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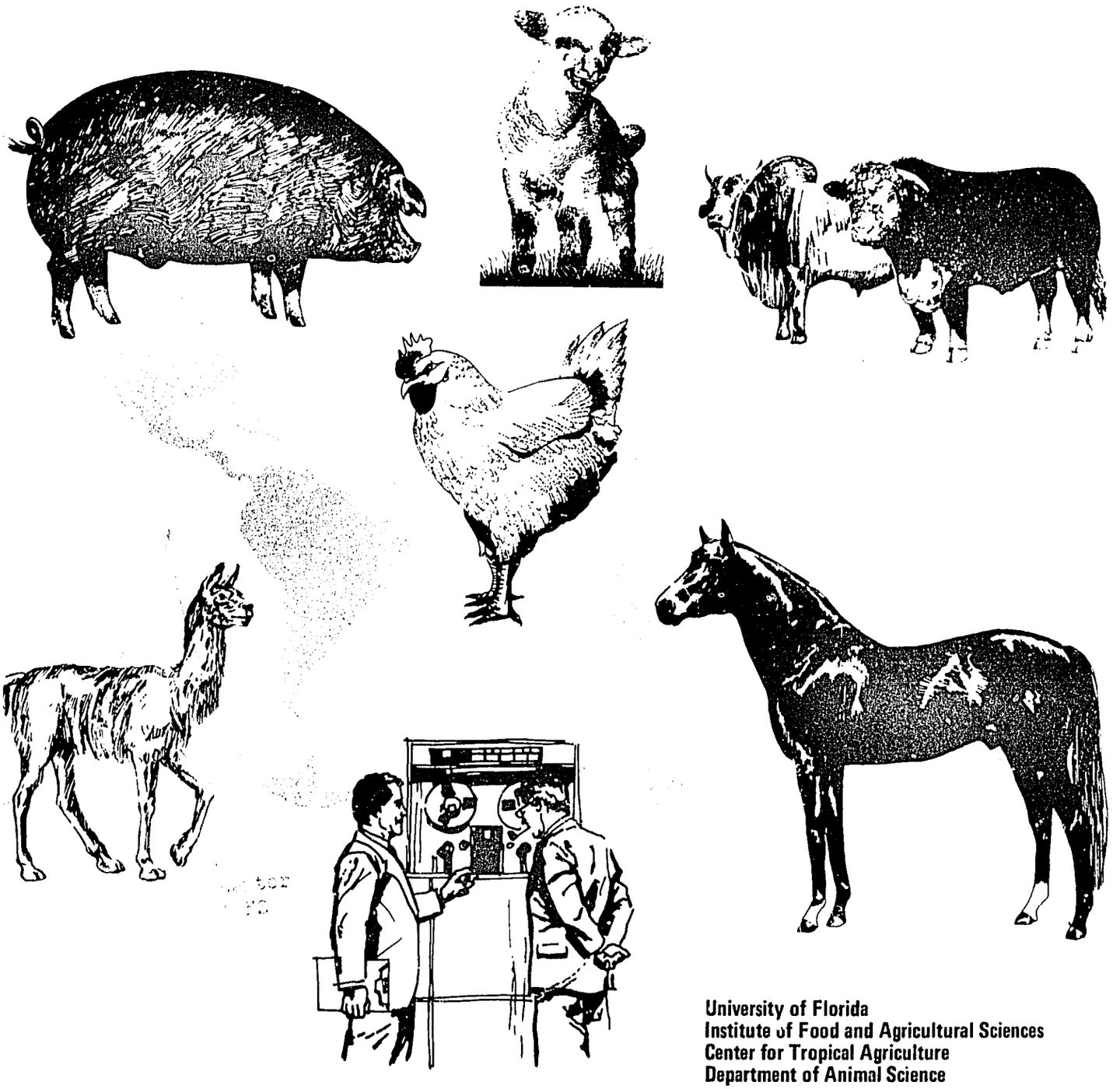

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LATIN AMERICAN TABLES OF FEED COMPOSITION

NUTRITIONAL DATA FOR

Argentina	Costa Rica	Guatemala	Paraguay
Barbados	Dominica	Guyana	Peru
Bolivia	Dominican Republic	Honduras	Puerto Rico
Brazil	Ecuador	Jamaica	Surinam
British Honduras	El Salvador	Mexico	Trinidad - Tobago
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1974

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PREFACE

These Latin American Tables of Feed Composition include analyses of feedstuffs from most countries of Latin America. It is a combined effort by the Latin American countries, the University of Florida, Utah State University and the United States Agency for International Development. The object is to record in one publication the information available for a given feed.

The Tables of Feed Composition include also appropriate analytical data from the United States and Canada. These data are used for a particular feedstuff when applicable Latin American information (chemical or biological) is not available to make more meaningful tables.

Scientific names have been used as the first component of the names as a feed is identified by the scientific name in Latin America. Common, local and area names are also included in cross references.

An International nomenclature is used.

The first edition of Latin American Tables of Feed Composition was published in June 1972. It was a preliminary copy and represented a limited number of analyses on most feeds. This second edition is based on more than 4 times the number of feed analyses over the previous edition published one year earlier. The first edition was available only in English while the second edition is available also in Spanish and Portuguese.

Both a complete atlas and an abridged edition of the Latin American Feed Tables are available. The abridged edition represents the selected feeds and nutrients most commonly used in Latin American livestock diets, whereas the Atlas edition lists every feed analysis received by the project center for processing.

This publication is the result of a continuing program of collection and recording of feed composition. Therefore, in the future it will be revised and updated periodically as new information is accumulated. The authors hope that the changes in the present edition will be useful and that the tables contain a minimum of errors. We request users of the tables to communicate errors and suggestions for further improvements in later editions.

It is hoped this publication will be of assistance to feed manufacturers, research specialists, teachers, students, extension specialists, farmers and others concerned with formulating livestock and poultry diets throughout Latin America. It should also be of value to others throughout the World who are interested in feed composition, especially tropically grown feeds. These feed composition tables should be beneficial for increasing animal production efficiency through the application of improved nutrition. Furthermore, it will aid greatly in identifying and describing feedstuffs for which data are seriously limiting or lacking.

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The project leaders wish to acknowledge the possibility of unintentional omission of institutions or individual collaborators. Appreciation is also expressed to the many individuals in Universities, Government Institutions, Industrial Companies and other organizations who have contributed toward the success of the Feed Composition Project. For institutions presently in the process of supplying data, the next revision will acknowledge their contributions.

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GUIDE FOR USE OF FEED COMPOSITION TABLES

INTERNATIONAL NOMENCLATURE

The nomenclature of the feeds under which the analytical data are shown is based on a scheme proposed by Harris *et al**, which gives to each feed a unique generic name. These names, called International names, give, to the extent that the information is available, a qualitative description of the feed. A complete International name consists of as many as nine components, written out in linear form, with components separated by commas.

The components are:

- Scientific name (genus and species)
- Variety or kind
- Common name of feed
- Part of plant, animal or feed product
- Process(es) and treatment(s) undergone before fed to animal
- Stage of maturity (as applicable)
- Cutting or crop (as applicable)
- Grade or quality designations
- Classification

Feeds of the same origin (or species, variety or kind if known) have been grouped into eight classes each of which is designated at the end of the International name by a number in parentheses. This number forms the last term of the name of a feed, and is also the first digit in its six digit International reference number.

*Harris, Lorin E., J. Malcolm Asplund and Earle W. Crampton. 1968. An International feed nomenclature and methods for summarizing and using feed data to calculate diets. Utah Agr. Exp. Sta. Bul. 479.

The numbers and the classes which they designate are:

Code	Class description
(1)	Dry forages and roughages Hay Legume Nonlegume Straw Fodder (aerial part w ears w husks or w heads) Stover (aerial part wo ears wo husks or wo heads) Other products with more than 18 per cent fiber Hulls Shells

This class includes all forages and roughages cut and cured. Forages or roughages are low in net energy per unit weight, usually because of the high fiber content though sometimes because the water content is high. According to the nomenclature, products that in the dry state contain more than 18 per cent crude fiber are classified as forages and roughages. Thus, in addition to forages, such products as oat hulls, peanut hulls, and cottonseed hulls are classified as roughages and are included in this group.

(2) Pasture, range plants, and forages fed green.

Included in this group are all forage feeds not cut and cured. For example: all feeds cut and fed green, or feeds cured on the stem, such as dormant range plants. The term "fresh" is used as a process term for most of these feeds though they may be dry and weathered when consumed.

(3) Silages
- Maize
- Legume
- Grass

(4) Energy feeds
- Cereal grains
  - Low in cellulose
  - High in cellulose

Mill by-products
  Low in cellulose
  High in cellulose
Fruits
Nuts
Roots

Products with less than 20 per cent protein and less than 18 per cent crude fiber are classified as energy feeds.

(5) Protein supplements
  Animal
  Avian
  Marine
  Milk
  Plant

Products which contain 20 per cent or more of protein.

(6) Mineral supplements

(7) Vitamin supplements

(8) Additives
  Antibiotics
  Coloring material
  Flavors
  Hormones
  Medicants

The guide lines for classification are approximate and there is some overlapping. The feedstuffs have been classified in this manner because each class has certain properties that are considered in balancing diets.

The scientific name comes first in each International name followed by the component terms. The following Table shows how three feeds are named using the nomenclature system presented in tabular form:

Table 1. Examples of International Nomenclature

Components of Name	Feed No. 1	Feed No. 2	Feed No. 3
Genus (of parent material)	*Zea*	*Digitaria*	*Gossypium*
Species	*mays*	*decumbens*	*spp*
Variety or kind	*indentata*	—	—
Common name	corn	pangola-grass	cotton
Part eaten	aerial part	aerial part	seeds w some hulls
Process(es) and treatment(s) to which product has been subjected	ensiled	fresh fertilized	solv extd grnd
Stage of maturity	—	late bloom	—
Cutting or crop	—	cut 1	—
Grade or quality designations	—	—	mn 36% protein
Classification	(3) (silages)	(2) (pasture, range plants, and forages fed green)	(5) (protein supplements)
Reference No.	3-02-512	2-10-388	5-01-632

Thus, the International names of the three feeds are written as follows:

No. 1: *Zea mays*, corn, aerial part, ensiled, (3)
No. 2: *Digitaria decumbens*, pangolagrass, aerial part, fresh fertilized, late bloom, cut 1, (2)
No. 3: *Gossypium spp*, cotton, seeds w some hulls, solv extd grnd, mn 36% protein, (5)

The six digit reference number listed after each name may be used as the "numerical name" of a feed when performing linear programming with electronic computers. Note that the first digit of the reference number of a feed is its classification designation.

Abbreviations have been devised for many of the terms used in the International feed system (Table 2). Stage of maturity terms are given in Table 3. See Table 4 for weight-unit conversion factors and Table 5 for weight equivalents.

LOCATING NAMES IN THE TABLES

To locate in Tables of Feed Composition the International name of a feed, one must know its scientific name. A conversion of common to scientific names is given in Table 9. For feeds of vegetable derivation, the scientific name (Genus, species, variety) of the plant is used.

For feeds of animal derivation, the first and second component in the name is the scientific name (Genus and species of the animal) e.g., *Bos spp*, *Brevoortia tyrannus*, *Equus caballus* or *Gallus domesticus*).

When the specific derivation of the feed is not known, the word "animal", "fish" or "poultry" is used in place of the scientific name.

Many feeds are sold in Latin America from the United States. Such feeds have Association of American Feed Control Officials (AAFCO) names. In addition, some feeds have Latin American regional or local names. These names are in alphabetical order and are cross-referenced to the international names.

ANALYTICAL DATA

The analytical data are expressed in the metric system and are shown on an "as fed" as well as a "dry" basis (see Tables on Feed Composition). In addition to the means calculated for each nutrient, the number of samples and co-efficient of variation (CV) are included. A CV is given for each constituent for which there are four or more analyses. Coefficients of variation are expressed as percentages of the mean and are directly comparable between sets of figures whose means are approximately the same. No CV values are included in the abridged edition.

Values in parenthesis were obtained from United States-Canada feed data in order to provide data otherwise unavailable. Certain values in the Tables of Feed Composition which were not determined experimentally are marked with an asterisk. These values were computed from appropriate equations which are designated by an asterisk in the steps below.

The following are the calculation procedures used in compiling data for the tables of feed composition.

- All data were calculated to a dry matter basis.
- Individual values for each nutrient were totaled and means calculated.
- The mean nitrogen-free extract was calculated with mean data as:

  mean nitrogen-free extract (%) = 100 − % ash − % crude fiber − % ether extract − % protein

  Nitrogen free extract is no longer used as an entity to calculate diets, but until sufficient data are available to replace TDN with the calorie system there is some advantage in having nitrogen-free extract so DE and ME may be calculated from TDN.

- Digestible energy for each animal kind was calculated as:

  DE in kcal/kg = GE (kcal/kg) x GE digestion coefficient

  From the mean digestible energy in kcal/kg or Mcal/kg

  From TDN for cattle and sheep:

  *DE in Mcal/kg = TDN% x 0.04409

  From TDN for horses:

  *DE in Mcal/kg = 0.0365 x TDN% + 0.172

  From TDN for swine:

  *DE in kcal/kg = TDN% x 44.09

- Metabolizable energy for each animal kind was calculated:

  From the average metabolizable energy in kcal/kg or Mcal/kg

  From nitrogen corrected metabolizable energy (ME_n) for chickens and turkeys (Harris)†

  From DE for ruminants and horses as:

  *ME in Mcal/kg = DE (Mcal/kg) x 0.82

  From DE for swine as:

  *ME in kcal/kg = (0.96 − 0.00202 x crude protein %) x DE (kcal/kg)

- Net energy for finishing cattle:

  From the average net energy for NE_m or NE_{gain}

  From Lofgreen and Garrett formula§

  $$*\text{Log } F = 2.2577 - 0.2213 \text{ ME}$$
  $$NE_m = 77/F$$
  $$NE_{gain} = 2.54 - 0.0314 \text{ F}$$

  In the above equations for cattle feeds, ME is the metabolizable energy in Mcal/kg of dry matter.

  F is the grams of dry matter per unit of $W^{0.75}$ required to maintain energy equilibrium.

  The data were converted to:

  NE_m, net energy for maintenance in Mcal/kg dry matter.

  NE_{gain}, net energy for gain in weight in Mcal/kg dry matter.

- Net energy for lactating cows (Mce and Flatt)‡

  *NE (Mcal/kg dry matter) for lactating cows = 0.84 DE (Mcal/kg dry matter) − 0.77

  The values were decreased by 7.0% to compensate for variations in feedstuffs.

- Total digestible nutrients (TDN) for each animal kind were estimated by one of the procedures outlined below:

  From digestion coefficients as:

digestible protein in %	x 1
digestible crude fiber in %	x 1
digestible nitrogen free extract in %	x 1
digestible ether extract in %	x 2.25
TDN in % =	Total

  From average TDN

  *From regression equations (see Table 7)

  From DE for cattle and sheep:

  $$*\text{TDN } \% = \frac{\text{DE in Mcal/kg}}{0.04409}$$

  TDN % is not calculated from DE for swine

  From DE for horses as:

  *TDN % = 20.35 × DE (Mcal/kg) + 8.90

  This formula is only calculated for class 1 feeds

  From ME for cattle and sheep as:

  *TDN % = 27.65 × ME in Mcal/kg

  TDN % for horses and swine are not calculated from ME

  When sufficient data are available it is hoped that TDN values can be dropped.

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† National Research Council. 1966. Biological energy interrelationships and glossary of energy terms. 2nd ed. (Prepared by L. E. Harris.) NAS-NRC Pub. 1411. National Academy of Sciences, Washington, D.C.

§Lofgreen, G. P. and W. N. Garrett. 1968. A system for expressing net energy requirements and feed values for growing and finishing beef cattle. J. Animal Sci. 27:793-806.

‡Moe, P. W. and W. P. Flatt. 1969. Net energy value of feedstuffs for lactation. J. Dairy Sci. 52:928.

VITAMIN A STANDARDS

The international standard for vitamin A activity as related to vitamin A and β-carotene are as follows:

One IU of vitamin A = one USP unit
= vitamin A activity of 0.300 μg of crystalline vitamin A alcohol, which corresponds to 0.344 μg of vitamin A acetate or 0.550 μg of vitamin A palmitate

β-carotene is the standard for provitamin A
One IU of vitamin A = 0.6 μg of β-carotene
One mg of β-carotene = 1,667 IU of vitamin A

International standards for vitamin A are based on the utilization of vitamin A and β-carotene by the rat (see Table 8).

Because the various species do not convert carotene to vitamin A in the same ratio as rats, it is suggested that the conversion rates in Table 8 be used.

VARIABILITY IN COMPOSITION OF A FEED

Individual feed samples may vary widely from indicated averages set forth in these tables of feed composition. Variations are influenced by factors such as crop, variety, climate and soil conditions, storage conditions and nutritive level of animals used. Therefore, the values given should be used with judgment, to be related, if possible, to some analyses about the feed on hand. Values may be different in various publications because the data are summarized to date for each publication.

Table 2. Term Abbreviations Used in the International Feed Names

AAFCO	Association of American Feed Control Officials
Can	Canadian
CE	Canadian Eastern
CFA	Canada Feeds Act
CGA	Canada Grain Act
cp	chemically pure
CW	Canadian Western
dehy	dehydrated
extd	extracted
extn	extraction
extn unspecified	extraction unspecified
g	gram(s)
gr	grade
grnd	ground
ICU	International Chick Units
IU	International Units
kcal	kilocalories
kg	kilogram(s)
lb	pound(s)
mech	mechanical
mech extd	mechanical extracted, expeller extracted, hydraulic extracted, or old process
μg	microgram
Mcal	megacalories
mg	milligram
mm	millimeter
mn	minimum
mx	maximum
NRC	National Research Council
ppm	parts per million
s-c	sun-cured
solv extd	solvent extracted
spp	species
US	United States
USP	United States Pharmacopeia
w	with
wo	without
wt	weight

Table 3. Stage of maturity terms used in the International feed names

Preferred term	Definition	Comparable terms
Germinated	Stage in which the embryo in a seed resumes growth after a dormant period.	Sprouted
Early vegetative	Stage at which the plant is vegetative and before the stems elongate.	Fresh new growth Before heading out Before inflorescence emergence Immature Prebud stage Very immature Young
Late vegetative	Stage at which stems are beginning to elongate to just before blooming; first bud to first flowers.	Before bloom Bud stage Budding plants Heading to in bloom Heads just showing Jointing and boot (grasses) Prebloom Preflowering Stems elongated

Table 3. Stage of maturity terms used in the International feed names (continued)

Preferred term	Definition	Comparable terms
Early bloom	Stage between initiation of bloom and stage in which 1/10 of the plants are in bloom; some grass heads are in anthesis.	Early anthesis First flower Headed out In head Up to 1/10 bloom
Mid-bloom	Stage in which 1/10 to ⅔ of the plants are in bloom; most grass heads are in anthesis.	Bloom Flowering Flowering plants Half bloom In bloom Mid anthesis
Full bloom	Stage in which ⅔ or more of the plants are in bloom.	¾ to full bloom Late anthesis
Late bloom	Stage in which blossoms begin to dry and fall and seeds begin to form.	15 days after silking Before milk In bloom to early pod Late to past anthesis
Milk stage	Stage in which seeds are well formed but soft and immature.	After anthesis Early seed Fruiting In tassel Late bloom to early seed Past bloom Pod stage Post anthesis Post bloom Seed developing Seed forming Soft Soft immature
Dough stage	Stage in which the seeds are of dough-like consistency.	Dough stage Nearly mature Seeds dough Seeds well developed Soft dent
Mature	Stage in which plants are normally harvested for seed.	Dent Dough to glazing Fruiting Fruiting plants In seed Kernels ripe Ripe seed
Post ripe	Stage that follows maturity; seeds are ripe and plants have begun to weather (applies mostly to range plants).	Late seed Over ripe Very mature
Stem cured	Stage in which plants are cured on the stem; seeds have been cast and weathering has taken place (applies mostly to range plants).	Dormant Mature and weathered Seeds cast
Regrowth early vegetative	Stage in which regrowth occurs without flowering activity; vegetative crop aftermath; regrowth in stubble (applies primarily to fall regrowth in temperate climates); early dry season regrowth.	Vegetative recovery growth
Regrowth late vegetative	Stage in which stems begin to elongate to just before blooming; first bud to first flowers; regrowth in stubble with stem elongation (applies primarily to fall regrowth in temperate climates).	Recovery growth Stems elongating Jointing and boot (grasses)
For plants that do not bloom[a]:		
1 to 14 days growth	A specified length of time after plants have started to grow.	2 weeks' growth
15 to 28 days' growth	A specified length of time after plants have started to grow.	4 weeks' growth
29 to 42 days' growth	A specified length of time after plants have started to grow.	6 weeks' growth
43 to 56 days' growth	A specified length of time after plants have started to grow.	8 weeks' growth
57 to 70 days' growth	A specified length of time after plants have started to grow.	10 weeks' growth

[a]These classes are for species that remain vegetative for long periods and apply primarily to the tropics. When the name of a feed is developed, the age classes form part of the name (e.g., Alfalfa, aerial part, 15 to 28 days' growth). For plants growing longer than 70 days, the interval is increased by increments of 14 days.

Table 4. Weight-Unit Conversion Factors

Units Given	Units Wanted	For conversion multiply by
lb	g	453.6
lb	kg	0.4536
oz	g	28.35
kg	lb	2.2046
kg	mg	1,000,000.
kg	g	1,000.
g	mg	1,000.
g	μg	1,000,000.
mg	μg	1,000.
mg/g	mg/lb	453.6
mg/kg	mg/lb	0.4536
μg/kg	μg/lb	0.4536
mcal/kg	mcal/lb	0.4536
kcal/kg	kcal/lb	0.4536
kcal/lb	kcal/kg	2.2046
ppm	μg/g	1.
ppm	mg/kg	1.
ppm	mg/lb	0.4536
mg/kg	%	0.0001
ppm	%	0.0001
mg/g	%	0.1
g/kg	%	0.1

Table 5. Weight Equivalents

1 lb = 453.6 g = .4536 kg = 16 oz
1 oz = 28.35 g
1 kg = 1,000 g = 2.2046 lb
1 g = 1,000 mg
1 mg = 1,000 μg = .001 g
1 μg = .001 mg = .000001 g
1 μg per g or 1 mg per kg is the same as ppm

Table 6. Equations Used to Estimate Digestible Protein (Y) From Protein (X) for Five Animal Kinds and Four Feed Classes[a]

Animal kind	Feed class	Regression equation
Cattle	1	Y = 0.866 X - 3.06
Cattle	2	Y = 0.850 X - 2.11
Cattle	3	Y = 0.908 X - 3.77
Cattle	4	Y = 0.918 X - 3.98
Goats	1 and 2	Y = 0.933 X - 3.44
Goats	3	Y = 0.908 X - 3.77
Goats	4	Y = 0.916 X - 2.76
Horses	1 and 2	Y = 0.849 X - 2.47
Horses	3	Y = 0.908 X - 3.77
Horses	4	Y = 0.916 X - 2.76
Rabbits	1 and 2	Y = 0.772 X - 1.33
Sheep	1	Y = 0.897 X - 3.43
Sheep	2	Y = 0.932 X - 3.01
Sheep	3	Y = 0.908 X - 3.77
Sheep	4	Y = 0.916 X - 2.76

[a]Knight, Arlin D. and Lorin E. Harris. 1966. Digestible protein estimation for NRC feed composition tables. J. Anim. Sci. 25(2):593.

Table 7. Regression Equations to Estimate Total Digestible Nutrients† (Continued)

Animal kind	Feed class	Equation
Cattle	1	%*TDN = 92.464 − 3.338 (CF) − 6.945 (EE) − 0.762 (NFE) + 1.115 (Pr) + 0.031 $(CF)^2$ − 0.133 $(EE)^2$ + 0.036 (CF) (NFE) + 0.207 (EE) (NFE) + 0.100 (EE) (Pr) − 0.022 $(EE)^2$ (Pr)
	2	%*TDN = − 54.572 + 6.769 (CF) − 51.083 (EE) + 1.851 (NFE) − 0.334 (Pr) − 0.049 $(CF)^2$ + 3.384 $(EE)^2$ − 0.086 (CF) (NFE) + 0.687 (EE) (NFE) + 0.942 (EE) (Pr) − 0.112 $(EE)^2$ (Pr)
	3	%*TDN = − 72.943 + 4.675 (CF) − 1.280 (EE) + 1.611 (NFE) + 0.497 (Pr) − 0.044 $(CF)^2$ − 0.760 $(EE)^2$ − 0.039 (CF) (NFE) + 0.087 (EE) (NFE) − 0.152 (EE) (Pr) + 0.074 $(EE)^2$ (Pr)
	4	%*TDN = − 202.686 − 1.357 (CF) + 2.638 (EE) + 3.003 (NFE) + 2.347 (Pr) + 0.046 $(CF)^2$ + 0.647 $(EE)^2$ + 0.041 (CF) (NFE) − 0.081 (EE) (NFE) + 0.553 (EE) (Pr) − 0.046 $(EE)^2$ (Pr)
	5	%*TDN = − 133.726 − 0.254 (CF) + 19.593 (EE) + 2.784 (NFE) + 2.315 (Pr) + 0.028 $(CF)^2$ − 0.341 $(EE)^2$ − 0.008 (CF) (NFE) − 0.215 (EE) (NFE) − 0.193 (EE) (Pr) + 0.004 $(EE)^2$ (Pr)
Horses	1	%*TDN = 52.476 + 0.189 (CF) + 3.010 (EE) − 0.723 (NFE) + 1.590 (Pr) − 0.013 $(CF)^2$ + 0.564 $(EE)^2$ + 0.006 (CF) (NFE) + 0.114 (EE) (NFE) − 0.302 (EE) (Pr) − 0.106 $(EE)^2$ (Pr)
Sheep	1	%*TDN = 37.937 − 1.018 (CF) − 4.886 (EE) + 0.173 (NFE) + 1.042 (Pr) + 0.015 $(CF)^2$ − 0.058 $(EE)^2$ + 0.008 (CF) (NFE) + 0.119 (EE) (NFE) + 0.038 (EE) (Pr) + 0.003 $(EE)^2$ (Pr)
	2	%*TDN = − 26.685 + 1.334 (CF) + 6.598 (EE) + 1.423 (NFE) + 0.967 (Pr) − 0.002 $(CF)^2$ − 0.670 $(EE)^2$ − 0.024 (CF) (NFE) − 0.055 (EE) (NFE) − 0.146 (EE) (Pr) + 0.039 $(EE)^2$ (Pr)
	3	%*TDN = − 17.950 − 1.285 (CF) + 15.704 (EE) + 1.009 (NFE) + 2.371 (Pr) + 0.017 $(CF)^2$ − 1.023 $(EE)^2$ + 0.012 (CF) (NFE) − 0.096 (EE) (NFE) − 0.550 (EE) (Pr) + 0.051 $(EE)^2$ (Pr)
	4	%*TDN = 22.822 − 1.440 (CF) − 2.875 (EE) + 0.655 (NFE) + 0.863 (Pr) + 0.020 $(CF)^2$ − 0.078 $(EE)^2$ + 0.018 (CF) (NFE) + 0.045 (EE) (NFE) − 0.085 (EE) (Pr) + 0.020 $(EE)^2$ (Pr)
	5	%*TDN = − 54.820 + 1.951 (CF) + 0.601 (EE) + 1.602 (NFE) + 1.324 (Pr) − 0.027 $(CF)^2$ + 0.032 $(EE)^2$ − 0.021 (CF) (NFE) + 0.018 (EE) (NFE) + 0.035 (EE) (Pr) − 0.0008 $(EE)^2$ (Pr)
Swine	4	%*TDN = 8.792 − 4.464 (CF) + 4.243 (EE) + 0.866 (NFE) + 0.338 (Pr) + 0.0005 $(CF)^2$ + 0.122 $(EE)^2$ + 0.063 (CF) (NFE) − 0.078 (EE) (NFE) + 0.182 (EE) (Pr) − 0.011 $(EE)^2$ (Pr)

†In the equation CF = crude fiber, EE = ether extract, NFE = nitrogen free extract, Pr = protein.

Table 8. Conversion of β Carotene to Vitamin A for Different Species[a]

Species	Conversion mg β-Carotene to IU of Vitamin A mg IU	IU of Vitamin A Activity (calculated from carotene) %
Standard	1 = 1,667	100.0
Beef cattle	1 = 400	24.0
Dairy cattle	1 = 400	24.0
Sheep	1 = 400-500	24.0-30.0
Swine	1 = 500	30.0
Horses		
Growth	1 = 555	33.3
Pregnancy	1 = 333	20.0
Poultry	1 = 1,667	100.0
Dogs	1 = 833	50.0
Rats	1 = 1,667	100.0
Foxes	1 = 278	16.7
Cats	Carotene not utilized	
Mink	Carotene not utilized	
Men	1 = 556	33.0

[a]Beeson, W. M. 1965. Relative potencies of vitamin A and carotene for animals. Federation Proc. 24:924-926.

Table 9. CONVERSION OF COMMON TO SCIENTIFIC NAMES

COMMON NAME	SCIENTIFIC NAME
ACACIA, KNIFE	ACACIA CULTRIFORMIS
ACACIA, SWEET	ACACIA FARNESIANA
ACACIA, WRIGHT	ACACIA WRIGHTI
ACROCOMIA, MUCAJA	ACROCOMIA SCLEROCARPA
AGAVE, CENTURYPLANT	AGAVE AMERICANA
AGAVE, HENEQUEN	AGAVE FOURCROYDES
AGERATUM, TROPIC	AGERATUM CONYZOIDES
ALFALFA	MEDICAGO SATIVA
ALFILERIA	ERODIUM CICUTARIUM
ALKALI SACATON	SPOROBOLUS AIROIDES
ALMOND	PRUNUS AMYGDALUS
ALTERNANTHERA, RABBITMEAT	ALTERNANTHERA FICOIDEA
ALUMBARKTREE, BARBATIMAO	STRYPHNODENDRON BARBATIMAN
AMARANTH, DUBIENS	AMARANTHUS DUBIENS
AMARANTH, LOVE-LIES-BLEEDING	AMARANTHUS CAUDATUS
AMARANTH, REDROOT	AMARANTHUS RETROFLEXUS
AMARANTH, SLIM	AMARANTHUS HYBRIDUS
AMARANTH, SPINY	AMARANTHUS SPINOSUS
AMARANTH, VIRIDIS	AMARANTHUS VIRIDIS
ANACAHUITA	CORDIA BOISSIERI
ANATTOTREE	BIXA ORELLANA
ANCHOVY, RINGEN	ENGRAULIS RINGEN
APPLE, SYLVESTRIS	MALUS SYLVESTRIS
APRICOTS	PRUNUS ARMENIACA
ARRACACIA, APIO	ARRACACIA XANTHORRHIZA
ARROWROOT, BERMUDA	MARANTA ARUNDINACEA
ASPARAGUS	ASPARAGUS OFFICINALIS
AVOCADO, AMERICAN	PERSEA AMERICANA
BABASSU, MARTIUS	ORBIGNYA MARTIANA
BAHIAGRASS	PASPALUM NOTATUM
BALSAMSCALE, PANAMERICAN	ELYONURUS TRIPSACOIDES
BAMBOO, BUDDHA	BAMBUSA VENTRICOSA
BAMBOO, COMMON	BAMBUSA VULGARIS
BANANA, ACCUMINATA	MUSA ACCUMINATA
BANANA, COMMON	MUSA PARADISIACA SAPIENTUM
BARLEY	HORDEUM VULGARE
BARLEY, LEPORINUM	HORDEUM LEPORINUM
BARLEY, MUTICUM	HORDEUM MUTICUM
BARLEY, 2-ROW	HORDEUM DISTICHON
BAUHINIA, BELL	BAUHINIA FORFICATA
BEAN, ATROPURPUREUS	PHASEOLUS ATROPURPUREUS
BEAN, KIDNEY	PHASEOLUS VULGARIS
BEAN, LATHYROIDES	PHASEOLUS LATHYROIDES
BEAN, PANDURATUS	PHASEOLUS PANDURATUS
BEET, COMMON	BETA VULGARIS
BEET, SUGAR	BETA SACCHARIFERA
BENTGRASS, BREVICULMIS	AGROSTIS BREVICULMIS
BENTGRASS, COLONIAL	AGROSTIS TENUIS
BENTGRASS, STOLONIFERA	AGROSTIS STOLONIFERA
BERMUDAGRASS	CYNODON DACTYLON
BLADDERPOD	LESQUERELLA SPP
BLUEGRASS, ANNUAL	POA ANNUA
BLUEGRASS, CANDAMOANA	POA CANDAMOANA
BLUEGRASS, KENTUCKY	POA PRATENSIS
BLUEGRASS, LANUGINOSA	POA LANUGINOSA
BLUEGRASS, PINNATA	POA PINNATA
BLUESTEM, ANGLETON	ANDROPOGON NODOSUS
BLUESTEM, ANGUSTALUS	ANDROPOGON ANGUSTALUS

Table 9. CONVERSION OF COMMON TO SCIENTIFIC NAMES (Continued)

COMMON NAME	SCIENTIFIC NAME
BLUESTEM, AUSTRALIAN	ANDROPOGON INTERMEDIUS
BLUESTEM, BICORNIS	ANDROPOGON BICORNIS
BLUESTEM, BREVIFOLIUS	ANDROPOGON BREVIFOLIUS
BLUESTEM, CONDENSATUS	ANDROPOGON CONDENSATUS
BLUESTEM, EASTINDIES	ANDROPOGON ISCHAEMUM
BLUESTEM, FINO	ANDROPOGON FINO
BLUESTEM, GAYANUS	ANDROPOGON GAYANUS
BLUESTEM, HIRTIFLORUS	ANDROPOGON HIRTIFLORUS
BLUESTEM, LEUCOSTACHYUS	ANDROPOGON LEUCOSTACHYUS
BLUESTEM, MEDIUM	ANDROPOGON MEDIUM
BLUESTEM, RUFUS	ANDROPOGON RUFUS
BLUESTEM, SELLOANUS	ANDROPOGON SELLOANUS
BLUESTEM, SEMIBERBIS	ANDROPOGON SEMIBERBIS
BLUESTEM, SILVER	ANDROPOGON SACCHAROIDES
BLUESTEM, SQUARROSUS	ANDROPOGON SQUARROSUS
BLUESTEM, TEXAS	ANDROPOGON CIRRATUS
BLUESTEM, VIRGATUS	ANDROPOGON VIRGATUS
BOXWOOD, CUNEIFOLIA	SCHAEFFERIA CUNEIFOLIA
BRAZILNUT	BERTHOLLETIA EXCELSA
BREADFRUIT	ARTOCARPUS ALTILIS
BRISTLEGRASS, ARGENTINA	SETARIA ARGENTINA
BRISTLEGRASS, KNOTROOT	SETARIA GENICULATA
BRISTLEGRASS, LEIANTHA	SETARIA LEIANTHA
BRISTLEGRASS, LEUCAPILA	SETARIA LEUCAPILA
BRISTLEGRASS, NUNDI	SETARIA NUNDI
BRISTLEGRASS, PLAINS	SETARIA MACROSTACHYA
BRISTLEGRASS, SCANDENS	SETARIA SCANDENS
BRISTLEGRASS, SPHACELATA	SETARIA SPHACELATA
BRISTLEGRASS, SPLENDIDA	SETARIA SPLENDIDA
BROADBEAN	VICIA FABA
BROME, AULETICUS	BROMUS AULETICUS
BROME, LANATUS	BROMUS LANATUS
BROME, RESCUE	BROMUS CATHARTICUS
BROME, SMOOTH	BROMUS INERMIS
BUCKWHEAT, TARTARY	FAGOPYRUM, TATARICUM
BUFFALOGRASS	BUCHLOE DACTYLOIDES
BUFFELGRASS	PENNISETUM CILIARE
BULRUSH, CONGLOMERATUS	SCIRPUS CONGLOMERATUS
BULRUSH, MICROCEPHALUS	SCIRPUS MICROCEPHALUS
BULRUSH, RIGIDUS	SCIRPUS RIGIDUS
BUMELIA, WOOLLYBUCKET	BUMELIA LANUGINOSA
BUNDLEFLOWER, RAYADO	DESMANTHUS VIRGATUS
BURCLOVER, CALIFORNIA	MEDICAGO HISPIDA
BURROGRASS	SCLEROPOGON BREVIFOLIUS
BUTIAPALM, BRAZILIAN	BUTIA CAPITATA
BUTTERCUP, WATERCROWFOOT, HAIRLEAF	RANUNCULUS AQUATILIS CAPILLACEUS
BUTTERFLYPEA, PLUMIERI	CENTROSEMA PLUMIERI
BUTTERFLYPEA, PUBESCENS	CENTROSEMA PUBESCENS
CABBAGE	BRASSICA OLERACEA CAPITATA
CABBAGE, WILD	BRASSICA OLERACEA
CACAO	THEOBROMA CACAO
CALABASHTREE, COMMON	CRESCENTIA CUJETE
CALABASHTREE, CROSSLEAF	CRESCENTIA ALATA
CALENDULA, POTMARIGOLD	CALENDULA OFFICINALIS
CANARYGRASS	PHALARIS CANARIENSIS
CANARYGRASS, BULB	PHALARIS TUBEROSA
CANARYGRASS, BULBOSA	PHALARIS BULBOSA
CANARYGRASS, COERULESCENS	PHALARIS COERULESCENS

Table 9. CONVERSION OF COMMON TO SCIENTIFIC NAMES (Continued)

COMMON NAME	SCIENTIFIC NAME
CANARYGRASS, HIBRIDA	PHALARIS HIBRIDA
CANARYGRASS, REED	PHALARIS ARUNDINACEA
CANE, CONFINIS	ARUNDINARIA CONFINIS
CAPER, DOG	CAPPARIS FLEXUOSA
CARNAUBAPALM	COPERNICIA CERIFERA
CAROB BEAN	CERATONIA SILIQUA
CARPETGRASS	AXONOPUS SPP
CARROT, WILD	DAUCUS CAROTA
CASHEW, COMMON	ANACARDIUM OCCIDENTALE
CASSAVA, COMMON	MANIHOT ESCULENTA
CASTELA, ALLTHORN	CASTELA TEXANA
CASTORBEAN	RICINUS COMMUNIS
CATALINAGRASS	DISSANTHELIUM SPP
CATTAIL	TYPHA SPP
CATTLE	BOS TAURUS
CAULIFLOWER	BRASSICA OLERACEA BOTRYIS
CELERY, GARDEN	APIUM GRAVEOLENS DULCE
CELERY, WILD	APIUM GRAVEOLENS
CEREUS, MANDACARU	CEREUS JAMACARU
CEYLONMOSS	GRACILARIA SPP
CHAWSTICK, LATIFOLIA	GOUANIA LATIFOLIA
CHERIMOYA	ANNONA CHERIMOLA
CHESTNUT	CASTANEA SPP
CHICKEN	GALLUS DOMESTICUS
CHICKPEA, GRAM	CICER ARIETINUM
CHLORIS, FRINGED	CHLORIS CILIATA
CHLORIS, MANYSPIKED	CHLORIS POLYDACTYLA
CHOCOLATETREE	THEOBROMA SPP
CITRONELLAGRASS	CYMBOPOGON NARDUS
CITRUS, GRAPEFRUIT	CITRUS PARADISI
CITRUS, LEMON	CITRUS LIMON
CITRUS, LIME	CITRUS AURANTIFOLIA
CITRUS, ORANGE	CITRUS SINENSIS
CITRUS, ORANGE, MANDARIN	CITRUS RETICULATA
CITRUS, SOUR ORANGE	CITRUS AURANTIUM
CITRUS, TANGERINE	CITRUS RETICULATA
CLOVER, ALSIKE	TRIFOLIUM HYBRIDUM
CLOVER, CRIMSON	TRIFOLIUM INCARNATUM
CLOVER, LADINO	TRIFOLIUM REPENS
CLOVER, RED	TRIFOLIUM PRATENSE
CLOVER, STRAWBERRY	TRIFOLIUM FRAGIFERUM
CLOVER, WHITE	TRIFOLIUM REPENS
CLUSTERPEA, VIRGATUS	DIOCLEA VIRGATUS
COCKSPUR, AFRICAN WONDER	ECHINOCHLOA POLYSTACHYA
COCKSPUR, GULF	ECHINOCHLOA CRUSPAVONIS
COCKSPUR, SPECTABILIS	ECHINOCHLOA SPECTABILIS
COCONUT	COCOS NUCIFERA
COFFEE, ARABIAN	COFFEA ARABICA
COMFREY, PERIGRIUM	SYMPHYTUM PERIGRIUM
CONDALIA, KNIFELEAF	CONDALIA SPATHULATA
CORALBEAN, COMMON	ERYTHRINA CORALLODENDRUM
CORALBEAN, MICROPTERYX	ERYTHRINA MICROPTERYX
CORN	ZEA MAYS
CORN, DENT	ZEA MAYS INDENTATA
CORN, FLINT	ZEA MAYS INDURATA
CORN, OPAQUE 2	ZEA MAYS
CORN, WHITE	ZEA MAYS
COTTON, LEVANT	GOSSYPIUM HERBACEUM

Table 9. CONVERSION OF COMMON TO SCIENTIFIC NAMES (Continued)

COMMON NAME	SCIENTIFIC NAME
COTTON, SEAISLAND	GOSSYPIUM BARBADENSE
COTTON, UPLAND	GOSSYPIUM HIRSUTUM
COURBARIL	HYMENAEA COURBARIL
COWPEA, COMMON	VIGNA SINENSIS
CRAB	CALLINECTES SAPIDUS CANCER SPP PARALITHODES CAMSCHATICA
CRABGRASS	DIGITARIA SPP
CREOSOTEBUSH, COVILLE	LARREA TRIDENTATA
CRINKLELAWN	TRACHYPOGON SPP
CRINKLELAWN, VESTITUS	TRACHYPOGON VESTITUS
CROTALARIA, SHACKSHACK	CROTALARIA INCANA
CROTALARIA, SLENDERLEAF	CROTALARIA INTERMEDIA
CROTALARIA, SUNN	CROTALARIA JUNCEA
CROWFOOTGRASS, DURBAN	DACTYLOCTENIUM AEGYPTIUM
CUCUMBER	CUCUMIS SATIVUS
CUPGRASS, CARIB	ERIOCHLOA POLYSTACHYA
CUPGRASS, LOUISIANA	ERIOCHLOA PUNCTATA
CUTGRASS, CLUBHEAD	LEERSIA HEXANDRA
DALLISGRASS	PASPALUM DILATATUM
DANDELION, COMMON	TARAXACUM OFFICINALE
DASHEEN	COLOCASIA ESCULENTA
DAYFLOWER, CREEPING	COMMELINA NUDIFLORA
DAYFLOWER, VIRGINIA	COMMELINA VIRGINICA
DEERVETCH, BIRDSFOOT	LOTUS CORNICULATUS
DEERVETCH, QUIMEY	LOTUS QUIMEY
DEVILSCLAW, ALTHEAEFOLIA	PROBOSCIDEA ALTHEAEFOLIA
DIVIDIVI	CAESALPINIA CORIARIA
DOGWEED, MICROPOIDES	DYSSODIA MICROPOIDES
DOLICHOS, HYACINTH	DOLICHOS LABLAB
DROPSEED, RIGENS	SPOROBOLUS RIGENS
DROPSEED, SUBINCLUSUS	SPOROBOLUS SUBINCLUSUS
DROPSEED, WHORLED	SPOROBOLUS PYRAMIDATUS
EARPODTREE, GUANACASTE	ENTEROLOBIUM CYCLOCARPUM
EGG PLANT	SOLANUM MELONGENA
EUPATORIUM, CHRISTMASBUSH	EUPATORIUM ODORATUM
EUTERPEPALM, PRECATORIA	EUTERPE PRECATORIA
FESCUE, ALTA	FESTUCA ARUNDINACEA
FESCUE, DOLICHOPHYLLA	FESTUCA DOLICHOPHYLLA
FESCUE, FOXTAIL	FESTUCA MEGALURA
FESCUE, MEADOW	FESTUCA ELATIOR
FESCUE, ORTOPHILLA	FESTUCA ORTHOPHILLA
FESCUE, REED	FESTUCA ELATIOR ARUNDINACEA
FESCUE, SHEEP	FESTUCA OVINA
FIG, COMMON	FICUS CARICA
FINGERGRASS, PENTZ	DIGITARIA PENTZI
FINGERGRASS, SWAZILAND	DIGITARIA SWAZILANDENSIS
FINGERGRASS, WOOLLY	DIGITARIA ERIANTHA
FISH, ANCHOVY	ENGRAULIS SPP
FISH, CARP	CYPINUS CARPIO
FISH, MENHADEN	BREVOORTIA TYRANNUS
FISH, SALMON	ONCORHYNCHUS SPP SALMO SPP
FISH, SARDINE	CLUPEA SPP SARDINOPS SPP
FISH, SHARK	SELACHII (ORDER)
FLAMBOYANTTREE	DELONIX REGIA
FLATSEDGE, FLAVESCENS	CYPERUS FLAVESCENS
FLATSEDGE, LUZULAS	CYPERUS LUZULAS
FLAX, COMMON	LINUM USITATISSIMUM

Table 9. CONVERSION OF COMMON TO SCIENTIFIC NAMES (Continued)

COMMON NAME	SCIENTIFIC NAME
GALANGAL, SHELLFLOWER	ALPINIA SPECIOSA
GAMAGRASS, FASCICULATUM	TRIPSACUM FASCICULATUM
GAMAGRASS, GUATEMALA	TRIPSACUM LAXUM
GARLIC	ALLIUM SATIVUM
GLOBEAMARANTH, MARTIANA	GOMPHRENA MARTIANA
GLOBEMALLOW, BONARIENSIS	SPHAERALCEA BONARIENSIS
GLORYBIND, BATATAS	CONVOLVULUS BATATAS
GOOSEFOOT, QUINOA	CHENOPODIUM QUINOA
GOOSEGRASS	ELEUSINE INDICA
GRAMA, AMERICAN	BOUTELOUA AMERICANA
GRAMA, CHASEI	BOUTELOUA CHASEI
GRAMA, RED	BOUTELOUA TRIFIDA
GRAMA, SLENDER	BOUTELOUA FILIFORMIS
GRANADILLA, SWEET	PASSIFLORA LIGULARIS
GRAPE, EUROPEAN	VITIS VINIFERA
GUAVA, COMMON	PSIDIUM GUAJAVA
GUIANAORANGE, BAKURI	PLATONIA INSIGNIS
GUINEAGRASS	PANICUM MAXIMUM
GUMTREE, PANAMA	CASTILLA ELASTICA
HACKBERRY, SPINOSA	CELTIS SPINOSA
HARDINGGRASS	PHALARIS TUBEROSA STENOPTERA
HELIOTROPE, ANGIOSPERMUM	HELIOTROPIUM ANGIOSPERMUM
HIBISCUS, CHINESE	HIBISCUS ROSA-SINENSIS
HIBISCUS, KENAF	HIBISCUS CAMNABINUS
HONDURAS	IXOPHORUS UNISETUS
HOP, COMMON	HUMULUS LUPULUS
HORSE	EQUUS CABALLUS
HORSEBEAN	VICIA FABA EQUINA
HUAJILLO	ACACIA BERLANDIERI
INDIANWHEAT, PATAGONIA	PLANTAGO PATOGONICA
INDIGO	INDIGOFERA SPP
ITCHGRASS	ROTTBOELLIA EXALTATA
IXBUT	EUPHORBIA LANCIFOLIA
JACKBEAN, COMMON	CANAVALIA ENSIFORMIS
JARAGUA	HYPARRHENIA RUFA
JICAMA	CALOPOGONIUM CAERULEUM
JOBSTEARS	COIX LACRYMAJOBI
JOBSTEARS, EDULIS	COIX EDULIS
JOINTVETCH, AMERICAN	AESCHYNOMENE AMERICANA
JOINTVETCH, FALCATA	AESCHYNOMENE FALCATA
JUNGLEPLUM, TEMPISQUE	SIDEROXYLON TEMPISQUE
JUNGLERICE	ECHINOCHLOA COLONUM
KIKUYUGRASS	PENNISETUM CLANDESTINUM
KNOTGRASS	PASPALUM DISTICHUM
KUDZU, THUNBERG	PUERARIA THUNBERGIANA
KUDZU, TROPICAL	PUERARIA PHASEOLOIDES
KUDZUBEAN, JAVANICA	PUERARIA JAVANICA
LADYSMANTLE, PINNATA	ALCHEMILLA PINNATA
LANTANNA, COMMON	LANTANA CAMARA
LAUREL, PERSEA	LAURUS PERSEA
LEADTREE, LEUCOCEPHALA	LEUCAENA LEUCOCEPHALA
LEADTREE, WHITEPOPINAC	LEUCAENA GLAUCA
LEAFCUP, SONCHIFOLIA	POLYMNIA SONCHIFOLIA
LEEK	ALLIUM PORRUM
LETTUCE	LACTUCA SATIVA
LOBSTER	HOMARUS AMERICANUS
LOCO	ASTRAGALUS SPP

Table 9. CONVERSION OF COMMON TO SCIENTIFIC NAMES (Continued)

COMMON NAME	SCIENTIFIC NAME
LOVEGRASS, BOER	ERAGROSTIS CHLOROMELAS
LOVEGRASS, GOPHERTAIL	ERAGROSTIS CILIARIS
LOVEGRASS, MOURNING	ERAGROSTIS LUGENS
LOVEGRASS, SUPERBA	ERAGROSTIS SUPERBA
LOVEGRASS, WEEPING	ERAGROSTIS CURVULA
LUPINE, SOUTH AMERICAN	LUPINUS MUTABILIS
LUPINE, SWEET	LUPINUS ALBUS
LUPINE, YELLOW	LUPINUS LUTEUS
MALABARGOURD	CUCURBITA FICIFOLIA
MALANGA, PRIMROSE	XANTHOSOMA VIOLACEUM
MALANGA, YAUTIA	XANTHOSOMA SAGITTAEFOLIUM
MANGO, COMMON	MANGIFERA INDICA
MAURITIA, WINE	MAURITIA VINIFERA
MEDIC	MEDICAGO SPP
MELONS, PIE	CUCURBITA SPP
MESQUITE, COMMON	PROSOPIS CHILENSIS
MESQUITE, HONEY	PROSOPIS GLANDULOSA
MILKPEA, GLAUCESCENS	GALACTIA GLAUCESCENS
MILKPEA, JUSSIEVANA	GALACTIA JUSSIEVANNA
MILKPEA, STRIATA	GALACTIA STRIATA
MILKVETCH	ASTRAGALUS SPP
MILLET, FOXTAIL	SETARIA ITALICA
MINT	MENTHA SPP
MOLASSESGRASS	MELINIS MINUTIFLORA
MORNINGGLORY, PENTAPHYLLA	IPOMOEA PENTAPHYLLA
MORNINGGLORY, SAGITTATA	IPOMOEA SAGITTATA
MUCUNA, COWAGE	MUCUNA URENS
MUHLY, ANGUSTATA	MUHLENBERGIA ANGUSTATA
MUHLY, ERECTIFOLIA	MUHLENBERGIA ERECTIFOLIA
MUHLY, FASTIGIATA	MUHLENBERGIA FASTIGIATA
MUHLY, LIGULARIS	MUHLENBERGIA LIGULARIS
MUHLY, PERUVIAN	MUHLENBERGIA PERUVIANA
MUHLY, PURPLE	MUHLENBERGIA RIGIDA
MUHLY, PURPUSI	MUHLENBERGIA PURPUSI
MUHLY, RED	MUHLENBERGIA REPENS
MULBERRY, WHITE	MORUS ALBA
MUSKMELON	CUCUMIS MELO
MUSTARD, BLACK	BRASSICA NIGRA
NAPIERGRASS	PENNISETUM PURPUREUM
NATALGRASS	TRICHOLAENA REPENS
NEEDLEGRASS	STIPA SPP
NIGHTSHADE, ANDIGENUM	SOLANUM ANDIGENUM
NIGHTSHADE, SILVERLEAF	SOLANUM ELAEAGNIFOLIUM
NIGHTSHADE, SISYMBRIFOLIUM	SOLANUM SISYMBRIFOLIUM
OAK	QUERCUS, SPP
OATS, ELATIOR	AVENA ELATIOR
OATS	AVENA SATIVA
OILPALM, AFRICAN	ELAEIS GUINEENSIS
OLIVES	OLEA, EUROPAEA
ONION, GARDEN	ALLIUM CEPA
ORCHARDGRASS	DACTYLIS GLOMERATA
OXALIS, OKA	OXALIS CRENATA
OYSTERS	CRASSOSTREA SPP OSTREA SPP
PALM, COHUNE	ORBIGNYA COHUNE
PALMGRASS, POIRET	SETARIA POIRETIANA
PALOVERDE, BORDER	CERCIDIUM MACRUM
PANGOLAGRASS	DIGITARIA DECUMBENS
PANICUM, BLUE	PANICUM ANTIDOTALE

Table 9. CONVERSION OF COMMON TO SCIENTIFIC NAMES (Continued)

COMMON NAME	SCIENTIFIC NAME
PANICUM, BROWNTOP	PANICUM FASCICULATUM
PANICUM, HALLS	PANICUM HALLII
PANICUM, TORPEDO	PANICUM REPENS
PAPAYA	CARICA PAPAYA
PARAGRASS	PANICUM PURPURASCENS
PARSLEY, CURLY GARDEN	PETROSELINUM CRISPUM
PASPALUM	PASPALUM SPP
PASPALUM, SOUR	PASPALUM CONJUGATUM
PASSIONFLOWER, SOFTLEAF	PASSIFLORA MOLLISSIMA
PEA, GARDEN	PISUM SATIVUM
PEACHES	PRUNUS PERSICA
PEACHPALM	GUILIELMA GASIPAES
PEANUT	ARACHIS HYPOGAEA
PEAR, COMMON	PYRUS COMMUNIS
PEARLMILLET	PENNISETUM GLAUCUM
PEAVINE	LATHYRUS SPP
PENCILFLOWER, GRACILIS	STYLOSANTHES GRACILIS
PENNISETUM, MEXICAN	PENNISETUM MEXICANUM
PIGEONPEA	CAJANUS CAJAN
PIGEONWINGS, ASIAN	CLITORIA TERNATEA
PINEAPPLE	ANANAS COMOSUS
PIPTADENIA, LONGPOD	PIPTADENIA MACROCARPA
PLANETREE, ORIENTAL	PLATANUS ORIENTALIS
PLANTAIN	PLANTAGO SPP
PLUM, GARDEN	PRUNUS DOMESTICA
POLYPODY, LEPIDOPTERIS	POLYPODIUM LEPIDOPTERIS
PORLIERIA, TEXAS	PROLIERIA AUGUSTIFOLIA
POTATO	SOLANUM TUBEROSUM
PRICKLYPEAR, COMMON	OPUNTIA VULGARIS
PUMMELO	CITRUS GRANDIS
PUMPKINS	CUCURBITA PEPO
PUMPWOOD, FERREYRAE	CECROPIA FERREYRAE
QUAKINGGRASS, SUBAUSTATA	BRIZA SUBAUSTATA
QUINCE, COMMON	CYDONIA OBLONGA
RADISH, GARDEN	RAPHANUS SATIVUS
RAMIE	BOEHMERIA NIVEA
RAPE, ARGENTINE	BRASSICA NAPUS
RAPE, POLISH	BRASSICA CAMPESTRIS
RAPE, WINTER	BRASSICA NAPUS
REDPEPPER, BUSH	CAPSICUM FRUTESCENS
REDPEPPER, EXIMIUM	CAPSICUM EXIMIUM
REDTOP	AGROSTIS ALBA
REEDGRASS	CALAMAGROSTIS SPP
RHODESGRASS	CHLORIS GAYANA
RICE	ORYZA SATIVA
RICEGRASS, HOLCIFORMIS	ORYZOPSIS HOLCIFORMIS
RICEGRASS, NAPOSTAENSE	PIPTOCHAETIUM NAPOSTAENSE
ROSELLE	HIBISCUS SABDARIFFA
RUSH, IMBRICATUS	JUNCUS IMBRICATUS
RUSH, RIGIDUS	JUNCUS RIGIDUS
RYE	SECALE CEREALE
RYEGRASS, ITALIAN	LOLIUM MULTIFLORUM
RYEGRASS, PERENNIAL	LOLIUM PERENNE
SAFFLOWER	CARTHAMUS TINCTORIUS
SAINT AUGUSTINEGRASS	STENOTAPHRUM SECUNDATUM
SALTBUSH, AUSTRALIAN	ATRIPLEX SEMIBACCATA
SALTBUSH, PENTANDRA	ATRIPLEX PENTANDRA

Table 9. CONVERSION OF COMMON TO SCIENTIFIC NAMES (Continued)

COMMON NAME	SCIENTIFIC NAME
SALTGRASS, HUMILIS	DISTICHLIS HUMILIS
SALTGRASS, SEASHORE	DISTICHLIS SPICATA
SAMAN, RAINTREE	SAMANEA, SAMAN
SANBUR	CENCHRUS SPP
SATINTAIL, CONTRACTA	IMPERATA CONTRACTA
SEALETTUCE	ULVA SPP
SEDGE	CAREX SPP
SENNA, COFFEE	CASSIA OCCIDENTALIS
SENNA, SICKLE	CASSIA TORA
SENNA, SPECTABILIS	CASSIA SPECTABILIS
SESAME	SESAMUM INDICUM
SESAME, BRASILIENSE	SESAMUM BRASILIENSE
SESAME, ORIENTAL	SESAMUM INDICUM
SETILLA	CHAETIUM BROMOIDES
SHAD, NICARAGUAN	GLIRICIDIA SEPIUM
SHRIMP	PANDALUS SPP PENAEUS SPP
SIDA	SIDA SPP
SIGNALGRASS	BRACHIARIA SPP
SILKWORM	BOMBIX MORI
SILVERLEAF, TEXAS	LEUCOPHYLLUM FRUTESCENS
SKELETONGRASS, RADIATUS	GYMNOPOGON RADIATUS
SMUTGRASS, RATTAIL	SPOROBOLUS POIRETII
SMUTGRASS, WEST INDIES	SPOROBOLUS INDICUS
SORGHUM	SORGHUM VULGARE
SORGHUM, JOHNSONGRASS	SORGHUM HALEPENSE
SORGHUM, KAFIR	SORGHUM VULGARE CAFFRORUM
SORGHUM, MILO	SORGHUM VULGARE SUBGLABRESCENS
SORGHUM, PERENNIAL	SORGHUM ALMUM
SORGHUM, SUDANGRASS	SORGHUM VULGARE SUDANENSE
SORREL, SHEEP	RUMEX ACETOSELLA
SOURGRASS	TRICHACHNE INSULARIS
SOYBEAN	GLYCINE MAX
SOYBEAN, PERENNIAL	GLYCINE WIGHTII
SPIDERGRASS	ARISTIDA TERNIPES
SPIDERLING, PANICULATA	BOERHAAVIA PANICULATA
SPIDERLING, SCARLET	BOERHAAVIA COCCINEA
SPIKESEDGE, GENICULATA	ELEOCHARIS GENICULATA
SPINYCLUBPALM	BACTRIS SPP
SPRANGLETOP, TROPICS	LEPTOCHLOA VIRGATA
SQUASH, WINTER	CUCURBITA MAXIMA
STARGRASS	CYNODON PLECTOSTACHYUM
STEEKGRASS	TRACHYPOGON PLUMOSUS
SUGARCANE	SACCHARUM OFFICINARUM
SUNFLOWER, COMMON	HELIANTHUS ANNUUS
SUNFLOWER, MULTIFLANUS	HELIANTHUS MULTIFLANUS
SWAMP COUCH	HEMARTHRIA ALTISSIMA
SWEETCANE, JAPANESE	SACCHARUM SINENSIS
SWEETCLOVER, WHITE	MELILOTUS ALBA
SWEETGRASS, MEXICAN	HIEROCHLOE MEXICANA
SWEETPOTATO	IPOMOEA BATATAS
SWEETVETCH, SULLA	HEDYSARUM CORONARIUM
SWINE	SUS SCROFA
TALQUEZAL	PASPALUM VIRGATUM
TAMARINO	TAMARINDUS INDICA
TANGLEHEAD	HETEROPOGON CONTORTUS
TEFF	ERAGROSTIS ABYSSINICA
TEOSINTE, MEXICAN	EUCHLAENA MEXICANA
TESAJO	OPUNTIA LEPTOCAULIS
THREEAWN	ARISTIDA SPP
TIBISEE, PATENTIFLORA	LASIACIS PATENTIFLORA
TIBISEE, SORGHOIDEA	LASIACIS SORGHOIDEA
TICKCLOVER	DESMODIUM SPP

Table 9. CONVERSION OF COMMON TO SCIENTIFIC NAMES (Continued)

COMMON NAME	SCIENTIFIC NAME
TIMOTHY	PHLEUM PRATENSE
TOBOSA	HILARIA MUTICA
TOMATO	LYCOPERSICON ESCULENTUM
TOTAIPALM	ACROCOMIA TOTAI
TREADSOFTLY, PHYLLACANTHUS	CNIDOSCOLUS PHYLLACANTHUS
TREFOIL, BIG	LOTUS ULIGINOSUS
TRICHLORIS, FOURFLOWER	TRICHLORIS PLURIFLORA
TURNIP	BRASSICA RAPA
ULLUCUS, TUBER	ULLUCUS TUBEROSUS
VASEYGRASS	PASPALUM URVILLEI
VELVETBEAN, BENGA	STIZOLOBIUM ATERRIMUM
VELVETBEAN, DERRING	STIZOLOBIUM DEERINGIANUM
VELVETGRASS, COMMON	HOLCUS LANATUS
VERNALGRASS, SWEET	ANTHOXANTHUM ODORATUM
VETCH	VICIA SPP
WALNUT, PERSIAN	JUGLANS REGIA
WASTURTIUM, TUBER	TROPAEOLUM TUBEROSUM
WATERCRESS	RORIPPA NASTURTIUM-AQUATICUM
WATERHYACINTH, COMMON	EICHORNIA CRASSIPES
WATERMELON	CITRULLUS VULGARIS
WEAVERSBROOM	SPARTIUM JUNCEUM
WHEAT	TRITICUM AESTIVUM
WHEAT, DURUM	TRITICUM DURUM
WHEAT, GAINES	TRITICUM AESTIVUM
WHEAT, WHITE	TRITICUM AESTIVUM
WHEATGRASS, DESERTORUM	AGROPYRON DESERTORUM
WHEATGRASS, TALL	AGROPYRON ELONGATUM
WHITETOP-SEDGE CILIATA	DICHROMENA CILIATA
WILDRYE, RUSSIAN	ELYMUS JUNCEUS
WINDMILLGRASS	CHLORIS SPP
WOODLANDGRASS	PANICUM LAXUM
YAM, CUSHCUSH	DIOSCOREA TRIFIDA
YAM, WINGED	DIOSCOREA ALATA
YAMBEAN, AHIPA	PACHYRHIZUS AHIPA
YEAST	SACCHAROMYCES CEREVISIAE
YEAST, BREWERS	SACCHAROMYCES CEREVISIAE
YEAST, MINERAL	TORULA UTILIS
YEAST, TORULOPSIS	TORULOPSIS UTILIS
YUCCA	YUCCA SPP

Locating names in the Tables of Feed Composition . . . XII

For abbreviations in feed names see page XIV

For stage of maturity terms see page XIV

Analytical data marked with an (*) are
estimated by formula see page . XIII

Analytical values in parenthesis came from
United States or Canadian data

Data are reported on an "as fed" and a "dry"
basis (100% dry matter)

Classes of feeds (number is given after each feed name)

(1) dry roughage and forages
(2) pasture, range plants and forages fed green
(3) silages
(4) energy feeds
(5) protein supplements
(6) mineral supplements
(7) vitamin supplements
(8) additives

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free) Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	ACACIA CAVENIA		-	-	-	-	-	-	-	-	-
02	-SEEDS W PODS, (5)	5-17-416	92.	8.1	16.8	4.6	21.9	2.60*	2.78*	-	-
03			100.0	8.8	18.3	5.0	23.8	2.82*	3.02*	-	-
04	ACROCOMIA TOTAI, TOTAIPALM		-	-	-	-	-	-	-	-	-
05	-MEATS, MECH EXTD, (5)	5-10-100	93.	5.9	15.5	7.8	34.4	3.02*	3.26*	-	-
06			100.0	6.3	16.6	8.3	36.9	3.24*	3.50*	-	-
07	AEGOPOGON CENCHNOIDES		-	-	-	-	-	-	-	-	-
08	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-664	25.	2.7	8.5	0.6	2.4	0.59*	0.63*	-	-
09			100.0	10.9	33.8	2.3	9.5	2.35*	2.52*	-	-
10	AGAVE DEWEYANA		-	-	-	-	-	-	-	-	-
11	-LEAVES, CHOPPED, (2)	2-13-454	10.	0.9	2.8	0.1	0.6	0.27*	0.28*	-	-
12			100.0	8.6	26.9	1.4	5.6	2.66*	2.69*	-	-
13	AGAVE FOURCROYDES, AGAVE, HENEQUEN		-	-	-	-	-	-	-	-	-
14	-PULP, (1)	1-09-631	-	-	-	-	-	-	-	-	-
15			100.0	28.5	23.7	2.0	8.1	2.02*	1.93*	-	-
16	AGROSTIS ALBA, REDTOP		-	-	-	-	-	-	-	-	-
17	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-03-890	25.	2.5	7.2	0.5	2.4	0.65*	0.66*	-	-
18			100.0	10.0	28.7	2.1	9.6	2.60*	2.64*	-	-
19	AGROSTIS STOLONIFERA, BENTGRASS, STOLONIFERA		-	-	-	-	-	-	-	-	-
20	-AERIAL PART, FRESH, (2)	2-11-236	19.	2.3	4.1	0.5	2.1	0.57*	0.53*	-	-
21			100.0	12.1	21.6	2.6	11.1	2.99*	2.80*	-	-
22	ALCHEMILLA PINNATA, LADYSMANTLE, PINNATA		-	-	-	-	-	-	-	-	-
23	-AERIAL PART, FRESH, (2)	2-11-224	-	-	-	-	-	-	-	-	-
24			100.0	9.4	28.9	3.4	10.9	2.79*	2.68*	-	-
25	ALLIUM CEPA, ONION, GARDEN		-	-	-	-	-	-	-	-	-
26	-ENTIRE PLANT, FRESH, MATURE, (4)	4-13-223	12.	0.3	0.6	0.2	0.9	0.40*	0.44*	451.*	-
27			100.0	2.6	4.7	1.7	7.6	3.40*	3.75*	3822.*	-
28	AMARANTHUS VIRIDIS, AMARANTH, VIRIDIS		-	-	-	-	-	-	-	-	-
29	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-671	11.	2.4	1.9	0.2	2.6	0.26*	0.30*	-	-
30			100.0	20.6	16.9	1.5	22.4	2.23*	2.59*	-	-
31	ANANAS COMOSUS, PINEAPPLE		-	-	-	-	-	-	-	-	-
32	-AERIAL PART W MOLASSES ADDED,	3-13-623	-	-	-	-	-	-	-	-	-
33	CHOPPED ENSILED, (3)		100.0	12.6	28.4	2.0	7.5	2.48*	2.44*	-	-
34	-FRUIT, FRESH, (4)	4-08-122	12.	0.2	0.4	0.2	0.6	-	0.46*	474.*	-
35			100.0	1.7	3.3	1.7	5.0	-	3.83*	3915.*	-
36	ANDROPOGON BICORNIS, BLUESTEM, BICORNIS		-	-	-	-	-	-	-	-	-
37	-HAY, S-C, (1)	1-11-229	92.	6.8	33.0	1.4	3.8	2.05*	2.02*	-	-
38			100.0	7.5	35.9	1.5	4.1	2.23*	2.20*	-	-
39	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-672	30.	1.8	13.0	0.4	1.8	0.65*	-	-	-
40			100.0	6.0	42.6	1.2	5.9	2.14*	-	-	-
41	ANDROPOGON BREVIFOLIUS, BLUESTEM, BREVIFOLIUS		-	-	-	-	-	-	-	-	-
42	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-673	23.	3.2	7.3	0.2	1.4	0.58*	0.54*	-	-
43			100.0	13.8	31.8	0.9	6.0	2.55*	2.36*	-	-
44	ANDROPOGON CIRRATUS, BLUESTEM, TEXAS		-	-	-	-	-	-	-	-	-
45	-AERIAL PART, FRESH, (2)	2-11-233	27.	2.4	9.7	1.0	2.4	0.64*	0.69*	-	-
46			100.0	8.8	35.8	3.9	8.8	2.35*	2.55*	-	-
47	ANDROPOGON GAYANUS, BLUESTEM, GAYANUS		-	-	-	-	-	-	-	-	-
48	-AERIAL PART,	2-11-018	20.	1.5	8.7	0.3	1.2	0.43*	0.48*	-	-
49	FRESH, LATE VEGETATIVE, CUT 1, (2)		100.0	7.3	42.5	1.4	5.7	2.09*	2.36*	-	-
50	ANDROPOGON LEUCOSTACHYUS, BLUESTEM,		-	-	-	-	-	-	-	-	-
51	LEUCOSTACHYUS		-	-	-	-	-	-	-	-	-
52	-AERIAL PART, FRESH, MATURE, (2)	2-11-015	-	-	-	-	-	-	-	-	-
53			100.0	6.9	38.9	2.4	6.2	2.04*	2.47*	-	-
54	ANDROPOGON NODOSUS, BLUESTEM, ANGLETON		-	-	-	-	-	-	-	-	-
55	-HAY, S-C, (1)	1-11-231	90.	13.5	32.7	1.8	11.3	1.84*	1.92*	-	-
56			100.0	15.0	36.4	2.0	12.6	2.05*	2.14*	-	-
57	ANDROPOGON SEMIBERBIS, BLUESTEM, SEMIBERBIS		-	-	-	-	-	-	-	-	-
58	-AERIAL PART, FRESH, (2)	2-17-532	34.	-	-	-	1.9	-	-	-	-
59			100.0	-	-	-	5.6	-	-	-	-
60	ANDROPOGON VIRGATUS, BLUESTEM, VIRGATUS		-	-	-	-	-	-	-	-	-
61	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-808	18.	1.3	6.4	0.2	1.1	0.40*	0.43*	-	-
62			100.0	7.5	36.4	1.4	6.0	2.26*	2.45*	-	-
63	ANIMAL		-	-	-	-	-	-	-	-	-
64	-BLOOD, DEHY GRND, (5)	5-00-380	88.	5.9	1.1	2.1	74.2	-	2.46*	2654.*	2784.
65	BLOOD MEAL (CFA)		100.0	6.8	1.3	2.3	84.5	-	2.80*	3021.*	3169.
66	BLOOD MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
67	-BLOOD, SPRAY DEHY, (5)	5-00-381	85.	7.2	1.3	6.1	71.8	-	3.4[illegible]*	-	1156.
68	BLOOD FLOUR		100.0	8.4	1.6	7.2	84.4	-	4.01*	-	1360.
69	-CARCASS RESIDUE, DRY RENDERED DEHY	5-00-385	93.	32.4	5.1	11.7	43.9	-	-	-	-
70	GRND, MN 9% INDIGESTIBLE MATERIAL MX		100.0	34.8	5.4	12.5	47.0	-	-	-	-
71	4.4% PHOSPHORUS, (5)		-	-	-	-	-	-	-	-	-
72	MEAT MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
73	MEAT SCRAP		-	-	-	-	-	-	-	-	-
74	-CARCASS RESIDUE, DRY RENDERED DEHY	5-09-323	93.	17.1	3.6	14.6	59.4	-	-	-	-
75	GRND, MN 55% PROTEIN, (5)		100.0	18.3	3.9	15.6	63.6	-	-	-	-
76	-CARCASS RESIDUE W BLOOD, DRY OR WET	5-00-386	93.	23.2	9.3	8.9	57.1	-	2.97*	2464.	2677.
77	RENDERED DEHY GRND, MN 9% INDIGESTIBLE		100.0	25.1	10.0	9.6	61.6	-	3.21*	2660.	2889.
78	MATERIAL MX 4.4% PHOSPHORUS, (5)		-	-	-	-	-	-	-	-	-
79	MEAT MEAL TANKAGE (AAFCO)		-	-	-	-	-	-	-	-	-
80	DIGESTER TANKAGE		-	-	-	-	-	-	-	-	-
81	-CARCASS RESIDUE W BONE, DRY RENDERED	5-09-321	94.	27.4	1.3	13.5	49.6	-	2.29*	-	-
82	DEHY GRND, MN 45% PROTEIN, (5)		100.0	29.1	1.4	14.3	52.6	-	2.43*	-	-
83	-LIVERS, DEHY GRND, (5)	5-00-389	92.	8.8	1.3	14.1	62.0	-	3.99*	-	-
84	ANIMAL LIVER MEAL (CFA)		100.0	9.6	1.5	15.4	67.3	-	4.33*	-	-
85	LIVER MEAL		-	-	-	-	-	-	-	-	-
86	ANIMAL LIVER MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
87	-BONES, COOKED DEHY GRND, MN 10%	6-00-397	89.	62.4	1.8	6.2	23.2	-	0.78*	-	-
88	PHOSPHORUS, (6)		100.0	70.3	2.0	7.0	26.2	-	0.88*	-	-
89	FEEDING BONE MEAL (CFA)		-	-	-	-	-	-	-	-	-
90	-BONES, STEAMED DEHY GRND, (6)	6-00-400	95.	66.6	[illegible].9	4.6	20.3	-	-	-	1068.
91	BONE MEAL, STEAMED (AAFCO)		100.0	70.3	2.0	4.8	21.4	-	-	-	1127.
92	ANIMAL LIVER MEAL (CFA)		-	-	-	-	-	-	-	-	-
93	-SEE ANIMAL, LIVERS, DEHY GRND, (5)		-	-	-	-	-	-	-	-	-
94	ANIMAL LIVER MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
95	-SEE ANIMAL, LIVERS, DEHY GRND, (5)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	58.9*	63.0*	-	0.32	-	-	-	0.31	-	-	-	-	-	-	-	-	-	-	-
03	64.0*	68.4*	-	0.35	-	-	-	0.34	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	68.6*	74.0*	-	0.32	-	-	-	1.07	-	-	-	-	-	-	-	-	-	-	-
06	73.6*	79.4*	-	0.34	-	-	-	1.15	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	13.3*	14.3*	-	0.07	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
09	53.2*	57.1*	-	0.27	-	-	-	0.20	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	6.2*	6.3*	-	0.21	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-
12	60.4*	61.1*	-	2.00	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	45.8*	43.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	14.8*	15.0*	-	0.06	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
18	59.1*	59.8*	-	0.24	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	12.9*	12.1*	-	0.22	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
21	67.9*	63.6*	-	1.16	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	63.3*	60.9*	-	1.90	0.518	12.3	421.3	0.24	-	56.5	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9.1*	10.0*	10.2*	0.04	-	-	-	0.04	-	-	-	4.5	-	-	0.6	-	-	-	-
27	77.1*	85.2*	86.7*	0.30	-	-	-	0.31	-	-	-	38.4	-	-	5.3	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	5.8*	6.7*	-	0.32	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
30	50.6*	58.7*	-	2.76	-	-	-	0.71	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	56.2*	55.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	10.5*	10.7*	0.02	-	-	-	0.01	-	-	-	2.8	-	-	0.5	-	[illegible]	[illegible]	-
35	-	86.8*	88.8*	0.17	-	-	-	0.08	-	-	-	23.1	-	-	4.1	-	[illegible]	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	46.6*	45.9*	-	0.28	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
38	50.7*	49.9*	-	0.30	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
39	14.8*	-	-	0.05	-	-	-	0.03	-	-	-	-	-	-	-	-	-	[illegible]	-
40	48.6*	-	-	0.16	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	13.3*	12.3*	-	0.07	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
43	57.9*	53.6*	-	0.32	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	14.5*	15.7*	-	0.26	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
46	53.4*	57.9*	-	0.97	-	-	-	0.44	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9.7*	11.0*	-	0.08	-	4.3	11.7	0.04	0.31	-	-	-	-	-	-	-	-	-	-
49	47.4*	53.5*	-	0.41	-	21.0	57.3	0.20	1.52	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	46.4*	56.0*	-	-	0.022	1.5	30.8	0.27	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	41.8*	43.6*	-	0.79	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-
56	46.5*	48.5*	-	0.88	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	0.10	-	-	100.2	0.02	0.42	20.1	-	-	-	-	-	-	-	-	-
59	-	-	-	0.29	-	-	293.7	0.07	1.23	58.9	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	9.1*	9.8*	-	0.10	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
62	51.4*	55.5*	-	0.57	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	-	55.8	60.2	0.55	-	9.5	5.0	0.33	0.13	-	683.	29.9	2.9	-	5.8	1.09	5.92	0.97	0.88
65	-	63.5	68.5	0.62	-	10.9	5.7	0.38	0.14	-	777.	34.0	3.3	-	6.6	1.23	6.74	1.11	1.00
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	-	77.4*	-	1.63	-	7.5	3.6	0.44	-	-	258.	26.4	4.9	-	3.9	-	7.68	1.01	0.92
68	-	91.0*	-	1.92	-	8.8	4.2	0.52	-	-	304.	31.1	5.7	-	4.5	-	9.00	1.19	1.08
69	-	-	-	12.35	-	-	-	5.32	0.70	-	-	15.1	-	-	1.6	0.35	3.12	0.73	0.36
70	-	-	-	13.24	-	-	-	5.70	0.75	-	-	16.2	-	-	1.7	0.37	3.35	0.78	0.39
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	8.88	-	-	-	3.41	-	-	-	-	-	-	-	0.41	2.53	0.31	0.19
75	-	-	-	9.50	-	-	-	3.65	-	-	-	-	-	-	-	0.44	2.71	0.34	0.20
76	-	67.4*	69.1	6.11	0.153	39.0	19.3	4.97	0.57	-	2092.	37.2	2.2	-	2.2	0.46	3.78	0.71	0.54
77	-	72.8*	74.6	6.60	0.165	42.1	20.8	5.36	0.61	-	2258.	40.2	2.4	-	2.4	0.50	4.09	0.76	0.59
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	51.9*	-	8.01	-	-	-	4.18	-	-	-	-	-	-	-	-	-	-	-
82	-	55.0*	-	8.50	-	-	-	4.43	-	-	-	-	-	-	-	-	-	-	-
83	-	90.5*	-	0.30	0.134	88.9	7.3	1.04	-	-	11314.	204.0	29.0	-	36.3	0.90	4.81	1.23	0.59
84	-	98.3*	-	0.33	0.145	96.5	7.9	1.12	-	-	12281.	221.4	31.5	-	39.4	0.97	5.22	1.33	0.64
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	17.6*	-	24.52	-	17.8	8.2	10.68	-	-	-	4.0	2.1	-	1.3	-	-	-	-
88	-	19.9*	-	27.63	-	20.0	9.2	12.04	-	-	-	4.5	2.4	-	1.4	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	25.04	-	133.2	40.1	11.16	0.18	300.4	879.	12.4	5.3	-	1.3	0.32	4.02	0.14	0.11
91	-	-	-	26.44	-	140.7	42.3	11.78	0.19	317.1	928.	13.1	5.6	-	1.3	0.34	4.24	0.15	0.12
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	ANTHEPHORA HERMAPHRODITA		-	-	-	-	-	-	-	-	-
02	-AERIAL PART, FRESH, LATE BLOOM, (2)	2-11-993	25.	1.7	8.7	0.6	1.4	0.54*	0.61*	-	-
03			100.0	6.9	35.5	2.3	5.6	2.21*	2.51*	-	-
04	APIUM GRAVEOLENS, CELERY, WILD		-	-	-	-	-	-	-	-	-
05	-LEAVES, FRESH, (2)	2-01-196	18.	2.9	2.8	0.2	4.5	-	0.49*	-	-
06			100.0	16.4	15.8	1.1	25.4	-	2.77*	-	-
07	APIUM GRAVEOLENS, DULCE, CELERY, GARDEN		-	-	-	-	-	-	-	-	-
08	-DULCE GARDEN, STALKS, FRESH, MATURE, (4)	4-13-539	12.	1.5	2.4	0.2	0.6	0.19*	0.36*	289.*	-
09			100.0	12.3	19.7	1.6	4.9	1.58*	2.97*	2371.*	-
10	ARACHIS HYPOGAEA, PEANUT		-	-	-	-	-	-	-	-	-
11	-HAY NO NUTS, S-C GRND, (1)	1-03-627	89.	11.0	26.8	2.4	13.1	2.14*	2.11*	-	-
12			100.0	12.3	30.0	2.7	14.7	2.40*	2.37*	-	-
13	-HULLS, (1)	1-08-028	95.	7.0	54.0	1.2	7.7	-	-	-	-
14	PEANUT HULLS (AAFCO)		100.0	7.4	57.1	1.3	8.1	-	-	-	-
15	-KERNELS, EXTN UNSPECIFIED	5-03-647	91.	4.8	15.2	0.7	48.6	-	2.92*	-	-
16	GRND, 45% PROTEIN, (5)		100.0	5.3	16.8	0.8	53.5	-	3.21*	-	-
17	-KERNELS, MECH EXTD GRND CAKED, (5)	5-03-648	92.	4.9	6.8	7.0	45.8	3.35*	3.61*	-	-
18	PEANUT CAKE (CFA)		100.0	5.4	7.4	7.6	49.5	3.62*	3.91*	-	-
19	-KERNELS, SOLV EXTD GRND, MX 7% FIBER, (5)	5-03-650	92.	13.3	9.6	1.3	60.7	-	2.63*	-	2199.
20	SOLVENT EXTRACTED PEANUT MEAL (AAFCO)		100.0	14.4	10.5	1.4	66.1	-	2.86*	-	2391.
21	GROUNDNUT OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
22	PEANUT OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
23	-KERNELS W SKINS, FRESH, (5)	5-08-120	93.	3.4	3.7	48.7	25.8	-	-	-	-
24			100.0	3.6	4.0	52.4	27.7	-	-	-	-
25	ARISTIDA SPP, THREEAWN		-	-	-	-	-	-	-	-	-
26	-AERIAL PART, FRESH, (2)	2-04-838	-	-	-	-	-	-	-	-	-
27	WIREGRASS		100.0	8.4	31.0	3.3	3.3	2.65*	2.53*	-	-
28	ARISTIDA TERNIPES, SPIDERGRASS		-	-	-	-	-	-	-	-	-
29	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-810	25.	2.1	11.3	0.2	1.1	-	-	-	-
30			100.0	8.3	45.1	0.9	4.3	-	-	-	-
31	ARRACACIA XANTHORRHIZA, ARRACACIA, APIO		-	-	-	-	-	-	-	-	-
32	-ROOTS, COOKED, (4)	4-13-348	28.	0.9	0.8	1.2	1.2	0.87*	1.06*	1028.*	-
33			100.0	3.2	2.8	4.3	4.3	3.09*	3.76*	3659.*	-
34	ASTRAGALUS SPP, MILKVETCH		-	-	-	-	-	-	-	-	-
35	-AERIAL PART, FRESH, (2)	2-13-536	44.	5.4	9.0	1.3	10.1	1.23*	1.27*	-	-
36			100.0	12.2	20.5	3.0	23.0	2.81*	2.89*	-	-
37	ATRIPLEX SEMIBACCATA, SALTBUSH, AUSTRALIAN		-	-	-	-	-	-	-	-	-
38	-AERIAL PART,	2-13-643	-	-	-	-	-	-	-	-	-
39	FRESH, EARLY VEGETATIVE, CUT 1, (2)		100.0	7.2	25.6	2.1	6.5	2.91*	2.80*	-	-
40	AVENA SATIVA, OATS		-	-	-	-	-	-	-	-	-
41	-BRAN, (1)	1-11-241	93.	5.0	25.3	3.7	6.4	2.56*	2.38*	-	-
42			100.0	5.4	27.3	4.0	6.9	2.76*	2.56*	-	-
43	-HAY, S-C, (1)	1-03-280	90.	6.7	27.5	1.7	4.7	2.10*	2.07*	-	-
44			100.0	7.5	30.6	1.9	5.3	2.34*	2.30*	-	-
45	-HULLS, (1)	1-03-281	92.	5.6	27.4	1.7	4.9	1.43*	1.43*	1130.*	272.
46	OAT HULLS (CFA)		100.0	6.0	29.6	1.8	5.3	1.55*	1.55*	1224.*	295.
47	OAT HULLS (AAFCO)		-	-	-	-	-	-	-	-	-
48	-STRAW, (1)	1-03-283	92.	6.7	36.5	2.0	4.4	2.13*	1.76	-	-
49			100.0	7.3	39.6	2.2	4.8	2.31*	1.91	-	-
50	-AERIAL PART, FRESH, (2)	2-03-292	35.	2.7	9.8	1.0	2.6	0.99*	1.02*	-	-
51			100.0	7.7	28.2	2.9	7.5	2.86*	2.95*	-	-
52	-AERIAL PART, FRESH, MATURE, (2)	2-03-290	-	-	-	-	-	-	-	-	-
53			100.0	8.0	33.6	2.2	5.7	2.31*	2.53*	-	-
54	-AERIAL PART, ENSILED, (3)	3-03-298	20.	2.2	6.5	1.0	2.5	0.49*	0.53*	-	-
55			100.0	11.4	33.1	5.0	12.5	2.51*	2.69*	-	-
56	-CEREAL BY-PRODUCT, MX 4% FIBER, (4)	4-03-303	91.	3.4	7.8	5.8	13.0	3.19*	3.70*	3231.*	341.
57	OAT MIDDLINGS (CFA)		100.0	3.7	8.6	6.4	14.4	3.52*	4.09*	3566.*	376.
58	OAT MEAL		-	-	-	-	-	-	-	-	-
59	FEEDING OAT MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
60	-GRAIN, (4)	4-03-309	89.	3.9	12.6	4.7	9.9	2.69*	2.88*	2735.*	1262.
61			100.0	4.4	14.2	5.3	11.2	3.03*	3.24*	3077.*	1420.
62	-GROATS, (4)	4-03-331	90.	1.7	3.0	6.6	11.8	3.50*	3.47*	3427.*	-
63	OAT GROATS (CFA)		100.0	1.9	3.3	7.3	13.0	3.88*	3.85*	3795.*	-
64	OAT GROATS (AAFCO)		-	-	-	-	-	-	-	-	-
65	AXONOPUS AFFINIS, CARPETGRASS, COMMON		-	-	-	-	-	-	-	-	-
66	-AERIAL PART, FRESH, (2)	2-09-399	32.	3.5	9.5	0.8	3.2	0.84*	0.85*	-	-
67			100.0	10.7	29.2	2.5	9.9	2.57*	2.62*	-	-
68	AXONOPUS AUREUS, CARPETGRASS, AUREUS		-	-	-	-	-	-	-	-	-
69	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-872	25.	2.2	10.4	0.3	1.2	0.57*	0.57*	-	-
70			100.0	8.8	41.4	1.0	4.8	2.26*	2.29*	-	-
71	AXONOPUS CHRYSODACTYLUS, CARPETGRASS,		-	-	-	-	-	-	-	-	-
72	CHRYSODACTYLUS		-	-	-	-	-	-	-	-	-
73	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-874	48.	4.4	17.2	0.4	1.9	1.13*	1.15*	-	-
74			100.0	9.1	35.6	0.9	4.0	2.33*	2.37*	-	-
75	AXONOPUS COMPRESSUS, CARPETGRASS, TROPICAL		-	-	-	-	-	-	-	-	-
76	-HAY, S-C, (1)	1-11-221	91.	8.7	27.2	0.6	9.6	2.05*	2.12*	-	-
77			100.0	9.6	29.9	0.7	10.5	2.26*	2.32*	-	-
78	-AERIAL PART, FRESH, (2)	2-01-141	33.	3.1	7.7	0.6	2.9	0.95*	0.92*	-	-
79			100.0	9.6	23.4	1.8	8.7	2.90*	2.81*	-	-
80	-AERIAL PART,	2-10-018	26.	3.0	8.2	0.5	2.3	0.63*	0.65*	-	-
81	FRESH, 29 TO 42 DAYS' GROWTH, (2)		100.0	11.6	31.9	1.9	8.9	2.42*	2.51*	-	-
82	AXONOPUS MICAY, CARPETGRASS, MICAY		-	-	-	-	-	-	-	-	-
83	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-13-876	29.	3.1	8.8	0.4	3.1	0.75*	0.74*	-	-
84			100.0	10.8	30.4	1.2	10.8	2.61*	2.55*	-	-
85	AXONOPUS SCOPARIUS, CARPETGRASS, IMPERIAL		-	-	-	-	-	-	-	-	-
86	-AERIAL PART,	2-10-096	15.	1.8	4.2	0.5	1.7	0.38*	0.38*	-	-
87	FRESH, 15 TO 28 DAYS' GROWTH, (2)		100.0	12.2	28.6	3.4	11.4	2.60*	2.63*	-	-
88	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-10-209	19.	1.7	6.2	0.3	1.7	0.46*	0.48*	-	-
89			100.0	9.2	32.6	1.7	8.8	2.45*	2.55*	-	-
90	-AERIAL PART, FRESH, MATURE, (2)	2-09-903	20.	1.4	7.4	0.5	2.0	0.46*	0.51*	-	-
91			100.0	7.0	36.9	2.6	9.9	2.30*	2.57*	-	-
92	-AERIAL PART,	2-10-396	18.	2.2	4.7	0.5	2.1	0.35*	0.48*	-	-
93	FRESH FERTILIZED, 43 TO 56 DAYS'		100.0	12.5	26.1	2.7	11.8	1.96*	2.69*	-	-
94	GROWTH, (2)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	12.3*	13.9*	-	0.07	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
03	50.2*	56.9*	-	0.27	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	11.1*	-	0.22	-	-	-	0.04	-	-	-	9.3	-	-	1.6	-	-	-	-
06	-	62.8*	-	1.24	-	-	-	0.23	-	-	-	52.5	-	-	9.0	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	4.4*	8.2*	6.6*	0.10	-	-	-	0.04	-	-	-	6.5	-	-	0.7	-	-	-	-
09	35.7*	67.4*	53.8*	0.82	-	-	-	0.33	-	-	-	53.3	-	-	5.7	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	48.5*	47.9*	-	1.63	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
12	54.4*	53.7*	-	1.63	-	-	-	0.20	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	66.2*	-	0.24	-	-	-	0.70	-	-	-	-	-	-	-	-	-	-	-
16	-	72.8*	-	0.26	-	-	-	0.77	-	-	-	-	-	-	-	-	-	-	-
17	76.0*	81.9*	-	0.16	-	-	-	0.21	-	-	-	-	-	-	-		0.02		
18	82.2*	88.6*	-	0.17	-	-	-	0.23	-	-	-	-	-	-	-		0.02		
19	-	59.6*	-	0.20	-	-	29.0	0.63	1.20	20.0	4397.	169.9	53.0	-	11.0	0.68	1.75	0.39	0.42
20	-	64.9*	-	0.22	-	-	31.5	0.69	1.30	21.7	4783.	184.8	57.6	-	12.0	0.74	1.91	0.42	0.45
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	0.05	-	-	-	0.43	-	-	-	70.0	-	-	1.6	-	-	-	-
24	-	-	-	0.05	-	-	-	0.47	-	-	-	75.2	-	-	1.7	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	60.2*	57.5*	-	0.19	0.042	4.7	129.2	0.07	-	29.4	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	0.05	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	0.18	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	19.7*	24.0*	23.3*	0.04	-	-	-	0.04	-	-	-	4.6	-	-	1.2	-	-	-	-
33	70.1*	85.3*	83.0*	0.14	-	-	-	0.14	-	-	-	16.4	-	-	4.3	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	27.9*	28.7*	-	0.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	63.6*	65.5*	-	1.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	65.9*	63.4*	-	-	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	58.0*	53.9*	-	0.13	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-
42	62.5*	58.0*	-	0.14	-	-	-	0.30	-	-	-	-	-	-	-	-	-	-	-
43	47.7*	46.9*	-	0.27	0.054	1.6	44.9	0.29	2.43	15.3	-	-	-	-	-	-	-	-	-
44	53.1*	52.1*	-	0.30	0.060	1.8	50.0	0.32	2.70	17.0	-	-	-	-	-	-	-	-	-
45	32.5	32.5	25.6	0.13	-	1.4	13.6	0.10	0.53	-	284.	7.5	3.3	-	6.5	0.06	0.14	0.07	0.07
46	35.2	35.2	27.8	0.14	-	1.5	14.8	0.11	0.58	-	308.	8.1	3.6	-	7.1	0.06	0.15	0.08	0.08
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	48.4	45.1	-	0.24	-	10.2	30.5	0.41	2.05	-	-	-	-	-	-	-	-	-	-
49	52.5	49.0	-	0.26	-	11.0	33.1	0.44	2.23	-	-	-	-	-	-	-	-	-	-
50	22.5*	23.2	-	0.18	-	6.7	16.9	0.09	-	-	-	-	-	-	-	-	-	-	-
51	64.9*	66.9	-	0.51	-	19.4	48.7	0.25	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	52.3*	57.3*	-	0.27	-	2.3	67.0	0.14	-	14.7	-	-	-	-	-	-	0.97	-	0.15
54	11.2*	12.0	-	0.13	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
55	57.0*	61.0	-	0.67	-	-	-	0.69	-	-	-	-	-	-	-	-	-	-	-
56	72.2*	84.0	73.3*	0.15	-	-	41.2	0.36	0.57	-	1107.	17.1	16.2	-	1.7	0.16	0.42	0.19	0.18
57	79.7*	92.7	80.9*	0.16	-	-	45.5	0.39	0.63	-	1222.	18.9	17.9	-	1.8	0.18	0.47	0.21	0.20
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	61.0*	65.3	62.0	0.20	0.026	-	-	0.27	0.42	-	945.	16.7	13.1	-	1.3	0.17	0.37	0.17	0.14
61	68.6*	73.4	69.8	0.23	0.029	-	-	0.30	0.47	-	1063.	18.7	14.8	-	1.5	0.19	0.42	0.19	0.16
62	79.4*	78.8*	77.7*	0.11	-	-	-	0.34	-	-	-	23.1	-	-	1.5	0.18	0.55	0.21	0.15
63	87.9*	87.2*	86.1*	0.12	-	-	-	0.38	-	-	-	25.6	-	-	1.7	0.20	0.61	0.23	0.17
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	18.9*	19.3*	-	0.02	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
67	58.3*	59.4*	-	0.06	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	12.8*	13.0*	-	0.03	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-
70	51.3*	52.0*	-	0.12	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	25.6*	26.0*	-	0.05	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
74	52.9*	53.7*	-	0.10	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	46.6*	48.0*	-	0.15	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
77	51.2*	52.7*	-	0.17	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
78	21.6*	21.0*	-	0.11	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
79	65.3*	63.8*	-	0.35	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
80	14.2*	14.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	54.9*	56.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	17.1*	16.7*	-	0.09	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
84	59.2*	57.8*	-	0.32	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	8.6*	8.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	58.9*	59.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	10.5*	10.9*	-	0.14	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
89	55.5*	57.7*	-	0.75	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
90	10.4*	11.7*	-	0.11	0.018	1.7	25.3	0.05	-	-	-	-	-	-	-	-	-	-	-
91	52.1*	58.3*	-	0.56	0.090	8.4	126.5	0.27	-	-	-	-	-	-	-	-	-	-	-
92	8.0	10.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	44.5	60.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free) Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	AXONOPUS SPP. CARPETGRASS		-	-	-	-	-	-	-	-	-
02	-HAY, S-C, (1)	1-01-138	92.	14.3	27.7	0.8	4.4	1.81*	1.89*	-	-
03			100.0	15.6	30.1	0.8	4.8	1.97*	2.05*	-	-
04	BAMBUSA VULGARIS. BAMBOO, COMMON		-	-	-	-	-	-	-	-	-
05	-LEAVES, DEHY, (1)	1-10-444	92.	20.9	22.3	2.5	10.0	2.03*	1.95*	-	-
06			100.0	22.7	24.3	2.7	10.8	2.21*	2.12*	-	-
07	BAUHINIA SPP. BAUHINIA		-	-	-	-	-	-	-	-	-
08	BEET MOLASSES (AAFCO)		-	-	-	-	-	-	-	-	-
09	-SEE BETA SACCHARIFERA SUGAR,		-	-	-	-	-	-	-	-	-
10	MOLASSES, MN 48% INVERT SUGAR MN 79.5		-	-	-	-	-	-	-	-	-
11	DEGREES BRIX, (4)		-	-	-	-	-	-	-	-	-
12	BETA SACCHARIFERA. BEET, SUGAR		-	-	-	-	-	-	-	-	-
13	-AERIAL PART W CROWNS, FRESH, (2)	2-00-649	17.	3.4	1.9	0.4	2.7	0.46*	0.51*	-	-
14			100.0	19.9	11.0	2.3	15.6	2.69*	3.03*	-	-
15	-MOLASSES, MN 48%	4-00-668	79.	9.6	-	0.2	6.1	-	2.63*	-	1990.
16	INVERT SUGAR MN 79.5 DEGREES BRIX, (4)		100.0	12.2	-	0.3	7.7	-	3.33*	-	2515.
17	MOLASSES (CFA)		-	-	-	-	-	-	-	-	-
18	BEET MOLASSES (AAFCO)		-	-	-	-	-	-	-	-	-
19	-PULP, DEHY, (4)	4-00-669	91.	4.6	18.2	0.5	8.7	2.88*	2.92*	2924.*	636.
20	DRIED BEET PULP (CFA)		100.0	5.1	20.1	0.6	9.6	3.17*	3.22*	3223.*	701.
21	DRIED BEET PULP (AAFCO)		-	-	-	-	-	-	-	-	-
22	-PULP W MOLASSES, DEHY, (4)	4-00-672	92.	5.7	13.7	0.6	9.2	2.99*	3.19*	3080.*	659.
23			100.0	6.2	14.9	0.6	9.9	3.24*	3.46*	3342.*	715.
24	BETA SPP. BEET, MANGELS		-	-	-	-	-	-	-	-	-
25	-ROOTS, FRESH, (2)	2-00-637	13.	1.3	1.0	0.1	1.5	0.45*	0.48*	461.*	-
26	MANGEL, ROOTS		100.0	9.7	7.5	0.7	11.3	3.43*	3.65*	3486.*	-
27	BETA VULGARIS. BEET, COMMON		-	-	-	-	-	-	-	-	-
28	-AERIAL PART, FRESH, DOUGH STAGE, (2)	2-13-685	9.	2.2	1.5	0.1	1.6	0.22*	0.24*	-	-
29			100.0	23.3	15.8	0.6	16.6	2.36*	2.50*	-	-
30	BIXA ORELLANA. ANATTOTREE		-	-	-	-	-	-	-	-	-
31	BLOOD FLOUR		-	-	-	-	-	-	-	-	-
32	-SEE ANIMAL, BLOOD, SPRAY DEHY, (5)		-	-	-	-	-	-	-	-	-
33	BLOOD MEAL (CFA)		-	-	-	-	-	-	-	-	-
34	-SEE ANIMAL, BLOOD, DEHY GRND, (5)		-	-	-	-	-	-	-	-	-
35	BLOOD MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
36	-SEE ANIMAL, BLOOD, DEHY GRND, (5)		-	-		-	-	-	-	-	-
37	BOEHMERIA NIVEA. RAMIE		-	-	-	-	-	-	-	-	-
38	-AERIAL PART, DEHY, MIDBLOOM, (1)	1-10-583	89.	12.2	17.7	4.7	14.0	2.44*	2.38*	-	-
39			100.0	13.7	19.8	5.3	15.8	2.74*	2.67*	-	-
40	-AERIAL PART, DEHY GRND, (1)	1-10-581	89.	20.6	18.7	3.6	12.8	2.12*	2.00*	-	-
41			100.0	23.1	21.0	4.0	14.4	2.38*	2.25*	-	-
42	-AERIAL PART, FRESH, (2)	2-03-859	16.	2.7	3.2	0.7	3.1	0.40*	0.45*	-	-
43			100.0	17.1	20.3	4.3	19.2	2.51*	2.79*	-	-
44	BOERHAAVIA COCCINEA. SPIDERLING, SCARLET		-	-	-	-	-	-	-	-	-
45	-AERIAL PART, FRESH, FULL BLOOM, (2)	2-13-265	18.	2.6	4.7	0.4	2.5	0.47*	0.48*	-	-
46			100.0	14.4	26.0	2.2	13.9	2.56*	2.61*	-	-
47	BOMBYX MORI. SILKWORM		-	-	-	-	-	-	-	-	-
48	BONE MEAL, STEAMED (AAFCO)		-	-	-	-	-	-	-	-	-
49	-SEE ANIMAL, BONES, STEAMED DEHY GRND,		-	-	-	-	-	-	-	-	-
50	(6)		-	-	-	-	-	-	-	-	-
51	BOS SPP. CATTLE		-	-	-	-	-	-	-	-	-
52	-WHEY, (4)	4-08-134	95.	7.3	0.2	2.0	11.9	-	-	3420.*	-
53			100.0	7.8	0.2	2.1	12.6	-	-	3612.*	-
54	-WHEY, DEHY, MN 65% LACTOSE, (4)	4-01-182	93.	9.5	1.3	1.2	13.6	-	3.44*	3071.	1899.
55	DRIED WHEY (AAFCO)		100.0	10.3	1.4	1.3	14.7	-	3.71*	3310.	2047.
56	WHEY, DRIED		-	-	-	-	-	-	-	-	-
57	-BUTTERMILK, DEHY, FEED GR MX 8%	5-01-160	92.	9.3	4.7	5.0	31.6	3.28*	3.46*	2282.*	2767.
58	MOISTURE MX 13% ASH MN 5% FAT, (5)		100.0	10.1	5.1	5.5	34.3	3.56*	3.76*	2478.*	3005.
59	DRIED BUTTERMILK, FEED GRADE (AAFCO)		-	-	-	-	-	-	-	-	-
60	BUTTERMILK, DRIED		-	-	-	-	-	-	-	-	-
61	-CASEIN, MILK ACID PRECIPITATED DEHY,	5-01-162	90.	2.9	0.2	0.7	81.9	-	3.81*	-	4132.
62	MN 80% PROTEIN, (5)		100.0	3.2	0.2	0.8	90.7	-	4.22*	-	4578.
63	CASEIN (AAFCO)		-	-	-	-	-	-	-	-	-
64	CASEIN, DRIED		-	-	-	-	-	-	-	-	-
65	-MILK, DEHY, FEED GR MX 8% MOISTURE MN	5-01-167	96.	5.6	0.2	26.8	24.2	-	5.21*	-	-
66	26% FAT, (5)		100.0	5.8	0.2	27.8	25.1	-	5.41*	-	-
67	DRIED WHOLE MILK, FEED GRADE (AAFCO)		-	-	-	-	-	-	-	-	-
68	MILK, WHOLE, DRIED		-	-	-	-	-	-	-	-	-
69	-MILK, FRESH, (5)	5-01-168	13.	0.7	-	3.6	3.5	0.71*	0.71*	690.*	-
70	MILK, CATTLE, FRESH		100.0	5.8	-	28.5	27.8	5.66*	5.61*	5476.*	-
71	-MILK, SKIMMED CENTRIFUGAL, (5)	5-01-170	9.	0.7		0.1	3.3	0.38*	0.38*	408.*	-
72	SKIMMILK, CENTRIFUGAL		100.0	7.2		1.0	34.5	3.98*	4.04*	4330.*	-
73	-MILK, SKIMMED DEHY, MX 8% MOISTURE, (5)	5-01-175	94.	7.4	8.5	2.9	31.6	3.22*	3.56*	3818.*	2541.
74	DRIED SKIMMED MILK, FEED GRADE (AAFCO)		100.0	7.9	9.1	3.0	33.6	3.42*	3.78*	4058.*	2701.
75	MILK, SKIMMED, DRIED		-	-	-	-	-	-	-	-	-
76	SKIMMILK, DRIED		-	-	-	-	-	-	-	-	-
77	-WHEY ALBUMIN, HEAT AND ACID	5-01-177	92.	29.1	0.8	1.0	48.4	-	2.58*	-	-
78	PRECIPITATED DEHY, MN 75% PROTEIN, (5)		100.0	31.6	0.9	1.1	52.5	-	2.80*	-	-
79	DRIED MILK ALBUMIN (AAFCO)		-	-	-	-	-	-	-	-	-
80	MILK, ALBUMIN, DRIED		-	-	-	-	-	-	-	-	-
81	LACTALBUMIN, DRIED		-	-	-	-	-	-	-	-	-
82	-CHEESE, (5)	5-08-001	21.	1.0	-	0.3	17.0	-	-	-	-
83	COTTAGE CHEESE		100.0	4.8	-	1.4	81.0	-	-	-	-
84	BOS TAURUS. CATTLE		-	-	-	-	-	-	-	-	-
85	-BLOOD, DEHY GRND, (5)	5-10-109	92.	4.6	0.6	0.5	87.6	-	-	-	-
86			100.0	5.1	0.7	0.6	95.6	-	-	-	-
87	-BONES, DEHY GRND, (6)	6-10-104	96.	75.9	1.6	9.4	20.3	-	-	-	-
88			100.0	78.9	1.7	9.8	21.1	-	-	-	-
89	BOUTELOUA FILIFORMIS. GRAMA, SLENDER		-	-	-	-	-	-	-	-	-
90	-AERIAL PART, FRESH, DOUGH STAGE, (2)	2-13-686	25.	5.2	7.4	0.3	1.0	0.89*	0.56*	-	-
91			100.0	20.6	29.6	1.3	4.0	2.37*	2.23*	-	-
92	BRACHIARIA DECUMBENS. SIGNALGRASS, SHEEP		-	-	-	-	-	-	-	-	-
93	-AERIAL PART, FRESH, (2)	2-13-217	30.	1.7	-	-	2.3	-	-	-	-
94			100.0	5.8	-	-	7.5	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	41.1*	42.8*	-	0.27	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
03	44.7*	46.5*	-	0.29	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	46.1*	44.1*	-	0.19	-	-	-	0.09	-	-	-	25.5	-	-	-	-	-	-	-
06	50.2*	48.0*	-	0.21	-	-	-	0.10	-	-	-	27.8	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	10.4*	11.7	-	0.17	-	2.3	9.3	0.04	0.98	-	-	-	-	-	0.5	-	-	-	-
14	61.0*	68.7	-	1.01	-	13.6	54.5	0.22	5.79	-	-	-	-	-	3.0	-	-	-	-
15	-	59.8*	-	0.13	0.389	17.8	4.8	0.06	4.84	-	892.	43.3	4.2	-	2.4	-	-	-	-
16	-	75.5*	-	0.17	0.492	22.4	6.0	0.08	6.11	-	1127.	54.7	5.4	-	3.0	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	65.3	66.3	66.3	0.67	0.101	12.5	32.0	0.09	0.16	0.7	820.	16.9	1.4	-	0.8	0.01	0.64	0.01	0.10
20	72.0	73.1	73.1	0.74	0.112	13.8	35.3	0.10	0.18	0.7	904.	18.7	1.5	-	0.8	0.01	0.70	0.01	0.11
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	67.7	72.3	69.9	0.56	-	-	-	0.08	1.64	-	826.	16.3	1.5	-	0.7	-	-	-	-
23	73.5	78.4	75.8	0.61	-	-	-	0.09	1.78	-	897.	17.7	1.7	-	0.7	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	10.3	11.0	10.5	0.03	-	-	-	0.03	0.30	-	-	-	-	-	-	-	-	-	-
26	77.8	82.8	79.1	0.22	-	-	-	0.22	2.28	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	5.0*	5.3*	-	0.06	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
29	53.5*	56.8*	-	0.60	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	55.4*	53.9*	-	3.30	-	-	-	0.17	-	-	-	45.0	-	-	-	-	-	-	-
39	62.3*	60.5*	-	3.71	-	-	-	0.19	-	-	-	50.5	-	-	-	-	-	-	-
40	48.0*	45.3*	-	3.99	-	-	-	0.35	-	-	-	-	-	-	-	-	-	-	-
41	54.1*	51.0*	-	4.49	-	-	-	0.40	-	-	-	-	-	-	-	-	-	-	-
42	9.1*	10.1*	-	0.44	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
43	56.8*	63.4*	-	2.76	-	-	-	0.47	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	10.6*	10.8*	-	0.30	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
46	58.0*	59.3*	-	1.65	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	77.6*	0.58	-	-	-	0.55	-	-	-	-	-	-	-	0.18	0.98	0.21	0.24
53	-	-	81.9*	0.62	-	-	-	0.59	-	-	-	-	-	-	-	0.19	1.03	0.22	0.25
54	-	78.1*	77.0	0.97	0.107	46.0	6.1	0.76	1.05	-	1368.	10.0	44.1	-	27.1	0.30	0.97	0.18	0.18
55	-	84.2*	83.0	1.05	0.116	49.6	6.6	0.82	1.13	-	1475.	10.8	47.5	-	29.2	0.32	1.05	0.20	0.20
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	74.3*	78.5	51.8	1.32	-	-	3.4	0.93	0.85	-	1706.	8.5	34.3	-	31.3	0.40	2.23	0.72	0.47
58	80.7*	85.2	56.2	1.43	-	-	3.7	1.01	0.92	-	1853.	9.3	37.2	-	34.0	0.43	2.42	0.78	0.51
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	-	86.4	-	0.41	-	4.0	3.6	0.83	-	-	205.	1.3	2.6	-	1.5	0.28	7.00	2.75	0.98
62	-	95.7	-	0.45	-	4.4	4.0	0.93	-	-	227.	1.5	2.9	-	1.7	0.31	7.76	3.05	1.08
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	-	118.1*	-	0.90	-	0.9	0.5	0.72	1.13	-	-	7.9	23.0	-	18.0	-	2.26	0.62	0.41
66	-	122.6*	-	0.94	-	0.9	0.5	0.74	1.18	-	-	8.3	23.8	-	18.7	-	2.35	0.64	0.43
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	16.2	16.0*	15.6	0.12	-		-	0.09	0.14	-	-	1.2	2.8	-	1.5	-	0.26	0.07	0.05
70	128.3	127.3*	124.2	0.93	-	0.3	-	0.75	1.11	-	-	9.8	22.4	-	12.1	-	2.03	0.55	0.39
71	6.5	8.6*	9.3	0.13	-	1.1	0.2	0.10	0.15	-	-	1.1	3.5	-	2.0	-	-	-	-
72	90.3	91.6*	98.2	1.37	-	11.6	2.3	1.05	1.58	-	-	11.6	37.1	-	20.9	-	-	-	-
73	73.0*	80.7	86.6	1.26	0.110	11.6	1.9	1.00	1.60	40.0	1405.	11.2	37.2	-	19.1	0.44	2.41	0.94	0.44
74	77.6*	85.8	92.0	1.34	0.117	12.3	2.1	1.06	1.70	42.6	1493.	11.9	39.6	-	20.3	0.47	2.57	1.00	0.47
75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	58.6*	-	10.86	-	-	-	4.03	-	-	-	2.0	7.3	-	8.8	-	-	-	-
78	-	63.6*	-	11.79	-	-	-	4.37	-	-	-	2.1	7.9	-	9.6	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	0.09	-	-	-	0.18	0.07	-	-	1.0	-	-	2.8	-	-	-	-
83	-	-	-	0.43	-	-	-	0.86	0.33	-	-	4.8	-	-	13.3	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	0.06	-	-	-	1.08	-	-	-	39.3	-	-	-	-	-	-	-
86	-	-	-	0.07	-	-	-	1.18	-	-	-	42.9	-	-	-	-	-	-	-
87	-	-	-	23.64	-	-	-	11.47	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	24.57	-	-	-	11.92	-	-	-	-	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	13.5*	12.7*	-	0.11	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
91	53.9*	50.7*	-	0.45	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	0.04	-	-	21.9	0.05	0.42	14.1	-	-	-	-	-	-	-	-	-
94	-	-	-	0.13	-	-	73.1	0.16	1.39	47.0	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	*AERIAL PART,	2-13-216	-	-	-	-	-	-	-	-	-
02	FRESH, 15 TO 28 DAYS' GROWTH, (2)		100.0	5.6	4.5	-	9.5	-	-	-	-
03	*AERIAL PART,	2-13-213	-	-	-	-	-	-	-	-	-
04	FRESH, 43 TO 56 DAYS' GROWTH, (2)		100.0	4.3	-	-	6.8	-	-	-	-
05	BRACHIARIA RUZIZIENSIS, SIGNALGRASS, RUZIZIENSIS		-	-	-	-	-	-	-	-	-
06	*AERIAL PART, FRESH, 15 TO 28 DAYS' GROWTH,	2-13-211	-	-	-	-	-	-	-	-	-
07	(2)		100.0	6.9	-	-	19.2	-	-	-	-
08	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-11-335	27.	2.8	6.7	0.5	4.1	0.74*	0.73*	-	-
09			100.0	10.6	25.2	1.8	15.5	2.76*	2.74*	-	-
10	*AERIAL PART, FRESH, LATE VEGETATIVE, CUT 1,	2-11-336	23.	2.9	6.9	0.9	3.9	0.58*	0.63*	-	-
11	(2)		100.0	12.5	29.6	3.8	16.9	2.48*	2.73*	-	-
12	*AERIAL PART, FRESH, MIDBLOOM, CUT 2, (2)	2-10-968	29.	2.4	11.2	0.5	1.1	0.58*	0.69*	-	-
13			100.0	8.6	39.4	1.6	3.9	2.02*	2.35*	-	-
14	*AERIAL PART, FRESH, CUT 1, (2)	2-10-966	23.	2.0	8.8	0.4	1.3	0.49*	0.56*	-	-
15			100.0	8.5	38.2	1.8	5.8	2.13*	2.41*	-	-
16	BRACHIARIA SPP, SIGNALGRASS		-	-	-	-	-	-	-	-	-
17	BRAN (CFA)		-	-	-	-	-	-	-	-	-
18	*SEE TRITICUM SPP, BRAN, DRY MILLED,		-	-	-	-	-	-	-	-	-
19	(4)		-	-	-	-	-	-	-	-	-
20	BRASSICA CAMPESTRIS, RAPE, POLISH		-	-	-	-	-	-	-	-	-
21	*SEEDS, SOLV EXTD GRND, (5)	5-07-870	93.	-	12.6	1.3	37.6	-	-	-	-
22			100.0	-	13.6	1.4	40.5	-	-	-	-
23	BRASSICA NAPUS, RAPE, ARGENTINE		-	-	-	-	-	-	-	-	-
24	*SEEDS, MECH EXTD GRND, (5)	5-07-869	93.	5.9	12.8	6.7	40.8	3.04*	3.38*	-	-
25			100.0	6.3	13.7	7.1	43.8	3.27*	3.60*	-	-
26	BRASSICA OLERACEA, CAPITATA, CABBAGE		-	-	-	-	-	-	-	-	-
27	*CAPITATA, AERIAL PART, FRESH, (2)	2-01-046	9.	1.0	1.0	0.3	2.0	0.34*	0.38*	-	-
28			100.0	10.3	10.5	2.7	21.4	3.63*	3.75*	-	-
29	BRASSICA SPP, RAPE		-	-	-	-	-	-	-	-	-
30	*SEEDS, MECH EXTD GRND, (5)	5-03-870	94.	6.6	12.5	6.5	35.1	3.04*	3.32*	2992.*	2043.
31	RAPESEED OIL MEAL, EXPELLER EXTRACTED		100.0	7.0	13.3	6.9	37.4	3.24*	3.54*	3189.*	2177.
32	RAPESEED MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
33	*SEEDS, SOLV EXTD GRND, (5)	5-03-871	91.	7.1	11.6	1.5	37.6	2.70*	2.96*	2714.*	1757.
34	RAPESEED OIL MEAL, SOLVENT EXTRACTED		100.0	7.8	12.7	1.7	41.2	2.95*	3.24*	2971.*	1924.
35	RAPESEED MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
36	BREAD		-	-	-	-	-	-	-	-	-
37	*DEHY, (4)	4-07-944	89.	4.2	0.5	2.4	10.7	-	-	3280.*	3634.
38			100.0	4.7	0.5	2.7	12.1	-	-	3702.*	4101.
39	BREVOURTIA TYRANNUS, FISH, MENHADEN		-	-	-	-	-	-	-	-	-
40	*WHOLE OR	5-02-009	91.	18.9	0.7	9.6	60.5	-	2.57*	3283.	2823.
41	CUTTINGS, COOKED MECH EXTD DEHY GRND,		100.0	20.7	0.8	10.5	66.1	-	2.81*	3590.	3086.
42	(5)		-	-	-	-	-	-	-	-	-
43	FISH MEAL, MENHADEN		-	-	-	-	-	-	-	-	-
44	BREWERS DRIED GRAINS (CFA)		-	-	-	-	-	-	-	-	-
45	*SEE GRAINS, BREWERS GRAINS, DEHY, MX		-	-	-	-	-	-	-	-	-
46	3% DRIED SPENT HOPS, (5)		-	-	-	-	-	-	-	-	-
47	BREWERS DRIED GRAINS (AAFCO)		-	-	-	-	-	-	-	-	-
48	*SEE GRAINS, BREWERS GRAINS, DEHY, MX		-	-	-	-	-	-	-	-	-
49	3% DRIED SPENT HOPS, (5)		-	-	-	-	-	-	-	-	-
50	BREWERS DRIED YEAST (AAFCO)		-	-	-	-	-	-	-	-	-
51	*SEE SACCHAROMYCES CEREVISIAE BREWERS		-	-	-	-	-	-	-	-	-
52	SACCHAROMYCES, DEHY GRND, MN 40%		-	-	-	-	-	-	-	-	-
53	PROTEIN, (7)		-	-	-	-	-	-	-	-	-
54	BREWERS DRIED YEAST (CFA)		-	-	-	-	-	-	-	-	-
55	*SEE SACCHAROMYCES CEREVISIAE BREWERS		-	-	-	-	-	-	-	-	-
56	SACCHAROMYCES, DEHY GRND, (7)		-	-	-	-	-	-	-	-	-
57	BROMUS CATHARTICUS, BROME, RESCUE		-	-	-	-	-	-	-	-	-
58	*AERIAL PART, FRESH, EARLY BLOOM, (2)	2-00-933	27.	3.8	6.8	0.6	3.4	0.71*	0.72*	-	-
59			100.0	14.0	24.9	2.1	12.5	2.62*	2.64*	-	-
60	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-912	25.	2.0	9.0	0.6	2.6	0.60*	0.65*	-	-
61			100.0	8.0	35.6	2.2	10.4	2.38*	2.56*	-	-
62	BROMUS INERMIS, BROME, SMOOTH		-	-	-	-	-	-	-	-	-
63	*AERIAL PART, FRESH, EARLY BLOOM, (2)	2-00-957	23.	3.2	6.5	0.7	4.1	0.55*	0.60*	-	-
64			100.0	14.2	28.8	3.1	18.1	2.43*	2.67*	-	-
65	BROMUS LANATUS, BROME, LANATUS		-	-	-	-	-	-	-	-	-
66	*AERIAL PART, FRESH, (2)	2-11-329	-	-	-	-	-	-	-	-	-
67			100.0	7.2	26.6	3.9	17.7	3.18*	2.92*	-	-
68	BROMUS SPP, BROME		-	-	-	-	-	-	-	-	-
69	*AERIAL PART, FRESH, (2)	2-00-900	34.	7.6	6.9	1.7	5.9	0.64*	0.90*	-	-
70			100.0	22.4	20.3	5.1	17.4	1.88*	2.65*	-	-
71	BULBOSTYLIS CAPILLARIS		-	-	-	-	-	-	-	-	-
72	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-971	25.	3.0	9.3	0.3	2.1	0.65*	0.60*	-	-
73			100.0	11.9	36.8	1.0	8.1	2.56*	2.35*	-	-
74	BUTIA CAPITATA, BUTIAPALM, BRAZILIAN		-	-	-	-	-	-	-	-	-
75	BUTTERMILK, DRIED		-	-	-	-	-	-	-	-	-
76	*SEE BOS SPP, BUTTERMILK, DEHY, FEED		-	-	-	-	-	-	-	-	-
77	GR MX 8% MOISTURE MX 13% ASH MN 5%		-	-	-	-	-	-	-	-	-
78	FAT, (5)		-	-	-	-	-	-	-	-	-
79	CAESALPINIA FERREA		-	-	-	-	-	-	-	-	-
80	*BROWSE, FRESH, FULL BLOOM, (2)	2-13-273	39.	1.7	9.8	2.4	6.0	-	1.17*	-	-
81			100.0	4.3	25.2	6.1	15.3	-	3.00*	-	-
82	CAJANUS CAJAN, PIGEONPEA		-	-	-	-	-	-	-	-	-
83	*HAY, S-C, (1)	1-09-743	90.	7.5	27.2	3.1	14.3	2.28*	2.25*	-	-
84			100.0	8.4	30.4	3.5	16.0	2.54*	2.51*	-	-
85	*AERIAL PART, FRESH, (2)	2-03-715	27.	1.6	10.6	1.5	4.8	-	0.82*	-	-
86			100.0	5.8	38.5	5.6	17.4	-	2.99*	-	-
87	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-03-713	28.	2.3	8.9	1.3	6.4	-	0.84*	-	-
88			100.0	8.1	31.9	4.6	22.9	-	3.03*	-	-
89	*AERIAL PART, FRESH, MATURE, (2)	2-13-914	26.	1.6	9.8	1.0	4.8	0.66*	0.78*	-	-
90			100.0	6.0	37.4	3.9	18.2	2.52*	2.86*	-	-
91	*SEEDS, (5)	5-03-716	88.	4.1	8.4	1.5	20.3	3.40*	3.17*	-	-
92			100.0	4.7	9.5	1.7	23.1	3.87*	3.60*	-	-
93	CALAMAGROSTIS ANTONIANA, REEDGRASS, ANTONIANA		-	-	-	-	-	-	-	-	-
94	*AERIAL PART, FRESH, MATURE, (2)	2-10-927	-	-	-	-	-	-	-	-	-
95			100.0	9.2	32.1	2.0	4.6	2.34*	2.52*	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	0.19	-	-	83.3	0.18	1.61	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	0.14	-	-	69.0	0.19	1.14	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	0.08	-	-	192.0	0.38	2.34	-	-	-	-	-	-	-	-	-	-
08	16.7*	16.6*	-	0.14	0.032	3.1	18.8	0.16	-	7.8	-	-	-	-	-	-	-	-	-
09	62.6*	62.2*	-	0.53	0.120	11.6	70.5	0.61	-	29.4	-	-	-	-	-	-	-	-	-
10	13.1*	14.3*	-	0.12	-	11.3	14.8	0.06	0.45	-	-	-	-	-	-	-	-	-	-
11	56.3*	61.8*	-	0.53	-	48.8	63.6	0.25	1.92	-	-	-	-	-	-	-	-	-	-
12	13.1*	15.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	45.8*	53.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	11.2*	12.7*	-	0.12	-	7.1	11.1	0.04	0.45	-	-	-	-	-	-	-	-	-	-
15	48.4*	54.8*	-	0.52	-	30.8	48.0	0.18	1.93	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	0.66	-	-	-	0.93	-	-	-	-	-	-	-	0.25	1.89	0.75	-
22	-	-	-	0.71	-	-	-	1.00	-	-	-	-	-	-	-	0.26	2.04	0.81	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	69.0*	76.1*	-	0.57	-	-	-	1.07	-	-	6996.	166.9	9.9	-	4.2	0.28	1.56	0.71	0.57
25	74.1*	81.6*	-	0.61	-	-	-	1.15	-	-	7511.	179.2	10.6	-	4.5	0.30	1.68	0.76	0.61
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	7.7*	8.0	-	0.06	-	1.3	2.9	0.03	0.26	-	2502.	3.3	-	-	0.6	-	-	-	-
28	82.3*	85.1	-	0.64	-	14.1	30.5	0.35	2.81	-	26713.	35.0	-	-	6.1	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	68.8*	75.3*	67.9	0.72	-	-	61.1	1.09	-	-	6473.	153.0	8.8	-	3.7	0.31	1.83	0.68	0.45
31	73.4*	80.2*	72.3	0.77	-	-	65.1	1.16	-	-	6899.	163.1	9.4	-	3.9	0.33	1.95	0.73	0.48
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	61.2*	67.2*	61.5	0.61	-	-	-	0.95	-	-	6029.	148.9	8.2	-	3.4	0.30	2.01	0.70	0.47
34	67.0*	73.5*	67.4	0.67	-	-	-	1.04	-	-	6601.	163.0	9.0	-	3.7	0.33	2.20	0.77	0.52
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	74.4*	0.05	-	-	-	0.10	-	-	641.	28.1	10.8	-	2.0	0.12	0.20	0.09	0.08
38	-	-	84.0*	0.06	-	-	-	0.11	-	-	723.	31.7	12.2	-	2.2	0.13	0.22	0.10	0.09
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	58.3	61.6	5.10	0.197	10.8	33.0	2.88	0.77	147.0	3054.	55.1	8.7	-	4.9	0.64	4.83	1.77	0.68
41	-	63.7	67.4	5.58	0.215	11.8	36.1	3.15	0.84	160.8	3340.	60.2	9.6	-	5.3	0.70	5.28	1.94	0.74
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	16.1*	16.3*	-	0.15	-	7.8	-	0.08	-	-	-	-	-	-	-	-	-	-	-
59	59.3*	59.9*	-	0.57	-	28.8	-	0.30	-	-	-	-	-	-	-	-	-	-	-
60	13.7*	14.7*	-	0.07	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
61	53.9*	58.1*	-	0.29	-	-	-	0.21	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	12.5*	13.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	55.1*	60.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	72.2*	66.1*	-	0.48	0.098	8.7	112.0	-	-	70.5	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	14.5*	20.4*	-	0.10	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
70	42.6*	60.1*	-	0.30	-	-	-	0.29	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	14.7*	13.6*	-	0.04	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
73	58.0*	53.4*	-	0.14	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	26.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	68.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	51.6*	50.9*	-	0.55	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
84	57.6*	56.9*	-	0.61	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
85	-	18.6*	-	0.23	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
86	-	67.8*	-	0.84	-	-	-	0.27	-	-	-	-	-	-	-	-	-	-	-
87	-	19.1*	-	0.26	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
88	-	68.7*	-	0.93	-	-	-	0.33	-	-	-	-	-	-	-	-	-	-	-
89	15.0*	17.1*	-	0.26	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
90	57.2*	64.8*	-	0.98	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
91	77.2*	71.9*	-	0.13	-	-	-	0.84	-	-	-	24.0	-	-	-	-	-	-	-
92	87.7*	81.7*	-	0.15	-	-	-	0.94	-	-	-	27.3	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	53.0*	57.1*	-	0.64	0.308	3.3	86.3	0.07	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	CALAMAGROSTIS INTERMEDIA, REEDGRASS, INTERMEDIA		-	-	-	-	-	-	-	-	-
02	-HAY, S-C, (1)	1-11-013	-	-	-	-	-	-	-	-	-
03			100.0	6.9	33.6	1.8	3.7	2.30*	2.24*	-	-
04	-AERIAL PART, FRESH, (2)	2-11-012	36.	1.8	11.6	0.7	1.7	0.85*	0.93*	-	-
05			100.0	5.1	32.4	1.8	4.6	2.38*	2.60*	-	-
06	CALAMAGROSTIS SPP, REEDGRASS		-	-	-	-	-	-	-	-	-
07	-AERIAL PART, FRESH, (2)	2-11-248	-	-	-	-	-	-	-	-	-
08			100.0	4.8	30.5	2.4	5.6	2.66*	2.68*	-	-
09	CALAMAGROSTIS TRICHOPHYLLA, REEDGRASS,		-	-	-	-	-	-	-	-	-
10	TRICHOPHYLLA		-	-	-	-	-	-	-	-	-
11	- AERIAL PART, FRESH, MATURE, (2)	2-10-922	-	-	-	-	-	-	-	-	-
12			100.0	2.5	36.1	2.0	5.2	2.19*	2.57*	-	-
13	CALAMAGROSTIS VICUNARUM, REEDGRASS, VICUNARUM		-	-	-	-	-	-	-	-	-
14	-HAY, S-C, (1)	1-11-011	-	-	-	-	-	-	-	-	-
15			100.0	5.9	31.1	1.9	7.1	2.42*	2.37*	-	-
16	-AERIAL PART, FRESH, (2)	2-10-928	45.	2.5	14.9	1.2	3.0	1.12*	1.18*	-	-
17			100.0	5.5	33.0	2.6	6.7	2.48*	2.61*	-	-
18	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-10-931	-	-	-	-	-	-	-	-	-
19			100.0	4.4	33.9	1.9	8.9	2.44*	2.64*	-	-
20	-AERIAL PART, FRESH, MATURE, (2)	2-10-930	-	-	-	-	-	-	-	-	-
21			100.0	6.1	37.1	1.3	4.4	2.15*	2.43*	-	-
22	CALCIUM CARBONATE		-	-	-	-	-	-	-	-	-
23	-COMMERCIAL MN 38% CALCIUM, (6)	6-01-069	94.	38.1	-	-	-	-	-	-	-
24	CALCIUM CARBONATE (AAFCO)		100.0	40.7	-	-	-	-	-	-	-
25	CALCIUM PHOSPHATE, DIBASIC		-	-	-	-	-	-	-	-	-
26	-DIBASIC PHOSPHATE DIBASIC, COMMERCIAL, (6)	6-01-080	97.	91.3	-	-	-	-	-	-	-
27	DICALCIUM PHOSPHATE (AAFCO)		100.0	93.8	-	-	-	-	-	-	-
28	CALLINECTES SAPIDUS, CANCER SPP, PARALITHODES		-	-	-	-	-	-	-	-	-
29	CAMSCHATICA, CRAB		-	-	-	-	-	-	-	-	-
30	-CANCER SPP, PARALITHODES	5-01-663	92.	40.9	10.5	2.0	31.3	0.32*	1.20*	-	1827.
31	CAMSCHATICA, PROCESS RESIDUE, DEHY		100.0	44.2	11.3	2.2	33.9	0.35*	1.30*	-	1979.
32	GRND, MN 25% PROTEIN SALT DECLARED		-	-	-	-	-	-	-	-	-
33	ABOVE 3% MX 7%, (5)		-	-	-	-	-	-	-	-	-
34	CRAB MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
35	CANAVALIA ENSIFORMIS, JACKBEAN, COMMON		-	-	-	-	-	-	-	-	-
36	-AERIAL PART, FRESH, MILK STAGE, (2)	2-13-916	10.	0.9	3.4	0.1	1.7	0.28*	0.26*	-	-
37			100.0	8.9	33.6	1.1	16.8	2.81*	2.60*	-	-
38	CANAVALIA SPP, JACKBEAN		-	-	-	-	-	-	-	-	-
39	CANE MOLASSES (AAFCO)		-	-	-	-	-	-	-	-	-
40	-SEE SACCHARUM OFFICINARUM, MOLASSES,		-	-	-	-	-	-	-	-	-
41	MN 48% INVERT SUGAR MN 79.5 DEGREES		-	-	-	-	-	-	-	-	-
42	BRIX, (4)		-	-	-	-	-	-	-	-	-
43	CAPSICUM FRUTESCENS, REDPEPPER, BUSH		-	-	-	-	-	-	-	-	-
44	-FRUIT, FRESH, (4)	4-13-366	13.	1.0	3.0	0.2	1.5	0.27*	0.40*	265.*	-
45			100.0	7.6	22.7	1.5	11.4	2.08*	3.03*	2009.*	-
46	-SEEDS, GRND, (8)	8-13-363	93.	3.5	38.0	11.8	13.7	-	-	-	-
47			100.0	3.8	41.0	12.8	14.8	-	-	-	-
48	CARTHAMUS TINCTORIUS, SAFFLOWER		-	-	-	-	-	-	-	-	-
49	-SEEDS, (4)	4-07-958	93.	3.3	19.2	34.8	14.2	-	3.62*	-	808.
50			100.0	3.6	20.6	37.5	15.3	-	3.90*	-	870.
51	-SEEDS, COOKED PREPRESSED	5-13-206	90.	26.5	37.5	1.2	20.0	-	0.59*	-	-
52	SOLV EXTD GRND, (5)		100.0	29.3	41.5	1.3	22.1	-	0.65*	-	-
53	-SEEDS, MECH EXTD GRND, (5)	5-04-109	92.	5.6	34.7	3.1	23.8	2.01*	2.29*	-	-
54	SAFFLOWER SEED, MECHANICAL EXTRACTED		100.0	6.1	37.8	3.3	25.9	2.19*	2.49*	-	-
55	(AAFCO)		-	-	-	-	-	-	-	-	-
56	SAFFLOWER OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
57	SAFFLOWER OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
58	-SEEDS, SOLV EXTD GRND, (5)	5-04-110	92.	4.3	44.7	0.5	23.2	-	-	-	-
59	SAFFLOWER SEED, SOLVENT EXTRACTED (AAFCO)		100.0	4.6	48.4	0.5	25.1	-	-	-	-
60	SAFFLOWER OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
61	CASEIN, DRIED		-	-	-	-	-	-	-	-	-
62	-SEE BOS SPP, CASEIN, MILK ACID		-	-	-	-	-	-	-	-	-
63	PRECIPITATED DEHY, MN 80% PROTEIN, (5)		-	-	-	-	-	-	-	-	-
64	CASEIN (AAFCO)		-	-	-	-	-	-	-	-	-
65	-SEE BOS SPP, CASEIN, MILK ACID		-	-	-	-	-	-	-	-	-
66	PRECIPITATED DEHY, MN 80% PROTEIN, (5)		-	-	-	-	-	-	-	-	-
67	CASSAVA MEAL		-	-	-	-	-	-	-	-	-
68	-SEE MANIHOT SPP, ROOTS, DEHY GRND,		-	-	-	-	-	-	-	-	-
69	(4)		-	-	-	-	-	-	-	-	-
70	CASSIA OCCIDENTALIS, SENNA, COFFEE		-	-	-	-	-	-	-	-	-
71	-AERIAL PART, FRESH, LATE BLOOM, (2)	2-13-918	34.	2.8	9.0	0.6	7.0	0.95*	0.94*	-	-
72			100.0	8.5	26.8	1.7	21.0	2.84*	2.80*	-	-
73	CASSIA SPP, SENNA		-	-	-	-	-	-	-	-	-
74	-BROWSE, FRESH, (2)	2-13-634	-	-	-	-	-	-	-	-	-
75			100.0	4.8	22.4	4.2	18.9	3.89*	3.10*	-	-
76	CASSIA TORA, SENNA, SICKLE		-	-	-	-	-	-	-	-	-
77	-AERIAL PART, FRESH, MATURE, (2)	2-13-266	25.	2.0	7.6	1.0	3.1	0.74*	0.69*	-	-
78			100.0	7.8	30.0	3.8	12.4	2.91*	2.73*	-	-
79	CECROPIA SPP, PUMPWOOD		-	-	-	-	-	-	-	-	-
80	-AERIAL PART, FRESH, (2)	2-10-477	23.	2.3	5.8	0.7	3.7	0.65*	0.63*	-	-
81			100.0	10.1	25.6	3.2	16.4	2.88*	2.80*	-	-
82	-LEAVES, FRESH, (2)	2-10-478	29.	2.2	5.9	0.7	5.3	0.93*	0.86*	-	-
83			100.0	7.6	20.7	2.6	18.6	3.26*	3.01*	-	-
84	CENCHRUS CILIARIS, SANDBUR, CILIARIS		-	-	-	-	-	-	-	-	-
85	-AERIAL PART, FRESH, (2)	2-11-368	27.	2.5	11.1	0.7	2.3	0.54*	0.67*	-	-
86			100.0	9.3	41.2	2.8	8.7	2.02*	2.49*	-	-
87	-AERIAL PART,	2-11-367	24.	2.8	8.1	0.8	2.2	0.56*	0.61*	-	-
88	FRESH, 29 TO 42 DAYS' GROWTH, (2)		100.0	11.6	33.5	3.2	9.1	2.30*	2.53*	-	-
89	-AERIAL PART,	2-11-370	28.	3.2	11.8	0.5	1.2	0.57*	0.64*	-	-
90	FRESH, LATE VEGETATIVE, CUT 1, (2)		100.0	11.7	42.3	1.7	4.2	2.05*	2.28*	-	-
91	CENCHRUS MYOSURUIDES, SANDBUR, BIG		-	-	-	-	-	-	-	-	-
92	-AERIAL PART, FRESH, EARLY BLOOM, (2)	2-10-613	45.	5.7	13.0	0.7	2.4	1.13*	1.14*	-	-
93			100.0	12.6	28.6	1.5	5.3	2.48*	2.51*	-	-
94	CENTROSEMA PLUMIERI, BUTTERFLYPEA, PLUMIERI		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	52.1*	50.8*	-	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	19.3*	21.1*	-	0.16	0.008	2.3	28.6	0.02	-	5.2	-	-	-	-	-	-	-	-	-
05	54.0*	59.0*	-	0.44	0.022	6.4	79.8	0.07	-	14.7	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	60.2*	60.9*	-	0.34	0.061	4.0	187.9	0.09	-	24.4	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	49.7*	58.3*	-	0.18	0.330	1.9	59.0	0.03	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	55.0*	53.8*	-	0.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	25.4*	26.7*	-	0.13	0.062	2.8	116.4	0.05	-	18.2	-	-	-	-	-	-	-	-	-
17	56.2*	59.3*	-	0.30	0.138	6.1	258.1	0.12	-	40.3	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	55.4*	59.8*	-	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	48.7*	55.1*	-	0.21	0.268	3.2	234.0	0.06	-	17.6	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	34.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	36.79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	23.64	-	-	-	18.42	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	24.29	-	-	-	18.92	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-7.4*	27.3*	-	14.56	-	32.7	133.0	1.41	0.75	-	2000.	43.8	6.6	-	6.2	0.30	1.40	0.51	0.31
31	-8.0*	29.5*	-	15.77	-	35.5	144.0	1.53	0.81	-	2166.	47.5	7.1	-	6.7	0.32	1.51	0.55	0.34
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	6.4*	5.9*	-	0.22	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
37	63.7*	59.0*	-	2.20	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	6.2*	9.1*	6.0*	0.03	-	-	-	0.02	-	-	-	18.8	-	-	2.5	-	-	-	-
45	47.1*	68.7*	45.6*	0.23	-	-	-	0.15	-	-	-	142.4	-	-	18.9	-	-	-	-
46	-	-	-	0.08	-	-	-	0.49	-	-	-	20.5	-	-	3.5	-	-	-	-
47	-	-	-	0.08	-	-	-	0.52	-	-	-	22.1	-	-	3.8	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	82.2*	-	0.25	-	-	17.9	0.55	0.72	39.9	2593.	49.4	28.2	-	3.2	0.30	0.60	0.33	0.27
50	-	88.5*	-	0.27	-	-	19.3	0.60	0.77	43.0	2793.	53.2	30.4	-	3.4	0.32	0.64	0.36	0.29
51	-	13.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	14.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	45.6*	51.9	-	0.24	-	9.8	18.0	0.64	0.73	40.3	1159.	49.8	27.9	-	10.3	0.62	0.65	0.37	0.28
54	49.7*	56.6	-	0.26	-	10.7	19.6	0.70	0.79	43.9	1263.	54.3	30.4	-	11.2	0.68	0.71	0.40	0.31
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.77	0.21	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.84	0.22	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	21.6*	21.3*	-	0.45	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
72	64.4*	63.4*	-	1.34	-	-	-	0.42	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	88.2*	70.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	16.7*	15.7*	-	0.59	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
78	65.9*	62.0*	-	2.35	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	14.8*	14.4*	-	0.28	-	4.5	109.6	0.05	-	-	-	-	-	-	-	-	-	-	-
81	65.4*	63.6*	-	1.25	-	20.0	484.6	0.20	-	-	-	-	-	-	-	-	-	-	-
82	21.1*	19.5*	-	0.23	-	37.3	91.7	0.05	-	-	-	-	-	-	-	-	-	-	-
83	73.9*	68.3*	-	0.80	-	130.3	320.5	0.19	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	12.4*	15.2*	-	0.01	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
86	45.8*	56.4*	-	0.04	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
87	12.7*	13.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	52.1*	57.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	12.9*	14.4*	-	0.10	-	2.5	9.5	0.06	0.68	-	-	-	-	-	-	-	-	-	-
90	46.4*	51.8*	-	0.37	-	9.0	34.1	0.20	2.45	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	25.5*	25.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	56.4*	5[illegible].0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Nrme (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free) Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	*AERIAL PART, FRESH, FULL BLOOM, (2)	2-15-428	26.	1.7	6.8	0.7	4.6	0.78*	0.75*	-	-
02			100.0	6.6	26.1	2.5	17.5	3.00*	2.88*	-	-
03	CENTROSEMA PUBESCENS, BUTTERFLYPEA, PUBESCENS		-	-	-	-	-	-	-	-	-
04	*AERIAL PART, FRESH, (2)	2-11-459	24.	2.0	7.5	0.9	5.1	0.66*	0.70*	-	-
05			100.0	8.3	31.0	3.9	21.1	2.71*	2.90*	-	-
06	*AERIAL PART, FRESH, FULL BLOOM, (2)	2-13-267	25.	2.2	7.8	0.9	5.5	0.67*	0.72*	-	-
07			100.0	8.7	31.1	3.7	22.0	2.67*	2.89*	-	-
08	CEREUS JAMACARU, CEREUS, MANDACARU		-	-	-	-	-	-	-	-	-
09	*STALKS WO SPINES,	2-13-271	-	-	-	-	-	-	-	-	-
10	FRESH, LATE VEGETATIVE, (2)		100.0	17.2	30.5	0.9	6.1	2.59*	2.30*	-	-
11	CHAETUCALYX MAGNIFLORA		-	-	-	-	-	-	-	-	-
12	*AERIAL PART, FRESH, FULL BLOOM, (2)	2-13-927	27.	1.7	8.8	0.6	5.6	0.76*	0.75*	-	-
13			100.0	6.4	32.5	2.3	20.6	2.82*	2.79*	-	-
14	CHAETOTHYLAX UMBROSUS		-	-	-	-	-	-	-	-	-
15	*AERIAL PART, FRESH, (2)	2-11-763	61.	9.2	20.3	0.6	5.2	1.60*	1.43*	-	-
16			100.0	15.1	33.1	1.0	8.5	2.61*	2.34*	-	-
17	CHENOPODIUM QUINOA, GOOSEFOOT, QUINOA		-	-	-	-	-	-	-	-	-
18	*SEEDS, (4)	4-10-120	90.	3.2	3.4	4.6	12.8	3.18*	3.31*	3331.*	-
19			100.0	3.6	3.8	5.1	14.3	3.55*	3.70*	3720.*	-
20	CHLORIS CILIATA, CHLORIS, FRINGED		-	-	-	-	-	-	-	-	-
21	*AERIAL PART, FRESH, EARLY BLOOM, (2)	2-10-615	38.	4.3	10.6	0.6	3.0	0.96*	0.97*	-	-
22			100.0	11.4	28.2	1.6	7.9	2.56*	2.58*	-	-
23	CHLORIS GAYANA, RHODESGRASS		-	-	-	-	-	-	-	-	-
24	*HAY, S-C, (1)	1-03-913	91.	11.3	33.6	1.6	11.5	1.95*	2.00	-	-
25			100.0	12.5	37.0	1.8	12.7	2.15*	2.20	-	-
26	*AERIAL PART, FRESH, (2)	2-03-916	39.	3.9	12.9	0.8	4.1	0.95*	0.99*	-	-
27			100.0	10.0	33.1	2.1	10.6	2.45*	2.55*	-	-
28	*AERIAL PART, FRESH, EARLY BLOOM, CUT 2, (2)	2-10-470	22.	2.0	8.6	0.5	2.0	0.49*	0.55*	-	-
29			100.0	9.0	39.0	2.1	9.0	2.22*	2.48*	-	-
30	*AERIAL PART, FRESH, MIDBLOOM, CUT 1, (2)	2-10-471	25.	2.2	10.4	0.4	1.4	0.52*	0.60*	-	-
31			100.0	8.9	40.9	1.7	5.5	2.06*	2.37*	-	-
32	*AERIAL PART, FRESH, MATURE, CUT 1, (2)	2-09-911	-	-	-	-	-	-	-	-	-
33			100.0	9.8	28.0	2.0	7.0	2.61*	2.64*	-	-
34	*AERIAL PART, FRESH, CUT 1, (2)	2-10-468	18.	1.6	7.2	0.3	0.9	0.38*	0.43*	-	-
35			100.0	8.7	39.8	1.7	5.2	2.07*	2.38*	-	-
36	CICER ARIETINUM, CHICKPEA, GRAM		-	-	-	-	-	-	-	-	-
37	*SEEDS, (5)	5-01-218	92.	4.1	6.0	4.4	20.2	3.65*	3.60*	-	-
38	GRAM		100.0	4.5	6.6	4.8	22.0	3.98*	3.93*	-	-
39	GARBANZOS		-	-	-	-	-	-	-	-	-
40	CITRUS LIMON, CITRUS, LEMON		-	-	-	-	-	-	-	-	-
41	*FRUIT WO PEELINGS WO SEEDS, FRESH, (4)	4-15-416	11.	0.4	0.6	0.3	0.6	0.36*	0.42*	428.*	-
42			100.0	3.3	4.9	3.0	5.5	3.16*	3.71*	3735.*	-
43	CITRUS MOLASSES (AAFCO)		-	-	-	-	-	-	-	-	-
44	*SEE CITRUS SPP, SYRUP, MN 45% INVERT		-	-	-	-	-	-	-	-	-
45	SUGAR MN 71 DEGREES BRIX, (4)		-	-	-	-	-	-	-	-	-
46	CITRUS PARADISI, CITRUS, GRAPEFRUIT		-	-	-	-	-	-	-	-	-
47	*FRUIT WO PEELINGS WO SEEDS, FRESH, (4)	4-15-414	12.	0.4	0.3	0.2	0.6	-	0.45*	459.*	-
48			100.0	2.9	2.3	1.7	4.9	-	3.81*	3848.*	-
49	CITRUS PULP, DRIED		-	-	-	-	-	-	-	-	-
50	*SEE CITRUS SPP, PULP WO FINES,		-	-	-	-	-	-	-	-	-
51	SHREDDED DEHY, (4)		-	-	-	-	-	-	-	-	-
52	CITRUS RETICULATA, CITRUS, TANGERINE		-	-	-	-	-	-	-	-	-
53	*FRUIT, FRESH, (4)	4-01-256	20.	0.8	2.2	0.8	1.1	0.57*	0.68*	681.*	-
54			100.0	3.8	11.4	4.1	5.7	2.93*	3.47*	3486.*	-
55	CITRUS SINENSIS, CITRUS, ORANGE		-	-	-	-	-	-	-	-	-
56	*PULP, SHREDDED DEHY, (4)	4-11-750	-	-	-	-	-	-	-	-	-
57			100.0	5.3	13.3	3.3	8.7	2.76*	3.34*	3248.*	-
58	*PULP, SHREDDED WET, (4)	4-01-253	36.	6.4	6.8	0.5	1.9	0.25*	0.98*	692.*	-
59	ORANGE PULP, WET		100.0	17.9	19.0	1.4	5.3	0.69*	2.74*	1939.*	-
60	*PULP WO FINES, SHREDDED DEHY, (4)	4-01-254	88.	6.0	10.3	4.6	6.9	2.29*	3.35*	2838.*	-
61	ORANGE PULP, DRIED		100.0	6.9	11.8	5.2	7.9	2.62*	3.82*	3239.*	-
62	CITRUS SPP, CITRUS		-	-	-	-	-	-	-	-	-
63	*PULP, DEHY, (4)	4-08-652	89.	8.4	9.4	2.8	7.3	2.01*	2.92*	2863.*	-
64			100.0	9.4	10.5	3.1	8.2	2.25*	3.27*	3200.*	-
65	*PULP WO FINES, SHREDDED DEHY, (4)	4-01-237	90.	6.2	11.4	3.5	6.4	2.27*	3.30*	3294.*	1315.
66	DRIED CITRUS PULP (AAFCO)		100.0	6.8	12.7	3.9	7.1	2.52*	3.67*	3658.*	1460.
67	CITRUS PULP, DRIED		-	-	-	-	-	-	-	-	-
68	*SYRUP, MN 45% INVERT SUGAR MN 71	4-01-241	67.	5.3	-	0.2	5.1	-	2.24*	-	-
69	DEGREES BRIX, (4)		100.0	8.0	-	0.3	7.7	-	3.36*	-	-
70	CITRUS MOLASSES (AAFCO)		-	-	-	-	-	-	-	-	-
71	CLUPEA HARENGUS, HARENGUS, CLUPEA HARENGUS,		-	-	-	-	-	-	-	-	-
72	PALLASI, FISH, HERRING		-	-	-	-	-	-	-	-	-
73	*HARENGUS, CLUPEA HARENGUS,	5-02-000	93.	11.0	0.7	9.0	72.2	-	3.44*	3184.*	3191.
74	PALLASI HERRING, WHOLE OR CUTTINGS,		100.0	11.9	0.7	9.7	77.8	-	3.70*	3429.*	3436.
75	COOKED MECH EXTD DEHY GRND, (5)		-	-	-	-	-	-	-	-	-
76	FISH MEAL, HERRING		-	-	-	-	-	-	-	-	-
77	CLUPEA SPP, SARDINOPS SPP, FISH, SARDINE		-	-	-	-	-	-	-	-	-
78	*SARDINOPS SPP SARDINE, WHOLE OR	5-02-015	91.	13.1	11.1	11.1	63.2	-	3.04*	2879.*	2839.
79	CUTTINGS, COOKED MECH EXTD DEHY GRND,		100.0	14.4	12.2	12.2	69.5	-	3.33*	3163.*	3119.
80	(5)		-	-	-	-	-	-	-	-	-
81	FISH MEAL, SARDINE		-	-	-	-	-	-	-	-	-
82	CNIDOSCOLUS PHYLLACANTHUS, TREADSOFTLY,		-	-	-	-	-	-	-	-	-
83	PHYLLACANTHUS		-	-	-	-	-	-	-	-	-
84	COCONUT MEAL, MECHANICAL EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
85	*SEE COCOS NUCIFERA, MEATS, MECH EXTD		-	-	-	-	-	-	-	-	-
86	GRND, (5)		-	-	-	-	-	-	-	-	-
87	COCONUT MEAL, SOLVENT EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
88	*SEE COCOS NUCIFERA, MEATS, SOLV EXTD		-	-	-	-	-	-	-	-	-
89	GRND, (5)		-	-	-	-	-	-	-	-	-
90	COCONUT OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
91	*SEE COCOS NUCIFERA, MEATS, MECH EXTD		-	-	-	-	-	-	-	-	-
92	GRND, (5)		-	-	-	-	-	-	-	-	-
93	COCONUT OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
94	*SEE COCOS NUCIFERA, MEATS, MECH EXTD		-	-	-	-	-	-	-	-	-
95	GRND, (5)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	17.7*	17.0*	-	0.38	-	-	-	0.72	-	-	-	-	-	-	-	-	-	-	-
02	68.0*	65.3*	-	1.44	-	-	-	2.75	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	14.9*	15.9*	-	0.31	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
05	61.5*	65.9*	-	1.30	-	-	-	0.31	-	-	-	-	-	-	-	-	-	-	-
06	15.1*	16.4*	-	0.25	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
07	60.6*	65.7*	-	1.02	-	-	-	0.38	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	58.7*	52.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	17.2*	17.1*	-	0.46	-	-	-	0.36	-	-	-	-	-	-	-	-	-	-	-
13	63.9*	63.4*	-	1.72	-	-	-	1.33	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	36.3*	32.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	59.2*	53.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	72.1*	75.0*	75.6*	0.10	-	8.2	-	0.36	-	-	-	9.7	-	-	1.8	-	-	-	-
19	80.6*	83.8*	84.4*	0.11	-	9.1	-	0.40	-	-	-	10.9	-	-	2.0	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	21.8*	22.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	58.1*	58.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	44.2*	45.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	48.7*	50.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	21.6*	22.5*	-	0.10	-	-	-	0.07	0.34	-	-	-	-	-	-	-	-	-	-
27	55.5*	57.9*	-	0.26	-	-	-	0.18	0.87	-	-	-	-	-	-	-	-	-	-
28	11.1*	12.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	50.3*	56.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	11.8*	13.6*	-	0.14	-	4.4	5.1	0.03	0.34	-	-	-	-	-	-	-	-	-	-
31	46.7*	53.7*	-	0.56	-	17.5	20.3	0.14	1.34	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	59.3*	59.9*	-	0.43	-	-	-	0.19	0.94	-	-	-	-	-	-	-	-	-	-
34	8.5*	9.8*	-	0.09	-	16.7	5.6	0.04	0.35	-	-	-	-	-	-	-	-	-	-
35	46.9*	53.9*	-	0.50	-	92.1	31.1	0.21	1.92	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	82.8*	81.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	1.21	0.16	0.13
38	90.3*	89.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	1.32	0.17	0.14
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	8.2*	9.6*	9.7*	0.03	-	-	-	0.03	-	-	-	9.8	-	-	0.5	-	-	-	-
42	71.7*	84.2*	84.7*	0.24	-	-	-	0.22	-	-	-	85.8	-	-	4.2	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	10.3*	10.4*	0.01	-	-	-	0.02	-	-	-	6.1	-	-	0.6	-	-	-	-
48	-	86.3*	87.3*	0.12	-	-	-	0.17	-	-	-	51.5	-	-	4.8	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	13.0*	15.4*	15.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	66.4*	78.7*	79.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	62.5*	75.9*	73.7*	1.19	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
58	5.6*	22.2*	15.7*	2.00	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-
59	15.8*	62.1*	44.0*	5.60	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
60	52.0*	76.0	64.4*	2.22	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
61	59.3*	86.7	73.5*	2.53	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	45.7*	66.3*	64.9*	2.17	-	22.4	8.9	0.10	0.54	-	-	-	-	-	-	-	-	-	-
64	51.0*	74.2*	72.6*	2.42	-	25.0	9.9	0.12	0.61	-	-	-	-	-	-	-	-	-	-
65	51.5*	74.9*	74.7	1.91	-	5.7	6.9	0.11	0.62	14.2	572.	21.8	13.2	-	2.3	0.11	0.19	0.08	0.06
66	57.2*	83.2*	83.0	2.12	-	6.3	7.6	0.12	0.69	15.8	635.	24.2	14.6	-	2.6	0.12	0.21	0.08	0.06
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	-	50.9*	-	1.22	0.107	72.2	25.7	0.12	0.09	91.6	-	26.4	12.4	-	6.1	-	-	-	-
69	-	76.1*	-	1.83	0.159	108.0	38.5	0.17	0.14	137.0	-	39.5	18.6	-	9.1	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	78.0	72.2	2.28	0.097	5.9	4.7	1.70	1.09	131.9	5304.	93.3	16.9	-	9.9	0.88	5.93	2.10	0.81
74	-	84.0	77.8	2.46	0.104	6.4	5.1	1.83	1.17	142.1	5712.	100.4	18.2	-	10.6	0.95	6.39	2.26	0.87
75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	-	68.8*	65.3	5.72	0.179	21.7	21.2	3.23	0.44	-	3091.	68.5	10.1	-	5.9	0.94	5.81	1.95	0.67
79	-	75.6*	71.7	6.29	0.196	23.8	23.3	3.55	0.48	-	3396.	75.3	11.1	-	6.5	1.04	6.39	2.15	0.74
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	COCONUT OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
02	-SEE COCOS NUCIFERA, MEATS, SOLV EXTD		-	-	-	-	-	-	-	-	-
03	GRND, (5)		-	-	-	-	-	-	-	-	-
04	COCOS NUCIFERA, COCONUT		-	-	-	-	-	-	-	-	-
05	-FRUIT, MECH EXTD GRND, (1)	1-10-623	92.	3.9	35.1	5.5	9.0	2.48*	2.17*	-	-
06			100.0	4.3	38.3	6.0	9.8	2.71*	2.37*	-	-
07	-PULP, MECH EXTD GRND, (1)	1-13-691	94.	6.9	26.7	6.7	23.1	-	2.47*	-	-
08			100.0	7.4	28.4	7.2	24.6	-	2.63*	-	-
09	-LEAVES, FRESH, MILK STAGE, (2)	2-13-943	30.	3.0	8.7	1.5	3.7	0.93*	0.81*	-	-
10			100.0	9.9	29.0	4.9	12.5	3.10*	2.71*	-	-
11	-MEATS, MECH EXTD GRND, (5)	5-01-572	94.	6.6	16.7	8.5	23.0	2.96*	3.47*	-	1801.
12	COCONUT MEAL, MECHANICAL EXTRACTED (AAFCO)		100.0	7.0	17.7	9.1	24.4	3.15*	3.69*	-	1913.
13	COPRA MEAL, MECHANICAL EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
14	COCONUT OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
15	COCONUT OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
16	COPRA OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
17	COPRA OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
18	-MEATS, MECH EXTD GRND CAKED, (5)	5-11-860	93.	6.7	10.6	6.1	21.8	3.12*	3.33*	-	-
19			100.0	7.2	11.3	6.6	23.3	3.34*	3.57*	-	-
20	-MEATS, SOLV EXTD GRND, (5)	5-01-573	92.	6.1	9.2	4.4	26.4	3.20*	3.06*	3186.*	1505.
21	COCONUT MEAL, SOLVENT EXTRACTED (AAFCO)		100.0	6.6	9.9	4.8	28.7	3.48*	3.32*	3461.*	1635.
22	COPRA MEAL, SOLVENT EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
23	COCONUT OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
24	COPRA OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
25	COCOS SPP, COCONUT		-	-	-	-	-	-	-	-	-
26	-LEAVES, FRESH, (2)	2-10-413	47.	3.1	12.8	1.9	7.5	1.53*	1.35*	-	-
27			100.0	6.6	27.3	4.1	16.0	3.27*	2.89*	-	-
28	COFFEA ARABICA, COFFEE, ARABIAN		-	-	-	-	-	-	-	-	-
29	-HULLS, COOKED, (1)	1-13-377	83.	7.9	14.6	0.9	7.6	1.92*	2.06*	-	-
30			100.0	9.6	17.7	1.0	9.1	2.33*	2.49*	-	-
31	-PULP, (1)	1-10-617	47.	3.3	9.1	1.3	4.9	1.31*	1.28*	-	-
32			100.0	6.9	19.4	2.9	10.4	2.81*	2.72*	-	-
33	-PULP, DEHY GRND, (1)	1-11-468	86.	6.9	22.2	2.6	10.7	2.31*	2.21*	-	-
34			100.0	8.1	25.8	3.1	12.5	2.68*	2.57*	-	-
35	-PULP, DEHY PELLETED, (1)	1-10-630	87.	8.5	17.6	2.6	8.0	2.34*	2.25*	-	-
36			100.0	9.8	20.3	3.0	9.2	2.70*	2.60*	-	-
37	COFFEA SPP, COFFEE		-	-	-	-	-	-	-	-	-
38	-HULLS, (1)	1-11-479	92.	4.2	42.1	2.1	6.4	-	-	-	-
39			100.0	4.6	45.6	2.2	6.9	-	-	-	-
40	-PULP, DEHY, (1)	1-09-734	84.	7.9	17.0	1.6	10.3	2.20*	2.18*	-	-
41			100.0	9.4	20.3	1.9	12.3	2.63*	2.60*	-	-
42	-PULP W HULLS, (1)	1-09-648	-	-	-	-	-	-	-	-	-
43			100.0	4.7	27.5	2.7	8.3	2.64*	2.54*	-	-
44	COIX EDULIS, JOBSTEARS, EDULIS		-	-	-	-	-	-	-	-	-
45	-AERIAL PART, FRESH, MILK STAGE, (2)	2-17-492	32.	3.8	8.4	0.4	2.9	0.83*	0.82*	-	-
46			100.0	12.1	26.5	1.3	9.1	2.64*	2.61*	-	-
47	COLOCASIA ESCULENTA, DASHEEN		-	-	-	-	-	-	-	-	-
48	-ROOTS, FRESH, (4)	4-10-463	23.	2.2	1.4	0.2	1.9	0.56*	0.80*	797.*	-
49			100.0	9.7	5.9	0.9	8.1	2.44*	3.49*	3474.*	-
50	COMMELINA NUDIFLORA, DAYFLOWER, CREEPING		-	-	-	-	-	-	-	-	-
51	-AERIAL PART, FRESH, FULL BLOOM, (2)	2-11-996	9.	1.8	1.8	0.3	1.5	0.20*	0.23*	-	-
52			100.0	19.8	20.2	3.5	16.7	2.28*	2.63*	-	-
53	CONDALIA SPP, CONDALIA		-	-	-	-	-	-	-	-	-
54	CONDENSED FISH SOLUBLES (AAFCO)		-	-	-	-	-	-	-	-	-
55	-SEE FISH, STICKWATER SOLUBLES,		-	-	-	-	-	-	-	-	-
56	CONDENSED, MN 30% PROTEIN, (5)		-	-	-	-	-	-	-	-	-
57	COPERNICIA CERIFERA, CARNAUBAPALM		-	-	-	-	-	-	-	-	-
58	COPRA MEAL, MECHANICAL EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
59	-SEE COCOS NUCIFERA, MEATS, MECH EXTD		-	-	-	-	-	-	-	-	-
60	GRND, (5)		-	-	-	-	-	-	-	-	-
61	COPRA MEAL, SOLVENT EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
62	-SEE COCOS NUCIFERA, MEATS, SOLV EXTD		-	-	-	-	-	-	-	-	-
63	GRND, (5)		-	-	-	-	-	-	-	-	-
64	COPRA OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
65	-SEE COCOS NUCIFERA, MEATS, MECH EXTD		-	-	-	-	-	-	-	-	-
66	GRND, (5)		-	-	-	-	-	-	-	-	-
67	COPRA OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
68	-SEE COCOS NUCIFERA, MEATS, MECH EXTD		-	-	-	-	-	-	-	-	-
69	GRND, (5)		-	-	-	-	-	-	-	-	-
70	COPRA OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
71	-SEE COCOS NUCIFERA, MEATS, SOLV EXTD		-	-	-	-	-	-	-	-	-
72	GRND, (5)		-	-	-	-	-	-	-	-	-
73	CORDIA BOISSIERI, ANACAHUITA,		-	-	-	-	-	-	-	-	-
74	-BROWSE, FRESH, (2)	2-11-436	34.	3.8	4.8	2.0	5.2	-	1.06*	-	-
75			100.0	11.1	14.2	6.0	15.2	-	3.10*	-	-
76	CORDIA CURASSAVICA		-	-	-	-	-	-	-	-	-
77	CORN AND COB MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
78	-SEE ZEA MAYS, EARS, GRND, (4)		-	-	-	-	-	-	-	-	-
79	CORN DISTILLERS DRIED GRAINS WITH SOLUBLES		-	-	-	-	-	-	-	-	-
80	(AAFCO)		-	-	-	-	-	-	-	-	-
81	-SEE ZEA MAYS, DISTILLERS GRAINS W		-	-	-	-	-	-	-	-	-
82	SOLUBLES, DEHY, MN 75% ORIGINAL		-	-	-	-	-	-	-	-	-
83	SOLIDS, (5)		-	-	-	-	-	-	-	-	-
84	CORN DISTILLERS DRIED SOLUBLES (AAFCO)		-	-	-	-	-	-	-	-	-
85	-SEE ZEA MAYS, DISTILLERS SOLUBLES,		-	-	-	-	-	-	-	-	-
86	DEHY, (5)		-	-	-	-	-	-	-	-	-
87	CORN FODDER, FRESH		-	-	-	-	-	-	-	-	-
88	-SEE ZEA MAYS, AERIAL PART, FRESH, (2)		-	-	-	-	-	-	-	-	-
89	CORN FODDER SILAGE, DOUGH STAGE		-	-	-	-	-	-	-	-	-
90	-SEE ZEA MAYS, AERIAL PART, ENSILED,		-	-	-	-	-	-	-	-	-
91	DOUGH STAGE, (3)		-	-	-	-	-	-	-	-	-
92	CORN FODDER SILAGE, MILK STAGE		-	-	-	-	-	-	-	-	-
93	-SEE ZEA MAYS, AERIAL PART, ENSILED,		-	-	-	-	-	-	-	-	-
94	MILK STAGE, (3)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	56.3*	49.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	61.4*	53.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	56.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	59.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.86	0.39	0.21
09	21.1*	18.5*	-	0.09	-	-	-	0.04	-	-	-	-	-	-	-	-	0.92	0.41	0.22
10	70.3*	61.5*	-	0.30	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
11	67.2*	78.7*	-	0.21	0.130	14.3	66.4	0.63	1.55	-	1163.	29.3	6.0	-	3.5	-	0.71	0.34	0.20
12	71.4*	83.6*	-	0.23	0.138	15.2	70.6	0.67	1.65	-	1236.	31.2	6.4	-	3.7	-	0.76	0.36	0.22
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	70.7*	75.6*	-	0.80	-	145.5	65.3	0.63	3.67	-	-	-	-	-	-	-	-	-	-
19	75.8*	81.0*	-	0.85	-	156.0	70.0	0.68	3.93	-	-	-	-	-	-	-	-	-	-
20	72.6*	69.3*	72.3	0.15	-	-	55.0	0.45	1.61	-	1180.	28.6	6.0	-	3.6	0.25	0.66	0.33	0.20
21	78.9*	75.3*	78.5	0.16	-	-	59.8	0.49	1.75	-	1282.	31.1	6.6	-	4.0	0.27	0.72	0.36	0.22
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	34.8*	30.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	74.3*	65.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	43.6*	46.7*	-	0.34	-	-	-	0.80	-	-	-	22.5	-	-	3.5	-	-	-	-
30	52.8*	56.5*	-	0.41	-	-	-	0.97	-	-	-	27.3	-	-	4.2	-	-	-	-
31	29.8*	28.9*	-	0.63	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
32	63.6*	61.7*	-	1.34	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-
33	52.3*	50.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	60.8*	58.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	53.1*	51.0*	-	0.54	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-
36	61.3*	58.9*	-	0.62	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	49.8*	49.3*	-	0.45	-	-	-	0.11	3.53	-	-	-	-	-	-	-	-	-	-
41	59.5*	59.0*	-	0.53	-	-	-	0.13	4.22	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	60.0*	57.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	18.9*	18.7*	-	0.24	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
46	59.9*	59.2*	-	0.76	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	12.7*	18.1*	18.1*	0.05	-	8.0	14.9	0.21	-	-	-	-	-	-	-	-	-	-	-
49	55.4*	79.1*	78.8*	0.20	-	35.0	65.0	0.90	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	4.6*	5.3*	-	0.12	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
52	51.7*	59.7*	-	1.36	-	-	-	0.42	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	24.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	-	70.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	CORN FODDER SILAGE		-	-	-	-	-	-	-	-	-
02	-SEE ZEA MAYS, AERIAL PART, ENSILED,		-	-	-	-	-	-	-	-	-
03	(3)		-	-	-	-	-	-	-	-	-
04	CORN FODDER, SUN-CURED		-	-	-	-	-	-	-	-	-
05	-SEE ZEA MAYS, AERIAL PART, S-C, (1)		-	-	-	-	-	-	-	-	-
06	ORN GLUTEN FEED (CFA)		-	-	-	-	-	-	-	-	-
07	-SEE ZEA MAYS, GLUTEN W BRAN, WET		-	-	-	-	-	-	-	-	-
08	MILLED DEHY, (5)		-	-	-	-	-	-	-	-	-
09	CORN GLUTEN FEED (AAFCO)		-	-	-	-	-	-	-	-	-
10	-SEE ZEA MAYS, GLUTEN W BRAN, WET		-	-	-	-	-	-	-	-	-
11	MILLED DEHY, (5)		-	-	-	-	-	-	-	-	-
12	CORN GLUTEN MEAL (CFA)		-	-	-	-	-	-	-	-	-
13	-SEE ZEA MAYS, GLUTEN, WET MILLED		-	-	-	-	-	-	-	-	-
14	DEHY, (5)		-	-	-	-	-	-	-	-	-
15	CORN GLUTEN MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
16	-SEE ZEA MAYS, GLUTEN, WET MILLED		-	-	-	-	-	-	-	-	-
17	DEHY, (5)		-	-	-	-	-	-	-	-	-
18	COTTAGE CHEESE		-	-	-	-	-	-	-	-	-
19	-SEE BOS SPP COTTAGE, CHEESE, (5)		-	-	-	-	-	-	-	-	-
20	COTTONSEED MEAL, PRE-PRESS SOLVENT EXTRACTED,		-	-	-	-	-	-	-	-	-
21	41PROTEIN		-	-	-	-	-	-	-	-	-
22	-SEE GOSSYPIUM SPP, SEEDS W SOME		-	-	-	-	-	-	-	-	-
23	HULLS, PREPRESSED SOLV EXTD GRND, 41%		-	-	-	-	-	-	-	-	-
24	PROTEIN, (5)		-	-	-	-	-	-	-	-	-
25	COTTONSEED MEAL, 41% PROTEIN		-	-	-	-	-	-	-	-	-
26	-SEE GOSSYPIUM SPP, SEEDS W SOME		-	-	-	-	-	-	-	-	-
27	HULLS, MECH EXTD GRND, MN 41% PROTEIN		-	-	-	-	-	-	-	-	-
28	MX 14% FIBER MN 2% FAT, (5)		-	-	-	-	-	-	-	-	-
29	COTTONSEED MEAL, SOLVENT EXTRACTED, 41%		-	-	-	-	-	-	-	-	-
30	PROTEIN		-	-	-	-	-	-	-	-	-
31	-SEE GOSSYPIUM SPP, SEEDS W SOME		-	-	-	-	-	-	-	-	-
32	HULLS, SOLV EXTD GRND, MN 41% PROTEIN		-	-	-	-	-	-	-	-	-
33	MX 14% FIBER MN 0.5% FAT, (5)		-	-	-	-	-	-	-	-	-
34	COTTONSEED, WHOLE, GROUND		-	-	-	-	-	-	-	-	-
35	-SEE GOSSYPIUM SPP, SEEDS, GRND, (5)		-	-	-	-	-	-	-	-	-
36	COUTAREA HEXANDRA		-	-	-	-	-	-	-	-	-
37	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-949	27.	4.1	4.7	1.1	6.1	0.71*	0.78*	-	-
38			100.0	15.4	17.6	4.1	23.0	2.67*	2.93*	-	-
39	CRAB MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
40	-SEE CALLINECTES SAPIDUS, CANCER SPP,		-	-	-	-	-	-	-	-	-
41	PARALITHODES CAMSCHATICA, PROCESS		-	-	-	-	-	-	-	-	-
42	RESIDUE, DEHY GRND, MN 25% PROTEIN		-	-	-	-	-	-	-	-	-
43	SALT DECLARED ABOVE 3% MX 7%, (5)		-	-	-	-	-	-	-	-	-
44	CRASSUSTREA SPP, OSTREA SPP, OYSTERS		-	-	-	-	-	-	-	-	-
45	-OSTREA SPP, SHELLS, FINE	6-03-681	97.	80.1	1.5	0.4	0.6	-	-	-	37.
46	GRND, MN 33% CALCIUM, (6)		100.0	82.4	1.5	0.5	0.7	-	-	-	38.
47	OYSTER SHELL FLOUR (AAFCO)		-	-	-	-	-	-	-	-	-
48	CRESCENTIA ALATA, CALABASHTREE, CROSSLEAF		-	-	-	-	-	-	-	-	-
49	-SEEDS, (5)	5-10-627	92.	3.2	17.3	33.6	26.2	-	4.22*	-	-
50			100.0	3.4	18.8	36.4	28.4	-	4.58*	-	-
51	CROTALARIA ANAGYROIDES		-	-	-	-	-	-	-	-	-
52	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-951	28.	2.2	7.9	0.6	5.8	0.78*	0.77*	-	-
53			100.0	7.9	28.8	2.1	20.9	2.84*	2.80*	-	-
54	CROTALARIA INCANA, CROTALARIA, SHACKSHACK		-	-	-	-	-	-	-	-	-
55	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-954	17.	1.2	5.6	0.3	3.9	0.50*	0.47*	-	-
56			100.0	7.3	33.3	1.7	23.2	2.94*	2.76*	-	-
57	CROTALARIA SPP, CROTALARIA		-	-	-	-	-	-	-	-	-
58	-AERIAL PART, FRESH, (2)	2-01-680	20.	2.5	4.1	0.7	4.1	0.59*	0.58*	-	-
59			100.0	12.3	20.3	3.5	20.6	2.95*	2.91*	-	-
60	-AERIAL PART, FRESH, MILK STAGE, (2)	2-01-679	26.	1.7	7.9	0.5	6.2	-	0.73*	-	-
61			100.0	6.6	30.5	2.1	24.3	-	2.84*	-	-
62	CUCUMIS SATIVUS, CUCUMBER		-	-	-	-	-	-	-	-	-
63	-FRUIT, FRESH, (4)	4-01-701	4.	0.4	0.4	0.2	0.7	0.11*	0.13*	125.*	-
64			100.0	10.0	10.0	5.0	17.5	2.64*	3.13*	3119.*	-
65	CUCURBITA MAXIMA, SQUASH, WINTER		-	-	-	-	-	-	-	-	-
66	-FRUIT, COOKED, (4)	4-13-371	9.	0.7	1.1	0.2	1.7	0.22*	0.30*	264.*	-
67			100.0	7.6	11.9	1.7	18.2	2.40*	3.29*	2869.*	-
68	-SEEDS, COOKED, (5)	5-13-372	91.	4.2	2.0	45.4	31.4	-	-	-	-
69			100.0	4.6	2.2	49.7	34.4	-	-	-	-
70	CYDONIA OBLONGA, QUINCE, COMMON		-	-	-	-	-	-	-	-	-
71	-FRUIT, FRESH, (4)	4-13-375	20.	0.5	1.5	0.2	0.4	-	0.72*	780.*	-
72			100.0	2.6	7.7	1.0	2.1	-	3.71*	4001.*	-
73	CYNODON DACTYLON, BERMUDAGRASS		-	-	-	-	-	-	-	-	-
74	-AERIAL PART, DEHY, (1)	1-10-608	93.	8.9	29.2	2.3	10.9	2.25*	2.21*	-	-
75			100.0	9.5	31.4	2.4	11.7	2.42*	2.37*	-	-
76	-AERIAL PART, DEHY GRND, (1)	1-10-607	87.	9.0	28.0	4.6	11.5	1.90*	2.00*	-	-
77			100.0	10.2	32.0	5.3	13.2	2.18*	2.29*	-	-
78	-LEAVES, DEHY, (1)	1-15-460	95.	11.4	27.4	2.0	10.4	2.24*	2.20*	-	-
79			100.0	12.1	28.9	2.1	11.0	2.37*	2.32*	-	-
80	-AERIAL PART, FRESH, (2)	2-00-712	33.	3.0	10.5	0.8	2.8	0.82*	0.88*	-	-
81			100.0	8.9	31.8	2.3	8.6	2.47*	2.65*	-	-
82	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-10-131	31.	3.2	8.4	0.7	3.9	0.83*	0.83*	-	-
83			100.0	10.3	27.5	2.4	12.6	2.70*	2.70*	-	-
84	-AERIAL PART, FRESH, EARLY BLOOM, (2)	2-00-707	31.	3.8	8.4	0.6	5.4	0.82*	0.82*	-	-
85			100.0	12.3	27.3	1.9	17.5	2.66*	2.66*	-	-
86	-AERIAL PART, FRESH, CUT 2, (2)	2-10-389	35.	4.3	9.8	0.7	2.1	0.86*	0.88*	-	-
87			100.0	12.4	28.3	2.0	6.2	2.49*	2.55*	-	-
88	-AERIAL PART, FRESH	2-10-391	17.	1.9	5.4	0.3	1.1	0.39*	0.41*	-	-
89	FERTILIZED, LATE BLOOM, CUT 1, (2)		100.0	11.6	32.6	1.7	6.5	2.36*	2.46*	-	-
90	-AERIAL PART, FRESH FERTILIZED, CUT 2, (2)	2-10-390	29.	3.3	8.9	0.6	1.8	0.70*	0.73*	-	-
91			100.0	11.4	30.5	2.0	6.3	2.41*	2.52*	-	-
92	CYNODON DACTYLON, BERMUDAGRASS, COASTAL		-	-	-	-	-	-	-	-	-
93	-AERIAL PART, FRESH,	2-10-584	30.	3.0	10.6	0.5	3.3	0.76*	0.76*	-	-
94	1 TO 14 DAYS' GROWTH, (2)		100.0	10.0	35.1	1.5	11.1	2.51*	2.50*	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	16.0*	17.6*	-	0.67	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
38	60.5*	66.5*	-	2.51	-	-	-	0.31	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	37.48	-	-	130.5	12.51	0.10	-	-	-	-	-	-	-	-	-	-
46	-	-	-	38.57	-	-	134.3	12.88	0.10	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	95.7*	-	0.11	-	-	-	0.78	-	-	-	8.9	-	-	-	-	-	-	-
50	-	103.8*	-	0.11	-	-	-	0.85	-	-	-	9.7	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	17.8*	17.5*	-	0.35	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
53	64.4*	63.5*	-	1.28	-	-	-	0.35	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	11.3*	10.6*	-	0.29	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
56	66.6*	62.6*	-	1.74	-	-	-	0.34	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	13.4*	13.2*	-	0.49	-	-	-	0.72	-	-	-	-	-	-	-	-	-	-	-
59	66.8*	66.0*	-	2.46	-	-	-	3.60	-	-	-	-	-	-	-	-	-	-	-
60	-	16.6*	-	0.21	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
61	-	64.5*	-	0.83	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	2.4*	2.8*	2.8*	0.02	-	-	-	0.02	-	-	-	3.0	-	-	0.5	-	-	-	-
64	59.9*	71.0*	70.7*	0.50	-	-	-	0.50	-	-	-	75.0	-	-	12.5	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	5.0*	6.9*	6.0*	0.03	-	-	-	0.02	-	-	-	22.4	-	-	3.0	-	-	-	-
67	54.4*	74.7*	65.1*	0.33	-	-	-	0.27	-	-	-	243.2	-	-	32.1	-	-	-	-
68	-	-	-	0.04	-	-	-	1.16	-	-	-	20.3	-	-	1.5	-	-	-	-
69	-	-	-	0.04	-	-	-	1.27	-	-	-	22.2	-	-	1.6	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	-	16.4*	17.7*	0.01	-	-	-	0.03	-	-	-	3.8	-	-	0.4	-	-	-	-
72	-	84.1*	90.7*	0.05	-	-	-	0.15	-	-	-	19.5	-	-	2.1	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	51.1*	50.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	54.8*	53.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	43.2*	45.4*	-	0.65	-	-	-	0.20	-	-	-	-	-	-	-	-	-	-	-
77	49.4*	51.9*	-	0.75	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
78	50.8*	49.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	53.7*	52.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	18.6*	19.9*	-	0.01	-	-	-	0.03	0.73	-	-	-	-	-	-	-	-	-	-
81	56.0*	60.0*	-	0.04	-	-	-	0.09	2.20	-	-	-	-	-	-	-	-	-	-
82	18.9*	18.8*	-	0.21	-	20.1	11.9	0.11	0.54	29.9	-	-	-	-	-	-	-	-	-
83	61.3*	61.2*	-	0.67	-	65.3	38.7	0.35	1.76	97.3	-	-	-	-	-	-	-	-	-
84	18.6*	18.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	60.4*	60.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	19.5*	20.0*	-	0.12	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
87	56.5*	57.9*	-	0.35	-	-	-	0.19	-	-	-	-	-	-	-	-	-	-	-
88	8.9*	9.2*	-	0.06	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
89	53.5*	55.7*	-	0.34	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
90	15.9*	16.7*	-	0.11	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
91	54.7*	57.2*	-	0.39	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	17.2*	17.1*	-	0.09	-	3.6	21.5	0.14	0.79	6.7	-	-	-	-	-	-	-	-	-
94	56.9*	56.7*	-	0.31	-	12.0	71.0	0.45	2.60	22.0	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	CYNODON PLECTOSTACHYUM, STARGRASS		-	-	-	-	-	-	-	-	-
02	-AERIAL PART, DEHY, (1)	1-10-605	95.	9.6	32.9	1.7	10.3	2.16*	2.16*	-	-
03			100.0	10.1	34.7	1.8	10.9	2.28*	2.28*	-	-
04	-AERIAL PART, FRESH, (2)	2-09-730	28.	3.0	9.5	0.9	2.8	0.66*	0.72*	-	-
05			100.0	10.6	33.6	3.1	10.1	2.36*	2.56*	-	-
06	-AERIAL PART, FRESH, 15	2-11-113	25.	2.5	8.1	0.6	3.0	0.61*	0.64*	-	-
07	TO 28 DAYS' GROWTH, (2)		100.0	10.2	32.8	2.4	12.0	2.46*	2.59*	-	-
08	-AERIAL PART, FRESH, 43	2-11-137	28.	2.5	9.5	0.6	2.5	0.65*	0.70*	-	-
09	TO 56 DAYS' GROWTH, (2)		100.0	9.0	34.4	2.1	8.9	2.35*	2.53*	-	-
10	CYNODON SPP, DOGTOOTHGRASS		-	-	-	-	-	-	-	-	-
11	-AERIAL PART, DEHY GRND, (1)	1-11-466	92.	11.0	26.7	3.2	9.5	2.22*	2.14*	-	-
12			100.0	11.9	28.9	3.5	10.3	2.40*	2.32*	-	-
13	-AERIAL PART, FRESH, EARLY VEGETATIVE, (2)	2-10-232	27.	2.9	9.2	0.4	3.1	0.69*	0.69*	-	-
14			100.0	10.7	33.8	1.6	11.2	2.52*	2.51*	-	-
15	CYPERUS FLAVESCENS, FLATSEDGE, FLAVESCENS		-	-	-	-	-	-	-	-	-
16	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-924	21.	2.0	6.8	0.5	2.1	0.49*	0.53*	-	-
17			100.0	10.0	33.3	2.4	10.2	2.41*	2.56*	-	-
18	CYPERUS LUZULAS, FLATSEDGE, LUZULAS		-	-	-	-	-	-	-	-	-
19	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-923	19.	3.0	5.6	0.3	1.8	0.46*	0.44*	-	-
20			100.0	16.1	30.5	1.4	9.8	2.51*	2.40*	-	-
21	DACTYLIS GLOMERATA, ORCHARDGRASS		-	-	-	-	-	-	-	-	-
22	-AERIAL PART, DEHY, (1)	1-17-536	94.	9.9	26.2	1.9	20.2	2.54*	2.47*	-	-
23			100.0	10.5	27.8	2.0	21.4	2.69*	2.62*	-	-
24	-HAY, S-C, (1)	1-03-438	94.	12.3	23.4	2.8	18.0	2.53*	2.43*	-	-
25			100.0	13.0	24.8	2.9	19.1	2.67*	2.57*	-	-
26	-HAY, S-C FERTILIZED, (1)	1-15-430	93.	12.7	24.7	2.6	17.1	2.37*	2.30*	-	-
27			100.0	13.7	26.6	2.8	18.5	2.56*	2.49*	-	-
28	-AERIAL PART, FRESH, (2)	2-03-451	27.	2.7	7.4	1.1	2.8	0.84*	0.74*	-	-
29			100.0	9.9	27.2	4.0	10.3	3.07*	2.70*	-	-
30	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-08-476	36.	3.9	9.6	0.8	5.6	0.97*	0.97*	-	-
31			100.0	10.8	26.9	2.2	15.7	2.71*	2.71*	-	-
32	-AERIAL PART, FRESH, LATE	2-10-689	13.	1.2	3.1	0.5	1.8	0.43*	0.37*	-	-
33	VEGETATIVE, CUT 1, (2)		100.0	9.3	24.1	3.9	14.3	3.30*	2.85*	-	-
34	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-03-443	25.	3.2	6.5	0.5	2.3	0.66*	0.66*	-	-
35			100.0	12.6	25.8	2.1	9.1	2.64*	2.64*	-	-
36	-AERIAL PART, FRESH, MIDBLOOM, CUT 1, (2)	2-10-486	29.	2.0	7.9	1.1	2.9	0.95*	0.79*	-	-
37			100.0	7.1	27.4	3.9	10.0	3.31*	2.76*	-	-
38	-AERIAL PART, FRESH, MIDBLOOM, CUT 3, (2)	2-10-488	21.	2.3	6.3	0.9	2.9	0.58*	0.58*	-	-
39			100.0	10.7	29.4	4.0	13.7	2.72*	2.71*	-	-
40	-AERIAL PART, FRESH, CUT 1, (2)	2-03-450	19.	2.9	5.3	0.8	2.7	0.47*	0.51*	-	-
41			100.0	15.2	27.5	4.2	14.1	2.44*	2.64*	-	-
42	-AERIAL PART, FRESH, CUT 2, (2)	2-07-723	30.	2.4	9.2	1.1	2.6	0.87*	0.81*	-	-
43			100.0	7.8	30.4	3.7	8.7	2.88*	2.65*	-	-
44	-AERIAL PART, FRESH	2-10-136	-	-	-	-	-	-	-	-	-
45	FERTILIZED, 15 TO 28 DAYS' GROWTH, (2)		100.0	19.4	20.6	5.9	25.4	-	3.07*	-	-
46	DACTYLIS GLOMERATA, TRIFOLIUM PRATENSE,		-	-	-	-	-	-	-	-	-
47	ORCHARDGRASS-CLOVER, RED		-	-	-	-	-	-	-	-	-
48	-TRIFOLIUM PRATENSE, AERIAL	2-10-199	-	-	-	-	-	-	-	-	-
49	PART, FRESH, 57 TO 70 DAYS' GROWTH,		100.0	21.5	22.6	4.1	18.9	-	2.61*	-	-
50	(2)		-	-	-	-	-	-	-	-	-
51	DACTYLOCTENIUM AEGYPTIUM, CROWFOOTGRASS, DURRAN		-	-	-	-	-	-	-	-	-
52	-AERIAL PART, FRESH, LATE BLOOM, (2)	2-13-275	23.	1.7	6.5	0.4	1.7	0.59*	0.60*	-	-
53			100.0	7.4	28.9	1.7	7.4	2.61*	2.68*	-	-
54	DAUCUS CAROTA, CARROT, WILD		-	-	-	-	-	-	-	-	-
55	-LEAVES, FRESH, (2)	2-15-421	21.	2.1	2.5	0.2	4.2	0.60*	0.66*	-	-
56			100.0	10.2	12.2	1.0	20.5	2.94*	3.23*	-	-
57	-ROOTS, DEHY, (4)	4-11-656	76.	7.6	7.1	3.7	9.0	1.83*	2.42*	2425.*	-
58			100.0	10.1	9.4	4.9	11.9	2.41*	3.19*	3192.*	-
59	-ROOTS NO PEELINGS, COOKED, (4)	4-15-420	12.	0.9	0.7	0.6	1.1	0.33*	0.41*	418.*	-
60			100.0	7.5	5.8	5.0	9.2	2.74*	3.46*	3484.*	-
61	-ROOTS NO PEELINGS, FRESH, (4)	4-13-379	10.	0.6	1.0	0.1	0.8	0.29*	0.36*	357.*	-
62			100.0	5.9	10.3	1.0	7.4	2.85*	3.51*	3518.*	-
63	DAUCUS SPP, CARROT		-	-	-	-	-	-	-	-	-
64	-ROOTS, FRESH, (4)	4-01-143	12.	1.0	1.1	0.2	1.2	0.29*	0.46*	396.*	-
65			100.0	8.4	8.9	1.7	9.7	2.47*	3.88*	3336.*	-
66	DEHYDRATED ALFALFA MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
67	-SEE MEDICAGO SATIVA, AERIAL PART,		-	-	-	-	-	-	-	-	-
68	DEHY GRND, (1)		-	-	-	-	-	-	-	-	-
69	DEHYDRATED CORN PLANT (AAFCO)		-	-	-	-	-	-	-	-	-
70	-SEE ZEA MAYS, AERIAL PART, DEHY, (1)		-	-	-	-	-	-	-	-	-
71	DELONIX REGIA, FLAMBOYANTTREE		-	-	-	-	-	-	-	-	-
72	-SEEDS, (4)	4-13-688	-	-	-	-	-	-	-	-	-
73			100.0	5.2	24.2	1.5	18.8	2.17*	2.99*	1488.*	-
74	DESMANTHUS SPP, BUNDLEFLOWER		-	-	-	-	-	-	-	-	-
75	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-977	25.	1.8	8.6	0.5	4.2	0.66*	0.66*	-	-
76			100.0	7.3	35.1	1.9	17.0	2.69*	2.67*	-	-
77	DESMANTHUS VIRGATUS, BUNDLEFLOWER, RAYADO		-	-	-	-	-	-	-	-	-
78	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-974	37.	2.0	14.0	0.7	5.1	0.92*	0.96*	-	-
79			100.0	5.5	38.2	1.9	13.9	2.51*	2.63*	-	-
80	-AERIAL PART, FRESH, LATE BLOOM, (2)	2-13-975	30.	2.5	9.7	0.9	5.7	0.80*	0.83*	-	-
81			100.0	8.5	32.3	2.9	19.0	2.68*	2.77*	-	-
82	DESMODIUM ADCENDENS, TICKCLOVER, ADCENDENS		-	-	-	-	-	-	-	-	-
83	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-991	25.	2.0	8.7	0.7	3.7	0.63*	0.67*	-	-
84			100.0	8.1	34.8	2.7	14.7	2.52*	2.67*	-	-
85	DESMODIUM BARBATUM, TICKCLOVER, BARBATUM		-	-	-	-	-	-	-	-	-
86	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-13-992	32.	2.0	12.3	0.7	4.3	0.79*	0.84*	-	-
87			100.0	6.4	38.3	2.1	13.3	2.45*	2.61*	-	-
88	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-993	25.	1.1	7.8	1.1	2.9	0.84*	0.69*	-	-
89			100.0	4.5	31.0	4.5	11.7	3.35*	2.77*	-	-
90	DESMODIUM BATOCAULIS, TICKCLOVER, BATOCAULIS		-	-	-	-	-	-	-	-	-
91	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-994	25.	2.6	8.9	0.6	4.0	0.82*	0.68*	-	-
92			100.0	10.5	36.1	2.4	16.1	2.52*	2.62*	-	-
93	DESMODIUM CANUM, TICKCLOVER, CANUM		-	-	-	-	-	-	-	-	-
94	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-996	17.	2.4	5.6	0.5	3.0	-	0.44*	-	-
95			100.0	14.4	33.4	2.7	18.0	-	2.60*	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	49.0*	49.0*	-	0.58	-	-	-	0.21	-	-	-	-	-	-	-	-	-	-	-
03	51.7*	51.7*	-	0.61	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-
04	15.0*	16.4*	-	0.04	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
05	53.4*	58.2*	-	0.15	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
06	13.8*	14.5*	-	0.04	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
07	55.9*	58.8*	-	0.14	-	-	-	0.29	-	-	-	-	-	-	-	-	-	-	-
08	14.8*	15.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	53.4*	57.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	50.3*	48.6*	-	0.58	-	-	-	0.31	-	-	-	-	-	-	-	-	-	-	-
12	54.5*	52.7*	-	0.63	-	-	-	0.34	-	-	-	-	-	-	-	-	-	-	-
13	15.6*	15.5*	-	0.11	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
14	57.1*	57.0*	-	0.40	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	11.2*	11.9*	-	0.13	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
17	54.6*	58.1*	-	0.63	-	-	-	0.33	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	10.5*	10.1*	-	0.08	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
20	56.9*	54.5*	-	0.43	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	57.5*	56.0*	-	0.46	0.146	9.4	121.6	0.61	2.53	31.5	-	-	-	-	-	-	-	-	-
23	61.0*	59.4*	-	0.49	0.155	9.9	129.0	0.65	2.68	33.4	-	-	-	-	-	-	-	-	-
24	57.3*	55.0*	-	0.67	0.113	12.5	178.3	0.33	1.86	36.9	-	-	-	-	-	-	-	-	-
25	60.7*	58.3*	-	0.71	0.120	13.2	188.8	0.35	1.97	39.1	-	-	-	-	-	-	-	-	-
26	53.8*	52.2*	-	0.48	0.111	12.2	66.2	0.36	2.22	35.2	-	-	-	-	-	-	-	-	-
27	58.0*	56.4*	-	0.52	0.120	13.2	71.4	0.39	2.39	38.0	-	-	-	-	-	-	-	-	-
28	19.0*	16.7*	-	0.18	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
29	69.7*	61.2*	-	0.65	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
30	22.1*	22.1*	-	0.11	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
31	61.5*	61.6*	-	0.31	-	-	-	0.38	-	-	-	-	-	-	-	-	-	-	-
32	9.6*	8.3*	-	0.06	-	1.2	13.4	0.04	0.24	-	-	-	-	-	-	-	-	-	-
33	74.8*	64.7*	-	0.44	-	9.6	104.0	0.32	1.89	-	-	-	-	-	-	-	-	-	-
34	15.0*	15.0*	-	0.06	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
35	59.9*	59.9*	-	0.25	-	-	-	0.19	-	-	-	-	-	-	-	-	-	-	-
36	21.5*	17.9*	-	0.12	-	2.0	16.9	0.05	0.53	-	-	-	-	-	-	-	-	-	-
37	75.0*	62.5*	-	0.41	-	6.9	58.8	0.19	1.84	-	-	-	-	-	-	-	-	-	-
38	13.2*	13.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	61.8*	61.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	10.6*	11.5*	-	0.08	-	2.6	11.1	0.05	0.34	-	-	-	-	-	-	-	-	-	-
41	55.4*	60.0*	-	0.43	-	13.5	57.6	0.24	1.75	-	-	-	-	-	-	-	-	-	-
42	19.8*	18.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	65.3*	60.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	69.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	59.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	13.4*	13.7*	-	0.12	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
53	59.3*	60.7*	-	0.52	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	13.7*	15.0*	-	0.03	-	-	-	0.10	-	-	-	14.5	-	-	8.1	-	-	-	-
56	66.6*	73.3*	-	0.15	-	-	-	0.49	-	-	-	70.7	-	-	39.5	-	-	-	-
57	41.5*	54.9*	55.0*	0.56	-	-	-	0.30	-	-	-	-	-	-	-	-	-	-	-
58	54.7*	72.3*	72.4*	0.74	-	-	-	0.40	-	-	-	-	-	-	-	-	-	-	-
59	7.5*	9.4*	9.5*	-	-	-	-	0.04	-	-	-	29.3	-	-	0.4	-	-	-	-
60	62.2*	78.4*	79.0*	-	-	-	-	0.33	-	-	-	244.2	-	-	3.3	-	-	-	-
61	6.5*	8.1*	8.1*	0.03	-	-	-	0.03	-	-	-	9.8	-	-	0.8	-	-	-	-
62	64.5*	79.6*	79.8*	0.30	-	-	-	0.30	-	-	-	96.7	-	-	7.4	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	6.6*	10.4*	9.0*	0.04	-	1.3	3.7	0.04	0.30	-	-	6.0	-	-	0.5	-	-	-	-
65	55.9*	88.0*	75.7*	0.37	-	11.1	31.5	0.32	2.50	-	-	50.8	-	-	4.2	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	49.3*	67.7*	33.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	15.0*	14.9*	-	0.44	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
76	60.9*	60.6*	-	1.80	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	20.8*	21.8*	-	0.31	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
79	56.9*	59.6*	-	0.84	-	-	-	0.30	-	-	-	-	-	-	-	-	-	-	-
80	18.2*	18.8*	-	0.57	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
81	60.7*	62.7*	-	1.92	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	14.3*	15.1*	-	0.23	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
84	57.1*	60.5*	-	0.92	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	17.8*	18.9*	-	0.28	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
87	55.6*	59.2*	-	0.88	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
88	19.0*	15.7*	-	0.36	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
89	76.0*	62.8*	-	1.43	-	-	-	0.29	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	14.1*	14.6*	-	0.34	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
92	57.1*	59.4*	-	1.37	-	-	-	0.36	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	10.0*	-	0.25	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
95	-	59.0*	-	1.48	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free) Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	DESMODIUM DISCOLOR, TICKCLOVER, DISCOLOR		-	-	-	-	-	-	-	-	-
02	-HAY, S-C, (1)	1-11-655	-	-	-	-	-	-	-	-	-
03			100.0	9.8	22.8	4.5	19.1	2.82*	2.76*	-	-
04	DESMODIUM DISTORTUM, TICKCLOVER, DISTORTUM		-	-	-	-	-	-	-	-	-
05	-AERIAL PART, FRESH, LATE BLOOM, (2)	2-13-998	-	-	-	-	-	-	-	-	-
06			100.0	10.2	31.1	2.4	18.8	2.66*	2.70*	-	-
07	DESMODIUM INTORTUM, TICKCLOVER, INTORTUM		-	-	-	-	-	-	-	-	-
08	-AERIAL PART, DEHY, (1)	1-11-653	96.	7.4	19.7	3.1	16.3	2.85*	2.71*	-	-
09			100.0	7.8	20.5	3.2	17.1	2.98*	2.83*	-	-
10	-AERIAL PART, FRESH, (2)	2-11-651	17.	7.2	22.6	5.2	19.0	-	-	-	-
11			100.0	41.9	131.4	30.2	110.5	-	-	-	-
12	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-13-999	12.	1.0	3.5	0.2	3.0	-	0.33*	-	-
13			100.0	8.0	29.5	1.7	25.1	-	2.80*	-	-
14	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-14-000	35.	5.5	11.8	0.6	4.4	0.88*	0.83*	-	-
15			100.0	15.8	34.2	1.6	12.7	2.56*	2.41*	-	-
16	DESMODIUM MOLLICULUM, TICKCLOVER, MOLLICULUM		-	-	-	-	-	-	-	-	-
17	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-15-401	22.	2.9	5.9	0.8	3.8	0.55*	0.59*	-	-
18			100.0	13.2	27.5	3.6	17.4	2.53*	2.73*	-	-
19	DESMODIUM PACHIRRHIZUM, TICKCLOVER, PACHIRRHIZUM		-	-	-	-	-	-	-	-	-
20	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-458	30.	2.8	15.0	0.3	3.2	-	-	-	-
21			100.0	9.4	49.9	0.9	10.5	-	-	-	-
22	DESMODIUM POLYCARPUM, TICKCLOVER, BEGGARWEED		-	-	-	-	-	-	-	-	-
23	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-13-984	21.	2.1	6.7	0.9	4.3	-	0.61*	-	-
24			100.0	10.0	32.0	4.4	20.8	-	2.91*	-	-
25	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-983	41.	3.9	12.7	0.6	8.2	1.14*	1.09*	-	-
26			100.0	9.5	31.4	1.6	20.2	2.82*	2.68*	-	-
27	DESMODIUM SERICOPHYLLA, TICKCLOVER, SERICOPHYLLA		-	-	-	-	-	-	-	-	-
28	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-981	25.	1.9	9.8	0.5	3.6	0.63*	0.65*	-	-
29			100.0	7.4	39.3	1.9	14.2	2.53*	2.59*	-	-
30	DESMODIUM SPP. TICKCLOVER		-	-	-	-	-	-	-	-	-
31	-AERIAL PART, FRESH, (2)	2-10-497	23.	2.2	6.4	0.6	4.4	0.63*	0.64*	-	-
32			100.0	9.6	28.0	2.7	19.3	2.76*	2.78*	-	-
33	-AERIAL PART, FRESH, 29 TO 42	2-13-978	21.	1.5	5.4	0.6	4.0	0.64*	0.61*	-	-
34	DAYS' GROWTH, (2)		100.0	7.2	25.4	2.7	18.9	3.02*	2.90*	-	-
35	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-13-980	38.	1.9	19.2	0.3	3.9	-	-	-	-
36			100.0	5.1	50.9	0.9	10.4	-	-	-	-
37	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-979	28.	2.5	9.4	0.7	4.7	0.73*	0.76*	-	-
38			100.0	9.0	33.3	2.6	16.5	2.59*	2.69*	-	-
39	-LEAVES, FRESH, (2)	2-10-499	-	-	-	-	-	-	-	-	-
40			100.0	8.9	19.7	2.8	25.9	-	3.02*	-	-
41	DESMODIUM UNCINATUM, TICKCLOVER, SILVERLEAF		-	-	-	-	-	-	-	-	-
42	DICALCIUM PHOSPHATE (AAFCO)		-	-	-	-	-	-	-	-	-
43	-SEE CALCIUM PHOSPHATE, DIBASIC		-	-	-	-	-	-	-	-	-
44	PHOSPHATE DIBASIC, COMMERCIAL, (6)		-	-	-	-	-	-	-	-	-
45	DICHROMENA CILIATA, WHITETOP-SEDGE, CILIATA		-	-	-	-	-	-	-	-	-
46	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-988	19.	3.5	6.1	0.1	1.7	0.54*	0.44*	-	-
47			100.0	18.0	31.4	0.7	8.7	2.77*	2.27*	-	-
48	DIECTOMIS FASTIGIATA		-	-	-	-	-	-	-	-	-
49	-AERIAL PART, FRESH, LATE BLOOM, (2)	2-13-990	44.	1.9	18.7	0.3	1.2	0.88*	1.00*	-	-
50			100.0	4.3	42.5	0.7	2.7	2.00*	2.28*	-	-
51	DIGESTER TANKAGE		-	-	-	-	-	-	-	-	-
52	-SEE ANIMAL, CARCASS RESIDUE W BLOOD,		-	-	-	-	-	-	-	-	-
53	DRY OR WET RENDERED DEHY GRND, MN 9%		-	-	-	-	-	-	-	-	-
54	INDIGESTIBLE MATERIAL MX 4.4%		-	-	-	-	-	-	-	-	-
55	PHOSPHORUS, (5)		-	-	-	-	-	-	-	-	-
56	DIGITARIA DECUMBENS, PANGOLAGRASS		-	-	-	-	-	-	-	-	-
57	-AERIAL PART, DEHY, (1)	1-10-637	92.	9.6	29.5	1.8	7.8	2.09*	2.07*	-	-
58			100.0	10.5	32.2	2.0	8.5	2.28*	2.26*	-	-
59	-AERIAL PART, DEHY GRND, (1)	1-10-546	91.	10.5	33.4	2.7	9.0	1.92*	1.95*	-	-
60			100.0	11.6	36.8	3.0	9.9	2.12*	2.15*	-	-
61	-HAY, S-C, (1)	1-09-459	88.	7.9	29.8	2.1	6.0	2.03*	1.97*	-	-
62			100.0	8.9	34.0	2.4	6.9	2.31*	2.25*	-	-
63	-HAY, S-C, 1 TO 14 DAYS' GROWTH, (1)	1-10-635	98.	8.8	31.9	2.5	5.5	2.28*	2.20*	-	-
64			100.0	9.1	32.6	2.6	5.7	2.34*	2.25*	-	-
65	-HAY, S-C, 15 TO 28 DAYS' GROWTH, (1)	1-10-638	.97.	9.7	29.6	2.7	6.6	2.30*	2.21*	-	-
66			100.0	10.0	30.5	2.8	6.8	2.37*	2.28*	-	-
67	-HAY, S-C, MIDBLOOM, (1)	1-10-384	85.	6.6	-	-	5.6	-	1.84	-	-
68			100.0	7.8	-	-	6.7	-	2.18	-	-
69	-HAY, S-C, FULL BLOOM, (1)	1-10-857	94.	8.5	-	-	3.9	-	2.32	-	-
70			100.0	9.1	-	-	4.2	-	2.47	-	-
71	-HAY, S-C, MATURE, (1)	1-10-858	94.	5.8	-	-	3.3	-	2.15	-	-
72			100.0	6.2	-	-	3.5	-	2.29	-	-
73	-HEADS, S-C, (1)	1-13-434	92.	10.2	35.3	1.3	4.5	1.90*	1.92*	-	-
74			100.0	11.1	38.5	1.4	4.9	2.07*	2.09*	-	-
75	-LEAVES, S-C, (1)	1-13-435	93.	11.1	32.3	2.2	5.8	1.99*	1.97*	-	-
76			100.0	12.0	34.9	2.4	6.3	2.15*	2.12*	-	-
77	-STEMS, S-C, (1)	1-13-436	92.	6.7	34.6	1.5	3.7	2.07*	2.02*	-	-
78			100.0	7.3	37.5	1.6	4.0	2.24*	2.19*	-	-
79	-AERIAL PART, FRESH, (2)	2-03-493	22.	2.3	6.7	0.8	2.6	0.67	0.59*	-	-
80			100.0	10.3	30.0	3.8	11.7	3.01	2.66*	-	-
81	-AERIAL PART, FRESH, 1 TO	2-09-937	18.	2.0	5.0	0.5	2.7	0.49*	0.49*	-	-
82	14 DAYS' GROWTH, (2)		100.0	10.9	27.7	3.0	14.8	2.70*	2.72*	-	-
83	-AERIAL PART, FRESH, 15 TO	2-10-092	19.	2.2	5.7	0.7	2.4	0.52	0.50*	-	-
84	28 DAYS' GROWTH, (2)		100.0	11.8	30.3	3.7	12.9	2.74	2.65*	-	-
85	-AERIAL PART, FRESH, 29 TO	2-10-140	19.	2.2	6.4	0.7	2.3	0.43*	0.49*	-	-
86	42 DAYS' GROWTH, (2)		100.0	12.0	34.2	3.7	12.1	2.88*	2.59*	-	-
87	-AERIAL PART, FRESH, 43 TO	2-09-942	23.	2.5	7.5	0.7	2.4	0.47	0.61*	-	-
88	56 DAYS' GROWTH, (2)		100.0	10.8	31.8	3.1	10.1	2.01	2.58*	-	-
89	-AERIAL PART, FRESH, 57 TO	2-10-346	31.	3.7	9.3	1.1	2.1	0.80*	0.79*	-	-
90	70 DAYS' GROWTH, (2)		100.0	11.9	29.8	3.4	6.7	2.55*	2.54*	-	-
91	-AERIAL PART, FRESH, 71 TO	2-10-093	23.	-	-	0.8	1.9	0.85	-	-	-
92	84 DAYS' GROWTH, (2)		100.0	-	-	3.4	8.3	1.94	-	-	-
93	-AERIAL PART, FRESH, 183	2-09-943	18.	2.2	5.3	0.3	1.4	0.45*	0.48*	-	-
94	TO 196 DAYS' GROWTH, (2)		100.0	12.4	29.5	1.6	7.6	2.48*	2.52*	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	63.9*	62.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	60.4*	61.3*	-	1.24	-	-	-	0.34	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	64.7*	61.5*	-	1.27	-	-	-	0.29	-	-	-	44.0	-	-	8.1	-	-	-	-
09	67.5*	64.2*	-	1.33	-	-	-	0.30	-	-	-	45.9	-	-	8.5	-	-	-	-
10	-	-	-	0.84	-	-	-	0.27	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	4.88	-	-	-	1.57	-	-	-	-	-	-	-	-	-	-	-
12	-	7.6*	-	0.11	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
13	-	63.5*	-	0.90	-	-	-	0.46	-	-	-	-	-	-	-	-	-	-	-
14	20.1*	18.9*	-	0.31	-	-	64.6	0.08	0.29	15.2	-	-	-	-	-	-	-	-	-
15	58.0*	54.6*	-	0.89	-	-	187.0	0.23	0.85	44.0	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	12.4*	13.4*	-	0.30	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
18	57.4*	61.8*	-	1.41	-	-	-	0.59	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	0.31	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	1.04	-	-	-	0.24	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	13.7*	-	0.36	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
24	-	66.1*	-	1.74	-	-	-	0.40	-	-	-	-	-	-	-	-	-	-	-
25	25.9*	24.7*	-	0.76	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
26	63.9*	60.8*	-	1.88	-	-	-	0.29	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	14.3*	14.7*	-	0.23	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
29	57.4*	58.8*	-	0.93	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	14.4*	14.5*	-	0.22	-	-	0.4	0.06	1.14	-	-	-	-	-	-	-	-	-	-
32	62.7*	63.2*	-	0.95	-	-	1.5	0.26	4.98	-	-	-	-	-	-	-	-	-	-
33	14.5*	13.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	68.5*	65.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	0.23	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	0.61	-	-	-	0.40	-	-	-	-	-	-	-	-	-	-	-
37	16.7*	17.3*	-	0.32	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
38	58.8*	61.0*	-	1.13	-	-	-	0.27	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	68.6*	-	1.42	-	-	-	0.30	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	12.2*	10.0*	-	0.07	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
47	62.7*	51.5*	-	0.34	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	19.9*	22.7*	-	0.05	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
50	45.3*	51.6*	-	0.12	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	47.5*	46.9*	-	0.50	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
58	51.8*	51.2*	-	0.55	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
59	43.6*	44.2*	-	0.54	-	-	-	0.17	-	-	-	22.5	-	-	-	-	-	-	-
60	48.2*	48.8*	-	0.59	-	-	-	0.18	-	-	-	24.9	-	-	-	-	-	-	-
61	46.0*	44.8*	-	0.31	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
62	52.4*	51.0*	-	0.35	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
63	51.8*	49.8*	-	0.26	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
64	53.0*	51.0*	-	0.27	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
65	52.2*	50.2*	-	0.31	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
66	53.8*	51.7*	-	0.32	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
67	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	-	0.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	-	0.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	-	0.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	0.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	43.2*	43.6*	-	0.11	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
74	47.0*	47.5*	-	0.11	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
75	45.2*	44.6*	-	0.19	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
76	48.8*	48.2*	-	0.21	-	-	-	0.19	-	-	-	-	-	-	-	-	-	-	-
77	46.9*	45.8*	-	0.13	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
78	50.9*	49.7*	-	0.14	-	-	-	0.24	-	-	-	-	-	-	-	-	-	-	-
79	15.1	13.5*	-	0.08	0.026	1.3	116.9	0.04	0.11	24.1	-	-	-	-	-	-	-	-	-
80	67.8	60.4*	-	0.36	0.115	6.0	523.5	0.19	1.37	107.8	-	-	-	-	-	-	-	-	-
81	11.0*	11.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	61.3*	61.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	10.8*	11.3*	-	0.08	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
84	57.5*	60.1*	-	0.43	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-
85	9.7*	11.0*	-	0.81	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-
86	51.7*	58.8*	-	4.31	-	-	-	1.15	-	-	-	-	-	-	-	-	-	-	-
87	13.0*	13.7*	-	0.15	-	-	-	0.06	0.22	-	-	-	-	-	-	-	-	-	-
88	55.6*	58.6*	-	0.63	-	-	-	0.25	0.94	-	-	-	-	-	-	-	-	-	-
89	18.1*	18.0*	-	0.10	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
90	57.8*	57.5*	-	0.34	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	0.08	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	0.35	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-
93	10.1*	10.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	56.3*	57.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	*AERIAL PART, FRESH, EARLY VEGETATIVE, (2)	2-10-114	21.	1.9	6.3	0.5	2.1	0.56*	0.57*	-	-
02			100.0	8.7	29.4	2.2	9.9	2.63*	2.66*	-	-
03	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-10-135	21.	1.8	9.6	0.3	1.5	-	-	-	-
04			100.0	8.7	45.4	1.4	7.1	-	-	-	-
05	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-10-218	23.	2.0	8.3	0.5	2.2	0.53*	0.59*	-	-
06			100.0	8.7	35.7	2.4	9.4	2.31*	2.54*	-	-
07	*AERIAL PART, FRESH, LATE BLOOM, (2)	2-10-408	26.	3.0	7.5	0.5	1.5	0.65*	0.66*	-	-
08			100.0	11.4	28.9	1.8	5.6	2.48*	2.55*	-	-
09	*AERIAL PART, FRESH, MATURE, (2)	2-05-662	-	-	-	-	-	-	-	-	-
10			100.0	11.5	38.8	4.1	13.8	-	2.67*	-	-
11	*AERIAL PART, FRESH, CUT 1, (2)	2-10-547	23.	2.1	7.5	0.9	2.4	0.60*	0.60*	-	-
12			100.0	9.2	32.8	4.1	10.7	2.63*	2.63*	-	-
13	*AERIAL PART, FRESH, CUT 2, (2)	2-10-386	25.	2.8	8.1	0.7	2.5	0.59*	0.63*	-	-
14			100.0	11.3	32.8	2.9	10.1	2.37*	2.55*	-	-
15	*AERIAL PART, FRESH, CUT 3, (2)	2-10-548	29.	5.2	15.4	1.3	3.9	-	-	-	-
16			100.0	17.8	53.2	4.4	13.6	-	-	-	-
17	*AERIAL PART, FRESH, CUT 5, (2)	2-10-550	25.	5.6	30.0	3.3	8.9	-	-	-	-
18			100.0	22.5	121.4	13.5	36.1	-	-	-	-
19	*AERIAL PART, FRESH, CUT 6, (2)	2-11-635	25.	2.5	7.8	0.9	2.1	0.66*	0.65*	-	-
20			100.0	10.0	31.1	3.7	8.4	2.64*	2.58*	-	-
21	*AERIAL PART, FRESH, CUT 7, (2)	2-11-636	22.	2.4	7.8	0.7	1.6	0.48*	0.55*	-	-
22			100.0	10.9	35.4	3.2	7.5	2.18*	2.48*	-	-
23	*AERIAL PART, FRESH	2-10-365	29.	2.7	8.2	0.6	3.8	0.80*	0.80*	-	-
24	CHOPPED FERTILIZED, 15 TO 28 DAYS'		100.0	9.3	28.1	2.2	13.1	2.71*	2.73*	-	-
25	GROWTH, (2)		-	-	-	-	-	-	-	-	-
26	*AERIAL PART, FRESH FERTILIZED, (2)	2-09-702	18.	1.9	5.4	0.7	2.2	0.48*	0.48*	-	-
27			100.0	10.5	30.1	3.8	12.0	2.67*	2.66*	-	-
28	*AERIAL PART, FRESH	2-11-632	14.	1.7	-	0.3	1.5	-	-	-	-
29	FERTILIZED, 15 TO 28 DAYS' GROWTH, (2)		100.0	12.0	-	2.3	10.6	-	-	-	-
30	*AERIAL PART, FRESH	2-10-139	31.	3.3	-	0.4	2.8	-	-	-	-
31	FERTILIZED, 29 TO 42 DAYS' GROWTH, (2)		100.0	10.6	-	1.4	9.0	-	-	-	-
32	*AERIAL PART, FRESH	2-10-345	23.	2.2	-	0.3	2.5	-	-	-	-
33	FERTILIZED, 43 TO 56 DAYS' GROWTH, (2)		100.0	9.4	-	1.1	10.8	-	-	-	-
34	*AERIAL PART, FRESH	2-10-388	17.	1.8	5.2	0.3	1.0	0.40*	0.42*	-	-
35	FERTILIZED, LATE BLOOM, CUT 1, (2)		100.0	10.6	30.9	1.8	5.7	2.41*	2.52*	-	-
36	*AERIAL PART, FRESH FERTILIZED, CUT 2, (2)	2-10-387	35.	4.5	11.3	0.8	3.0	0.80*	0.86*	-	-
37			100.0	12.9	32.6	2.3	8.5	2.31*	2.48*	-	-
38	*LEAVES, FRESH, (2)	2-09-595	-	-	-	-	-	-	-	-	-
39			100.0	9.9	31.1	2.1	9.2	2.49*	2.58*	-	-
40	*STEMS, FRESH, 43 TO 56 DAYS' GROWTH, (2)	2-10-860	-	-	-	-	-	-	-	-	-
41			100.0	-	32.4	1.4	8.1	2.47*	2.61*	-	-
42	*AERIAL PART, ENSILED, (3)	3-03-495	54.	5.9	18.6	1.9	5.1	1.31*	1.35*	-	-
43			100.0	10.8	34.3	3.4	9.4	2.41*	2.49*	-	-
44	DIGITARIA ERIANTHA, FINGERGRASS, WOOLLY		-	-	-	-	-	-	-	-	-
45	*AERIAL PART, FRESH, (2)	2-10-484	24.	2.2	7.3	0.5	3.0	0.62*	0.63*	-	-
46			100.0	9.4	30.4	2.2	12.5	2.60*	2.65*	-	-
47	DIGITARIA LONGIFLORA, CRABGRASS, LONGIFLORA		-	-	-	-	-	-	-	-	-
48	*AERIAL PART, FRESH, (2)	2-11-061	25.	2.2	7.8	0.7	2.4	0.63*	0.64*	-	-
49			100.0	8.9	31.6	3.0	9.6	2.55*	2.62*	-	-
50	DIGITARIA MACROGLOSSA, CRABGRASS, MACROGLOSSA		-	-	-	-	-	-	-	-	-
51	*AERIAL PART, FRESH, (2)	2-11-057	25.	2.9	7.4	0.5	2.2	0.63*	0.64*	-	-
52			100.0	11.7	29.5	1.8	8.9	2.51*	2.56*	-	-
53	DIGITARIA PENTZI, FINGERGRASS, PENTZ		-	-	-	-	-	-	-	-	-
54	*AERIAL PART, FRESH, (2)	2-01-961	22.	2.2	7.7	0.5	1.9	0.53*	0.56*	-	-
55			100.0	10.0	34.1	2.0	8.3	2.34*	2.50*	-	-
56	*LEAVES, FRESH, (2)	2-17-468	-	-	-	-	-	-	-	-	-
57			100.0	14.4	31.5	3.1	10.7	2.27*	2.52*	-	-
58	DIGITARIA SMUTSII, CRABGRASS, SMUTSII		-	-	-	-	-	-	-	-	-
59	*AERIAL PART, FRESH, CUT 4, (2)	2-11-639	58.	5.7	24.1	1.8	3.5	1.07*	1.42*	-	-
60			100.0	9.7	41.3	3.1	5.9	1.83*	2.42*	-	-
61	DIGITARIA SPP, CRABGRASS		-	-	-	-	-	-	-	-	-
62	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-466	39.	4.0	12.0	0.7	1.8	0.95*	0.99*	-	-
63			100.0	10.1	30.6	1.7	4.7	2.41*	2.53*	-	-
64	DIGITARIA VALIDA, CRABGRASS, VALIDA		-	-	-	-	-	-	-	-	-
65	*HAY, S-C, (1)	1-11-063	92.	10.6	34.6	3.7	7.2	1.89*	1.91*	-	-
66			100.0	11.5	37.5	4.0	7.8	2.05*	2.07*	-	-
67	*AERIAL PART, FRESH, (2)	2-11-058	26.	2.7	9.1	0.6	2.4	0.60*	0.66*	-	-
68			100.0	10.4	34.6	2.4	9.1	2.31*	2.51*	-	-
69	DIOCLEA VIRGATUS, CLUSTERPEA, VIRGATUS		-	-	-	-	-	-	-	-	-
70	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-459	22.	1.7	7.5	0.4	3.6	0.60*	0.59*	-	-
71			100.0	7.5	33.7	1.6	16.1	2.70*	2.69*	-	-
72	DISSANTHELIUM CALYSIMUM, CATALINAGRASS,		-	-	-	-	-	-	-	-	-
73	CALYSIMUM		-	-	-	-	-	-	-	-	-
74	*AERIAL PART, FRESH, (2)	2-11-647	-	-	-	-	-	-	-	-	-
75			100.0	2.9	-	-	3.8	-	-	-	-
76	DISSANTHELIUM MINIMUM, CATALINAGRASS, MINIMUM		-	-	-	-	-	-	-	-	-
77	*AERIAL PART, FRESH, (2)	2-11-648	-	-	-	-	-	-	-	-	-
78			100.0	4.7	31.9	2.9	7.7	2.69*	2.68*	-	-
79	DISSANTHELIUM SPP, CATALINAGRASS		-	-	-	-	-	-	-	-	-
80	*AERIAL PART, FRESH, (2)	2-11-649	-	-	-	-	-	-	-	-	-
81			100.0	5.5	40.5	3.4	6.1	2.01*	2.49*	-	-
82	DISTICHLIS HUMILIS, SALTGRASS, HUMILIS		-	-	-	-	-	-	-	-	-
83	*AERIAL PART, FRESH, (2)	2-11-053	-	-	-	-	-	-	-	-	-
84			100.0	5.6	-	-	2.1	-	-	-	-
85	*AERIAL PART, FRESH, MATURE, (2)	2-11-054	-	-	-	-	-	-	-	-	-
86			100.0	5.7	24.9	2.5	9.7	3.15*	2.89*	-	-
87	DOLICHOS LABLAB, DOLICHOS, HYACINTH		-	-	-	-	-	-	-	-	-
88	*HAY, S-C, (1)	1-01-805	92.	6.6	16.6	3.8	23.9	3.02*	2.89*	-	-
89			100.0	7.2	18.1	4.2	26.1	3.30*	3.16*	-	-
90	*AERIAL PART, FRESH, (2)	2-09-703	18.	2.1	6.3	1.1	5.2	-	-	-	-
91			100.0	11.4	34.5	6.2	28.2	-	-	-	-
92	*AERIAL PART, FRESH, STEM CURED, (2)	2-17-449	32.	1.3	12.2	0.5	2.8	0.72*	0.82*	-	-
93			100.0	4.0	38.2	1.7	8.8	2.25*	2.55*	-	-
94	DOLICHOS ROUNGAI		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	12.7*	12.9*	-	0.09	0.060	1.6	66.9	0.05	-	-	-	-	-	-	-	-	-	-	-
02	59.6*	60.4*	-	0.40	0.280	7.3	312.7	0.21	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	0.17	-	7.4	26.3	0.12	0.41	11.9	-	-	-	-	-	-	-	-	-
04	-	-	-	0.79	-	35.1	124.2	0.58	1.93	56.2	-	-	-	-	-	-	-	-	-
05	12.1*	13.3*	-	0.06	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
06	52.4*	57.6*	-	0.24	-	-	-	0.24	-	-	-	-	-	-	-	-	-	-	-
07	14.6*	15.0*	-	0.10	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
08	56.3*	57.9*	-	0.38	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	60.6*	-	0.57	0.109	11.4	198.7	0.75	2.23	54.0	-	-	-	-	-	-	-	-	-
11	13.6*	13.6*	-	0.06	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
12	59.6*	59.6*	-	0.27	-	-	-	0.49	-	-	-	-	-	-	-	-	-	-	-
13	13.3*	14.4*	-	0.10	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
14	53.7*	57.9*	-	0.40	-	-	-	0.27	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	0.13	-	-	6.2	0.14	0.31	9.3	-	-	-	-	-	-	-	-	-
16	-	-	-	0.47	-	-	21.5	0.50	1.06	32.0	-	-	-	-	-	-	-	-	-
17	-	-	-	0.24	-	-	-	0.24	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	0.98	-	-	-	0.97	-	-	-	-	-	-	-	-	-	-	-
19	15.0*	14.7*	-	0.08	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
20	59.9*	58.6*	-	0.32	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
21	10.9*	12.4*	-	0.06	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
22	49.4*	56.4*	-	0.25	-	-	-	0.43	-	-	-	-	-	-	-	-	-	-	-
23	18.0*	18.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	61.4*	61.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	10.9*	10.9*	-	0.05	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
27	60.6*	60.4*	-	0.26	-	-	-	0.19	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	0.08	-	-	-	0.07	0.38	-	-	-	-	-	-	-	-	-	-
29	-	-	-	0.61	-	-	-	0.49	2.76	-	-	-	-	-	-	-	-	-	-
30	-	-	-	0.21	-	2.0	26.1	0.06	0.35	-	-	-	-	-	-	-	-	-	-
31	-	-	-	0.67	-	6.4	83.3	0.20	1.11	-	-	-	-	-	-	-	-	-	-
32	-	-	-	0.07	-	-	-	0.06	0.38	-	-	-	-	-	-	-	-	-	-
33	-	-	-	0.29	-	-	-	0.26	1.63	-	-	-	-	-	-	-	-	-	-
34	9.2*	9.6*	-	0.05	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
35	54.6*	57.1*	-	0.31	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
36	18.2*	19.5*	-	0.10	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
37	52.4*	56.2*	-	0.30	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	56.4*	58.5*	-	0.54	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	56.1*	59.3*	-	0.25	-	-	-	0.15	1.90	-	-	-	-	-	-	-	-	-	-
42	29.6*	30.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	54.6*	56.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	14.1*	14.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	59.0*	60.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	14.2*	14.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	57.9*	59.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	14.3*	14.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	56.9*	58.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	11.9*	12.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	53.1*	56.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	51.5*	57.1*	-	0.96	-	-	-	0.44	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	24.3*	32.1*	-	0.19	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
60	41.6*	55.0*	-	0.32	-	-	-	0.39	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	21.5*	22.5*	-	0.20	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
63	54.6*	57.3*	-	0.52	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	42.8*	43.3*	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-
66	46.4*	46.9*	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-
67	13.7*	14.9*	-	0.01	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
68	52.3*	57.0*	-	0.05	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	13.7*	13.5*	-	0.26	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
71	61.2*	60.2*	-	1.17	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	-	-	-	0.18	0.048	1.4	205.4	0.13	-	43.1	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	61.0*	60.7*	-	0.27	0.082	7.9	201.0	0.17	-	72.0	-	-	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	45.5*	56.4*	-	0.37	0.136	11.2	-	0.11	-	32.5	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	0.46	0.393	3.6	85.3	0.08	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	71.6*	65.5*	-	0.13	0.080	3.6	15.9	0.06	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	68.5*	65.6*	-	0.01	-	-	-		-	-	-	-	-	-	-	-	-	-	-
89	74.8*	71.7*	-	0.01	-	-	-		-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	0.91	-	-	-	0.38	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	5.00	-	-	-	2.07	-	-	-	-	-	-	-	-	-	-	-
92	16.4*	18.5*	-	0.13	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
93	51.1*	57.8*	-	0.41	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO, Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			On as fed and dry basis (moisture-free)								
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	-AERIAL PART, FRESH, (2)	2-17-454	16.	1.6	3.9	0.7	3.2	0.50*	0.48*	-	-
02			100.0	9.8	24.1	4.1	19.9	3.07*	2.94*	-	-
03	DRIED APPLE POMACE (AAFCO)		-	-	-	-	-	-	-	-	-
04	-SEE MALUS SPP, PULP, DEHY GRND, (4)		-	-	-	-	-	-	-	-	-
05	DRIED BEET PULP (CFA)		-	-	-	-	-	-	-	-	-
06	-SEE BETA SACCHARIFERA SUGAR, PULP,		-	-	-	-	-	-	-	-	-
07	DEHY, (4)		-	-	-	-	-	-	-	-	-
08	DRIED BEET PULP (AAFCO)		-	-	-	-	-	-	-	-	-
09	-SEE BETA SACCHARIFERA SUGAR, PULP,		-	-	-	-	-	-	-	-	-
10	DEHY, (4)		-	-	-	-	-	-	-	-	-
11	DRIED BUTTERMILK, FEED GRADE (AAFCO)		-	-	-	-	-	-	-	-	-
12	-SEE BOS SPP, BUTTERMILK, DEHY, FEED		-	-	-	-	-	-	-	-	-
13	GR MX 8% MOISTURE MX 13% ASH MN 5%		-	-	-	-	-	-	-	-	-
14	FAT, (5)		-	-	-	-	-	-	-	-	-
15	DRIED CITRUS PULP (AAFCO)		-	-	-	-	-	-	-	-	-
16	-SEE CITRUS SPP, PULP NO FINES,		-	-	-	-	-	-	-	-	-
17	SHREDDED DEHY, (4)		-	-	-	-	-	-	-	-	-
18	DRIED MILK ALBUMIN (AAFCO)		-	-	-	-	-	-	-	-	-
19	-SEE BOS SPP, WHEY ALBUMIN, HEAT AND		-	-	-	-	-	-	-	-	-
20	ACID PRECIPITATED DEHY, MN 75%		-	-	-	-	-	-	-	-	-
21	PROTEIN, (5)		-	-	-	-	-	-	-	-	-
22	DRIED SKIMMED MILK, FEED GRADE (AAFCO)		-	-	-	-	-	-	-	-	-
23	-SEE BOS SPP, MILK, SKIMMED DEHY, MX		-	-	-	-	-	-	-	-	-
24	8% MOISTURE, (5)		-	-	-	-	-	-	-	-	-
25	DRIED WHEY (AAFCO)		-	-	-	-	-	-	-	-	-
26	-SEE BOS SPP, WHEY, DEHY, MN 65%		-	-	-	-	-	-	-	-	-
27	LACTOSE, (4)		-	-	-	-	-	-	-	-	-
28	DRIED WHOLE MILK, FEED GRADE (AAFCO)		-	-	-	-	-	-	-	-	-
29	-SEE BOS SPP, MILK, DEHY, FEED GR MX		-	-	-	-	-	-	-	-	-
30	8% MOISTURE MN 26% FAT, (5)		-	-	-	-	-	-	-	-	-
31	DYSSODIA MICROPOIDES, DOGWEED, MICROPOIDES		-	-	-	-	-	-	-	-	-
32	EAR CORN CHOP (AAFCO)		-	-	-	-	-	-	-	-	-
33	-SEE ZEA MAYS, EARS, GRND, (4)		-	-	-	-	-	-	-	-	-
34	ECHINOCHLOA COLONUM, JUNGLERICE		-	-	-	-	-	-	-	-	-
35	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-475	16.	2.0	5.0	0.2	2.5	0.43*	0.41*	-	-
36			100.0	12.5	31.0	1.5	15.3	2.66*	2.55*	-	-
37	ECHINOCHLOA CRUSPAVONIS, COCKSPUR, GULF		-	-	-	-	-	-	-	-	-
38	-AERIAL PART, FRESH, MILK STAGE, (2)	2-17-473	22.	2.1	6.8	0.2	3.1	0.61*	0.57*	-	-
39			100.0	9.6	30.9	0.9	14.2	2.74*	2.59*	-	-
40	ECHINOCHLOA POLYSTACHYA, COCKSPUR, AFRICAN		-	-	-	-	-	-	-	-	-
41	WONDER		-	-	-	-	-	-	-	-	-
42	-HAY, S-C, (1)	1-11-345	95.	11.9	29.9	3.5	13.2	2.13*	2.16*	-	-
43			100.0	12.6	31.6	3.7	14.0	2.26*	2.28*	-	-
44	- LEAVES, S-C, (1)	1-13-438	91.	17.2	33.1	1.0	6.6	1.69*	1.79*	-	-
45			100.0	18.8	36.2	1.1	7.2	1.85*	1.96*	-	-
46	-AERIAL PART, FRESH, (2)	2-11-158	19.	2.1	6.4	0.4	2.8	0.47*	0.48*	-	-
47			100.0	11.3	34.7	2.1	15.1	2.54*	2.58*	-	-
48	-AERIAL PART, FRESH, 15 TO 28 DAYS' GROWTH,	2-11-118	17.	2.3	5.4	0.5	2.2	0.46	0.44*	-	-
49	(2)		100.0	13.3	31.6	2.9	13.0	2.72	2.57*	-	-
50	-AERIAL PART, FRESH, 43 TO 56 DAYS' GROWTH,	2-11-168	21.	2.4	7.4	0.4	1.7	0.48	0.51*	-	-
51	(2)		100.0	11.5	35.6	2.1	8.3	2.32	2.45*	-	-
52	ECHINOCHLOA SPECTABILIS, COCKSPUR, SPECTABILIS		-	-	-	-	-	-	-	-	-
53	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-17-474	22.	2.7	6.5	0.2	2.3	0.59*	0.56*	-	-
54			100.0	12.0	29.3	1.0	10.2	2.64*	2.53*	-	-
55	ELAEIS GUINEENSIS, OILPALM, AFRICAN		-	-	-	-	-	-	-	-	-
56	-KERNELS W HULLS, MECH EXTD, (5)	5-10-692	95.	4.9	22.9	10.2	20.2	3.09*	2.94*	-	-
57			100.0	5.2	24.2	10.8	21.4	3.26*	3.11*	-	-
58	ELEUSINE INDICA, GOOSEGRASS		-	-	-	-	-	-	-	-	-
59	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-477	23.	3.0	7.2	0.5	2.5	0.86*	0.58*	-	-
60			100.0	13.0	31.4	2.2	10.8	2.42*	2.52*	-	-
61	ELYONURUS TRIPSACOIDES, BALSAMSCALE, PANAMERICAN		-	-	-	-	-	-	-	-	-
62	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-00-481	38.	2.0	15.2	1.3	2.2	0.75*	0.93*	-	-
63			100.0	5.3	40.6	3.5	5.9	2.01*	2.48*	-	-
64	ENGRAULIS SPP, FISH, ANCHOVY		-	-	-	-	-	-	-	-	-
65	-WHOLE OR CUTTINGS,	5-01-985	93.	13.9	0.8	9.3	65.5	-	-	3159.*	2616.
66	COOKED MECH EXTD DEHY GRND, (5)		100.0	14.9	0.9	10.0	70.4	-	-	3392.*	2809.
67	FISH MEAL, ANCHOVY		-	-	-	-	-	-	-	-	-
68	ERAGROSTIS ABYSSINICA, TEFF		-	-	-	-	-	-	-	-	-
69	-AERIAL PART, DEHY, (1)	1-11-675	97.	9.0	33.4	3.2	10.5	2.23*	2.21*	-	-
70			100.0	9.3	34.6	3.3	10.9	2.31*	2.29*	-	-
71	ERAGROSTIS CHLOROMELAS, LOVEGRASS, BOER		-	-	-	-	-	-	-	-	-
72	-AERIAL PART, FRESH, (2)	2-02-652	39.	5.1	14.6	1.5	3.1	0.76*	0.96*	-	-
73			100.0	13.2	37.5	3.7	8.0	1.96*	2.46*	-	-
74	ERAGROSTIS CURVULA, LOVEGRASS, WEEPING		-	-	-	-	-	-	-	-	-
75	-HAY, S-C, MATURE, CUT 1, (1)	1-11-542	91.	3.6	32.8	1.6	4.4	2.19*	2.11*	-	-
76			100.0	4.0	36.1	1.7	4.8	2.41*	2.32*	-	-
77	-AERIAL PART, FRESH, (2)	2-02-677	59.	5.2	21.4	0.9	5.1	1.41*	1.46*	-	-
78			100.0	8.8	36.2	1.5	8.6	2.38*	2.47*	-	-
79	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-17-482	37.	3.7	14.2	0.9	3.1	0.80*	0.92*	-	-
80			100.0	9.8	38.2	2.4	8.4	2.16*	2.47*	-	-
81	-AERIAL PART, FRESH FERTILIZED, CUT 2, (2)	2-10-660	42.	-	-	-	4.0	-	-	-	-
82			100.0	-	-	-	9.5	-	-	-	-
83	ERAGROSTIS LUGENS, LOVEGRASS, MOURNING		-	-	-	-	-	-	-	-	-
84	-AERIAL PART, FRESH, FULL BLOOM, (2)	2-10-662	48.	4.9	15.2	0.7	2.7	1.16*	1.20*	-	-
85			100.0	10.1	31.5	1.5	5.6	2.41*	2.50*	-	-
86	ERAGROSTIS SUPERBA, LOVEGRASS, SUPERBA		-	-	-	-	-	-	-	-	-
87	-AERIAL PART, FRESH, (2)	2-11-669	40.	5.2	14.6	1.2	3.5	0.84*	0.98*	-	-
88			100.0	13.1	36.6	2.9	8.8	2.09*	2.46*	-	-
89	ERIOCHLOA POLYSTACHYA, CUPGRASS, CARIB		-	-	-	-	-	-	-	-	-
90	-AERIAL PART, FRESH, (2)	2-10-430	29.	3.4	9.0	0.5	2.5	0.72*	0.73*	-	-
91			100.0	11.7	31.0	1.6	8.8	2.48*	2.51*	-	-
92	-AERIAL PART,	2-11-372	19.	2.3	5.6	0.5	2.4	0.46*	0.48*	-	-
93	FRESH, 15 TO 28 DAYS' GROWTH, (2)		100.0	12.4	30.2	2.8	12.7	2.47*	2.60*	-	-
94	EUCHLAENA MEXICANA, TEOSINTE, MEXICAN		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	11.3*	10.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	69.5*	66.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9.7*	9.3*	-	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	60.4*	57.9*	-	0.72	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-
38	13.8*	13.0*	-	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	62.2*	58.7*	-	0.46	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	48.4*	48.9*	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	51.2*	51.7*	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	38.4*	40.7*	-	0.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	42.0*	44.5*	-	0.22	-	-	-	0.20	-	-	-	-	-	-	-	-	-	-	-
46	10.7*	10.8*	-	0.12	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-
47	57.6*	58.4*	-	0.66	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
48	9.1*	9.9*	-	-	-	-	-	0.25	-	-	-	-	-	-	-	-	-	-	-
49	53.8*	58.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	10.6*	11.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	51.4*	55.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	13.3*	12.7*	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	60.0*	57.3*	-	0.25	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-
56	70.0*	66.6*	-	0.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	74.0*	70.4*	-	0.21	-	-	-	0.69	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	0.73	-	-	-	6.6	-	-	-	-	-	-	-
59	12.6*	13.1*	-	0.12	-	-	-	-	-	-	-	7.0	-	-	-	-	-	-	-
60	55.0*	57.1*	-	0.51	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
62	17.1*	21.1*	-	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	45.6*	56.3*	-	0.26	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
65	-	-	71.6	3.52	-	9.4	9.6	2.66	0.69	103.9	4462.	101.3	14.8	-	7.1	0.62	5.13	1.90	0.73
66	-	-	76.9	3.78	-	10.1	10.3	2.85	0.75	111.6	4791.	108.7	15.9	-	7.7	0.66	5.51	2.04	0.79
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	50.6*	50.0*	-	0.50	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
70	52.5*	51.9*	-	0.52	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	17.3*	21.7*	-	0.04	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
73	44.4*	55.7*	-	0.10	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	49.6*	47.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	54.6*	52.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	31.9*	33.[illegible]*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	53.9*	56.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	18.2*	20.9*	-	0.11	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
80	48.9*	56.1*	-	0.29	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	0.13	-	6.1	20.0	0.11	0.65	10.5	-	-	-	-	-	-	-	-	-
82	-	-	-	0.30	-	14.4	47.7	0.25	1.54	25.0	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	26.3*	27.3*	-	0.07	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
85	54.6*	56.8*	-	0.14	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	18.9*	22.3*	-	0.03	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
88	47.4*	55.8*	-	0.08	-	-	-	0.21	-	-	-	-	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	16.3*	16.5*	-	0.13	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
91	56.3*	56.9*	-	0.44	-	-	-	0.20	-	-	-	-	-	-	-	-	-	-	-
92	10.4*	10.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	56.1*	59.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	*AERIAL PART, DEHY, (1)	1-10-689	96.	12.2	21.6	3.1	7.6	2.45*	2.33*	-	-
02			100.0	12.7	22.5	3.2	7.9	2.55*	2.42*	-	-
03	EUPATORIUM ODORATUM, EUPATORIUM, CHRISTMASBUSH		-	-	-	-	-	-	-	-	-
04	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-491	21.	1.8	9.4	0.3	3.2	-	-	-	-
05			100.0	8.7	44.7	1.3	15.3	-	-	-	-
06	FAGOPYRUM SPP, BUCKWHEAT		-	-	-	-	-	-	-	-	-
07	*GRAIN, (4)	4-00-994	88.	2.0	9.9	2.3	11.0	2.89*	2.75*	3014.*	2660.
08			100.0	2.3	11.2	2.6	12.5	3.29*	3.13*	3430.*	3027.
09	FAGOPYRUM TATARICUM, BUCKWHEAT, TARTARY		-	-	-	-	-	-	-	-	-
10	FEATHER MEAL		-	-	-	-	-	-	-	-	-
11	*SEE POULTRY, FEATHERS, HYDROLYZED		-	-	-	-	-	-	-	-	-
12	DEHY GRND, MN 75% OF PROTEIN		-	-	-	-	-	-	-	-	-
13	DIGESTIBLE, (5)		-	-	-	-	-	-	-	-	-
14	FEEDING BONE MEAL (CFA)		-	-	-	-	-	-	-	-	-
15	*SEE ANIMAL, BONES, COOKED DEHY GRND,		-	-	-	-	-	-	-	-	-
16	MN 10% PHOSPHORUS, (6)		-	-	-	-	-	-	-	-	-
17	FEEDING OAT MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
18	*SEE AVENA SATIVA, CEREAL BY-PRODUCT,		-	-	-	-	-	-	-	-	-
19	MX 4% FIBER, (4)		-	-	-	-	-	-	-	-	-
20	FESTUCA ARUNDINACEA, FESCUE, ALTA		-	-	-	-	-	-	-	-	-
21	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-10-240	24.	2.8	6.4	0.4	3.6	0.63*	0.63*	-	-
22			100.0	11.7	27.3	1.9	15.2	2.66*	2.66*	-	-
23	*AERIAL PART, ENSILED, (3)	3-17-535	35.	5.2	10.8	1.2	3.5	0.83*	0.85*	-	-
24			100.0	14.8	30.7	3.3	9.9	2.37*	2.40*	-	-
25	FESTUCA DOLICHOPHYLLA, FESCUE, DOLICHOPHYLLA		-	-	-	-	-	-	-	-	-
26	*AERIAL PART, FRESH, (2)	2-10-919	-	-	-	-	-	-	-	-	-
27			100.0	4.3	35.9	2.1	5.6	2.22*	2.55*	-	-
28	*AERIAL PART, FRESH, MATURE, (2)	2-10-918	-	-	-	-	-	-	-	-	-
29			100.0	4.1	44.3	1.0	2.5	-	-	-	-
30	*AERIAL PART, FRESH, POST RIPE, (2)	2-11-870	54.	4.6	19.2	0.8	2.6	1.21*	1.32*	-	-
31			100.0	8.5	35.4	1.5	4.8	2.23*	2.44*	-	-
32	FESTUCA ELATIOR, FESCUE, MEADOW		-	-	-	-	-	-	-	-	-
33	*AERIAL PART, FRESH, EARLY BLOOM, CUT 1, (2)	2-10-506	18.	2.0	4.8	0.6	3.5	0.49*	0.50*	-	-
34			100.0	10.9	26.8	3.2	19.3	2.73*	2.80*	-	-
35	*AERIAL PART, FRESH, CUT 1, (2)	2-10-504	18.	1.9	5.2	0.7	2.4	0.51*	0.49*	-	-
36			100.0	10.2	28.6	3.9	13.4	2.82*	2.72*	-	-
37	FESTUCA MEGALURA, FESCUE, FOXTAIL		-	-	-	-	-	-	-	-	-
38	*AERIAL PART, FRESH, MATURE, (2)	2-01-893	-	-	-	-	-	-	-	-	-
39			100.0	4.4	39.0	1.8	2.8	1.88*	2.42*	-	-
40	FESTUCA SPP, FESCUE		-	-	-	-	-	-	-	-	-
41	*AERIAL PART, FRESH, (2)	2-01-879	45.	4.7	13.4	1.5	2.6	1.18*	1.14*	-	-
42			100.0	10.5	29.9	3.3	5.8	2.64*	2.55*	-	-
43	FISH		-	-	-	-	-	-	-	-	-
44	*STICKWATER SOLUBLES, CONDENSED, MN 30%	5-01-969	51.	9.4	0.2	6.6	31.5	-	1.87*	1924.*	1455.
45	PROTEIN, (5)		100.0	18.7	0.4	13.1	62.2	-	3.71*	3804.*	2876.
46	CONDENSED FISH SOLUBLES (AAFCO)		-	-	-	-	-	-	-	-	-
47	*WHOLE OR CUTTINGS, COOKED MECH EXTD DEHY	5-01-976	92.	20.4	1.0	7.6	57.0	2.99*	2.51*	-	-
48	GRND, (5)		100.0	22.3	1.1	8.3	62.2	3.26*	2.74*	-	-
49	FISH MEAL (CFA)		-	-	-	-	-	-	-	-	-
50	*WHOLE OR CUTTINGS, COOKED MECH EXTD DEHY	5-01-982	92.	13.9	0.9	10.1	66.7	-	-	-	-
51	GRND, 65% PROTEIN, (5)		100.0	15.2	0.9	11.0	72.8	-	-	-	-
52	*WHOLE OR CUTTINGS, COOKED MECH EXTD DEHY	5-01-981	92.	16.0	1.0	10.4	62.0	-	2.90*	-	-
53	GRND, 60% PROTEIN, (5)		100.0	17.5	1.1	11.3	67.7	-	3.17*	-	-
54	FISH MEAL, ANCHOVY		-	-	-	-	-	-	-	-	-
55	*SEE ENGRAULIS SPP ANCHOVY, WHOLE OR		-	-	-	-	-	-	-	-	-
56	CUTTINGS, COOKED MECH EXTD DEHY GRND,		-	-	-	-	-	-	-	-	-
57	(5)		-	-	-	-	-	-	-	-	-
58	FISH MEAL, HERRING		-	-	-	-	-	-	-	-	-
59	*SEE CLUPEA HARENGUS, HARENGUS, CLUPEA		-	-	-	-	-	-	-	-	-
60	HARENGUS, PALLASI HERRING, WHOLE OR		-	-	-	-	-	-	-	-	-
61	CUTTINGS, COOKED MECH EXTD DEHY GRND,		-	-	-	-	-	-	-	-	-
62	(5)		-	-	-	-	-	-	-	-	-
63	FISH MEAL, MENHADEN		-	-	-	-	-	-	-	-	-
64	*SEE BREVOORTIA TYRANNUS MENHADEN,		-	-	-	-	-	-	-	-	-
65	WHOLE OR CUTTINGS, COOKED MECH EXTD		-	-	-	-	-	-	-	-	-
66	DEHY GRND, (5)		-	-	-	-	-	-	-	-	-
67	FISH MEAL, SARDINE		-	-	-	-	-	-	-	-	-
68	*SEE CLUPEA SPP, SARDINOPS SPP		-	-	-	-	-	-	-	-	-
69	SARDINE, WHOLE OR CUTTINGS, COOKED		-	-	-	-	-	-	-	-	-
70	MECH EXTD DEHY GRND, (5)		-	-	-	-	-	-	-	-	-
71	FISH MEAL (CFA)		-	-	-	-	-	-	-	-	-
72	*SEE FISH, WHOLE OR CUTTINGS, COOKED		-	-	-	-	-	-	-	-	-
73	MECH EXTD DEHY GRND, (5)		-	-	-	-	-	-	-	-	-
74	GALACTIA JUSSIEVANA, MILKPEA, JUSSIEVANA		-	-	-	-	-	-	-	-	-
75	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-496	30.	1.6	10.0	0.6	5.4	0.83*	0.83*	-	-
76			100.0	5.4	33.3	2.1	17.9	2.75*	2.76*	-	-
77	GALLUS DOMESTICUS, CHICKEN		-	-	-	-	-	-	-	-	-
78	*LITTER, (5)	5-13-518	90.	33.0	10.3	1.9	20.1	0.46*	1.39*	-	-
79			100.0	36.6	11.5	2.2	22.3	0.51*	1.54*	-	-
80	GARBAGE		-	-	-	-	-	-	-	-	-
81	*COOKED DEHY, HIGH FAT, (4)	4-07-863	96.	12.9	20.0	23.7	17.5	-	3.77*	-	-
82			100.0	13.5	20.9	24.7	18.2	-	3.93*	-	-
83	GARBANZOS		-	-	-	-	-	-	-	-	-
84	*SEE CICER ARIETINUM GRAM, SEEDS, (5)		-	-	-	-	-	-	-	-	-
85	GLIRICIDIA SEPIUM, SHAD, NICARAGUAN		-	-	-	-	-	-	-	-	-
86	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-493	26.	3.5	5.8	0.7	5.2	0.72*	0.74*	-	-
87			100.0	13.3	20.8	2.5	19.9	2.74*	2.81*	-	-
88	*STEMS, FRESH, (2)	2-11-662	19.	1.6	5.8	0.3	2.8	0.51*	0.51*	-	-
89			100.0	8.2	30.5	1.4	14.5	2.70*	2.66*	-	-
90	GLYCINE MAX, SOYBEAN		-	-	-	-	-	-	-	-	-
91	*HAY, S-C, (1)	1-04-558	89.	7.6	28.2	2.7	14.2	2.22*	2.20*	-	-
92			100.0	8.6	31.8	3.0	15.9	2.49*	2.47*	-	-
93	*HULLS, (1)	1-04-560	92.	4.8	33.3	2.6	12.3	2.27*	2.78*	-	-
94	SOYBEAN HULLS (AAFCO)		100.0	5.2	36.4	2.8	13.5	2.48*	3.04*	-	-
95	SOYBRAN FLAKES		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	55.5*	52.7*	-	0.64	-	-	-	0.32	-	-	-	31.5	-	-	-	-	-	-	-
02	57.8*	55.0*	-	0.67	-	-	-	0.33	-	-	-	32.8	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	0.23	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	1.09	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	65.5*	62.3	68.4	0.08	0.022	9.5	33.8	0.32	0.40	8.8	440.	19.2	12.3	-	5.5	0.20	0.62	0.20	0.19
08	74.5*	70.9	77.8	0.10	0.025	10.8	38.5	0.37	0.46	10.1	501.	21.9	14.0	-	6.3	0.23	0.70	0.23	0.22
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	14.3*	14.2*	-	0.07	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
22	60.4*	60.4*	-	0.28	-	-	-	0.26	-	-	-	-	-	-	-	-	-	-	-
23	18.9*	19.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	53.7*	54.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	50.3*	57.9*	-	0.25	0.090	4.3	103.5	0.09	-	31.7	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	0.20	0.153	2.4	58.7	0.04	-	6.0	-	-	-	-	-	-	-	-	-
30	27.5*	30.0*	-	0.27	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
31	50.6*	55.2*	-	0.50	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	11.1*	11.4*	-	0.09	-	1.9	14.9	0.07	0.50	-	-	-	-	-	-	-	-	-	-
34	61.9*	63.4*	-	0.52	-	10.6	83.1	0.41	2.77	-	-	-	-	-	-	-	-	-	-
35	11.6*	11.2*	-	0.10	-	1.8	12.2	0.05	0.45	-	-	-	-	-	-	-	-	-	-
36	64.0*	61.8*	-	0.53	-	10.0	67.1	0.28	2.50	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	42.7*	54.9*	-	0.13	0.235	2.1	82.5	0.03	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	26.8*	25.9*	-	0.19	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
42	59.8*	57.9*	-	0.42	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	42.5*	43.6	0.30	-	44.9	14.4	0.76	1.74	38.0	3518.	169.1	35.5	-	14.6	0.52	1.73	0.71	0.31
45	-	84.0*	86.3	0.59	-	88.8	28.4	1.51	3.43	75.1	6955.	334.4	70.2	-	28.8	1.03	3.42	1.40	0.61
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	67.8*	56.9*	-	5.84	-	-	-	2.88	0.56	-	-	-	-	-	-	2.66	4.00	0.76	0.60
48	73.9*	62.0*	-	6.37	-	-	-	3.14	0.61	-	-	-	-	-	-	2.90	4.36	0.83	0.66
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	3.54	-	-	-	2.83	-	-	-	-	-	-	-	0.70	4.61	1.59	0.42
51	-	-	-	3.87	-	-	-	3.09	-	-	-	-	-	-	-	0.76	5.03	1.74	0.46
52	-	65.8*	-	4.05	-	-	-	2.86	-	-	-	-	-	-	-	0.71	4.66	1.62	0.42
53	-	71.9*	-	4.42	-	-	-	3.13	-	-	-	-	-	-	-	0.78	5.09	1.77	0.45
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	18.7*	18.8*	-	0.08	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
76	62.5*	62.6*	-	0.25	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	10.5*	31.5*	-	4.50	-	-	-	2.72	-	-	-	-	-	-	-	-	-	-	-
79	11.6*	35.0*	-	5.00	-	-	-	3.02	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	85.5*	-	-	-	-	-	0.33	0.62	-	-	-	-	-	-	-	-	-	-
82	-	89.2*	-	-	-	-	-	0.34	0.65	-	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	16.4*	16.8*	-	0.64	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
87	62.2*	63.7*	-	2.45	-	-	-	0.25	-	-	-	-	-	-	-	-	-	-	-
88	11.7*	11.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	61.1*	60.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	50.3*	49.8*	-	1.18	-	-	-	0.29	-	-	-	-	-	-	-	-	-	-	-
92	56.6*	56.0*	-	1.33	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
93	51.6*	63.2	-	0.46	-	-	5.8	0.21	-	-	287.	-	-	-	-	-	-	-	-
94	56.3*	69.0	-	0.50	-	-	6.3	0.23	-	-	313.	-	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free) Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	*AERIAL PART, FRESH, (2)	2-04-574	27.	2.3	6.9	0.9	3.9	0.83*	0.76*	-	-
02			100.0	8.5	25.5	3.3	14.4	3.07*	2.83*	-	-
03	*FLOUR, SOLV EXTD GRND FINE	5-04-593	90.	8.2	3.7	1.8	50.7	3.14*	3.04*	-	-
04	SIFTED, MX 3% FIBER, (5)		100.0	9.1	4.1	2.0	56.3	3.49*	3.37*	-	-
05	SOLVENT EXTRACTED SOY FLOUR (AAFCO)		-	-	-	-	-	-	-	-	-
06	SOLVENT EXTRACTED SOY GRITS (AAFCO)		-	-	-	-	-	-	-	-	-
07	*SEEDS, (5)	5-04-610	88.	5.1	5.5	22.3	35.6	-	3.99*	-	-
08			100.0	5.8	6.2	25.3	40.5	-	4.54*	-	-
09	*SEEDS, MECH EXTD GRND, MX 7% FIBER, (5)	5-04-600	91.	6.5	5.5	4.1	47.7	3.35*	3.36*	3555.*	2441.
10	SOYBEAN MEAL, MECHANICAL EXTRACTED (AAFCO)		100.0	7.1	6.1	4.5	52.6	3.69*	3.70*	3914.*	2688.
11	SOYBEAN MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
12	SOYBEAN MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
13	SOYBEAN OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
14	SOYBEAN OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
15	*SEEDS, MECH EXTD GRND CAKED, (5)	5-04-598	85.	6.2	5.7	3.9	41.0	2.97*	3.07*	-	-
16	SOYBEAN CAKE (CFA)		100.0	7.4	6.7	4.6	48.4	3.50*	3.63*	-	-
17	*SEEDS, PREPRESSED SOLV EXTD GRND CAKED, (5)	5-17-601	91.	6.1	6.4	3.5	48.7	3.14*	3.27*	-	-
18			100.0	6.8	7.1	3.9	53.7	3.46*	3.60*	"	-
19	*SEEDS, SOLV EXTD GRND, MX 7% FIBER, (5)	5-04-604	90.	6.0	4.9	1.0	45.0	3.28*	3.54*	3372.*	2250.
20	SOYBEAN MEAL, SOLVENT EXTRACTED (AAFCO)		100.0	6.6	5.5	1.1	49.9	3.64*	3.93*	3746.*	2500.
21	SOYBEAN MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
22	SOYBEAN OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
23	*SEEDS, SOLV EXTD GRND CAKED, (5)	5-10-290	89.	7.0	4.7	1.1	47.9	3.12*	3.01*	-	-
24			100.0	7.9	5.3	1.2	54.2	3.53*	3.40*	-	-
25	*SEEDS WO HULLS, SOLV EXTD GRND,	5-04-612	90.	6.2	3.8	0.9	49.6	-	3.45*	3962.	2441.
26	MX 3% FIBER, (5)		100.0	6.9	4.2	1.0	54.9	-	3.82*	4390.	2705.
27	SOYBEAN MEAL, DEHULLED, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
28	(AAFCO)		-	-	-	-	-	-	-	-	-
29	SOYBEAN OIL MEAL, DEHULLED, SOLVENT		-	-	-	-	-	-	-	-	-
30	EXTRACTED		-	-	-	-	-	-	-	-	-
31	GLYCINE WIGHTII, SOYBEAN, PERENNIAL		-	-	-	-	-	-	-	-	-
32	*AERIAL PART, FRESH, (2)	2-11-570	25.	2.5	8.1	0.7	4.7	0.64*	0.67*	-	-
33			100.0	10.0	32.9	2.9	19.3	2.59*	2.74*	-	-
34	*AERIAL PART, FRESH, LATE BLOOM, (2)	2-15-422	21.	2.1	7.1	0.3	4.4	-	0.55*	-	-
35			100.0	9.9	34.3	1.3	21.0	-	2.64*	-	-
36	GOLDENIA SPP, GOLDENIA		-	-	-	-	-	-	-	-	-
37	*BROWSE, FRESH, (2)	2-13-649	-	-	-	-	-	-	-	-	-
38			100.0	18.4	11.3	1.4	12.1	2.86*	2.98*	-	-
39	GOSSYPIUM BARBADENSE, COTTON, SEAISLAND		-	-	-	-	-	-	-	-	-
40	*SEEDS W SOME HULLS, MECH EXTD GRND, (5)	5-10-239	93.	6.7	12.5	5.5	37.1	2.95*	3.25*	-	-
41			100.0	7.1	13.4	5.9	39.8	3.17*	3.48*	-	-
42	GOSSYPIUM HERBACEUM, COTTON, LEVANT		-	-	-	-	-	-	-	-	-
43	*SEEDS W SOME	5-11-561	90.	6.0	10.0	7.0	35.6	3.03*	3.32*	-	-
44	HULLS, MECH EXTD GRND CAKED, (5)		100.0	6.7	11.2	7.8	39.6	3.38*	3.70*	-	-
45	GOSSYPIUM HIRSUTUM, COTTON, UPLAND		-	-	-	-	-	-	-	-	-
46	*HULLS, GRND, (1)	1-11-592	87.	2.7	44.9	0.9	6.1	2.06*	2.06*	-	-
47			100.0	3.1	51.6	1.0	7.0	2.37*	2.36*	-	-
48	*SEEDS W ADDED HULLS, SOLV EXTD GRND, (5)	5-13-695	-	-	-	-	-	-	-	-	-
49			100.0	6.7	19.6	2.8	40.6	2.60*	3.08*	-	-
50	*SEEDS W SOME HULLS, SOLV EXTD GRND, (5)	5-10-107	91.	7.3	8.7	1.5	45.4	2.82*	3.02*	-	-
51			100.0	8.1	9.6	1.7	50.0	3.11*	3.32*	-	-
52	GOSSYPIUM SPP, COTTON		-	-	-	-	-	-	-	-	-
53	*HULLS, (1)	1-01-599	89.	4.9	39.4	2.1	5.7	1.69*	2.08*	-	-
54	COTTONSEED HULLS (AAFCO)		100.0	5.5	44.1	2.3	6.4	1.89*	2.33*	-	-
55	*STEMS, S-C, POST RIPE, (1)	1-13-694	-	-	-	-	-	-	-	-	-
56			100.0	8.1	64.9	0.9	5.3	-	-	-	-
57	*SEEDS, GRND, (5)	5-01-608	92.	3.5	18.8	22.0	21.0	3.09*	3.91*	-	-
58	COTTONSEED, WHOLE, GROUND		100.0	3.8	20.5	24.1	22.9	3.38*	4.27*	-	-
59	*SEEDS WO HULLS, MECH EXTD GRND, (5)	5-13-544	90.	4.7	6.5	3.1	45.0	3.28*	3.34*	-	-
60			100.0	5.2	7.2	3.4	49.8	3.63*	3.69*	-	-
61	*SEEDS W SOME HULLS, MECH EXTD	5-01-617	93.	6.1	10.8	4.3	40.9	3.00*	3.06*	-	2322.
62	GRND, MN 41% PROTEIN MX 14% FIBER MN		100.0	6.6	11.6	4.7	44.1	3.23*	3.30*	-	2504.
63	2% FAT, (5)		-	-	-	-	-	-	-	-	-
64	COTTONSEED MEAL, 41% PROTEIN		-	-	-	-	-	-	-	-	-
65	*SEEDS W SOME HULLS, PREPRESSED	5-07-872	92.	6.1	12.5	3.3	39.8	2.81*	3.13*	2757.*	2458.
66	SOLV EXTD GRND, 41% PROTEIN, (5)		100.0	6.6	13.6	3.6	43.2	3.05*	3.40*	2992.*	2667.
67	COTTONSEED MEAL, PRE-PRESS SOLVENT		-	-	-	-	-	-	-	-	-
68	EXTRACTED,		-	-	-	-	-	-	-	-	-
69	*SEEDS W SOME HULLS, SOLV EXTD	5-01-621	92.	10.4	13.3	1.2	41.6	2.13*	2.79*	2762.*	2093.
70	GRND, MN 41% PROTEIN MX 14% FIBER MN		100.0	11.4	14.5	1.3	45.4	2.33*	3.05*	3017.*	2286.
71	0.5% FAT, (5)		-	-	-	-	-	-	-	-	-
72	COTTONSEED MEAL, SOLVENT EXTRACTED, 41%		-	-	-	-	-	-	-	-	-
73	PROTEIN		-	-	-	-	-	-	-	-	-
74	GRAINS		-	-	-	-	-	-	-	-	-
75	*BREWERS GRAINS, DEHY, MX 3% DRIED	5-02-141	92.	3.8	15.2	6.8	25.3	2.68*	2.81*	1780.*	2080.
76	SPENT HOPS, (5)		100.0	4.2	16.7	7.5	27.6	2.93*	3.07*	1945.*	2273.
77	BREWERS DRIED GRAINS (CFA)		-	-	-	-	-	-	-	-	-
78	BREWERS DRIED GRAINS (AAFCO)		-	-	-	-	-	-	-	-	-
79	*DISTILLERS GRAINS, DEHY, (5)	5-02-144	93.	1.6	12.8	7.4	27.4	3.21*	3.35*	-	-
80			100.0	1.7	13.8	8.0	29.6	3.46*	3.62*	-	-
81	GRAM		-	-	-	-	-	-	-	-	-
82	*SEE CICER ARIETINUM GRAM, SEEDS, (5)		-	-	-	-	-	-	-	-	-
83	GRASS-LEGUME		-	-	-	-	-	-	-	-	-
84	GROUND CORN COB (AAFCO)		-	-	-	-	-	-	-	-	-
85	*SEE ZEA MAYS, COBS, GRND, (1)		-	-	-	-	-	-	-	-	-
86	GROUND EAR CORN (AAFCO)		-	-	-	-	-	-	-	-	-
87	*SEE ZEA MAYS, EARS, GRND, (4)		-	-	-	-	-	-	-	-	-
88	GROUNDNUT OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
89	*SEE ARACHIS HYPOGAEA, KERNELS, SOLV		-	-	-	-	-	-	-	-	-
90	EXTD GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
91	GROUND PADDY RICE (AAFCO)		-	-	-	-	-	-	-	-	-
92	*SEE ORYZA SATIVA, GRAIN W HULLS,		-	-	-	-	-	-	-	-	-
93	GRND, (4)		-	-	-	-	-	-	-	-	-
94	GROUND ROUGH RICE (AAFCO)		-	-	-	-	-	-	-	-	-
95	*SEE ORYZA SATIVA, GRAIN W HULLS,		-	-	-	-	-	-	-	-	-
96	GRND, (4)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	18.7*	17.3*	-	0.44	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
02	69.7*	64.2*	-	1.63	-	-	-	0.25	-	-	-	-	-	-	-	-	-	-	-
03	71.3*	68.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	79.2*	76.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	90.6*	-	0.27	-	18.9	29.9	0.49	1.22	40.0	-	18.1	-	-	2.6	-	1.90	0.39	-
08	-	103.0*	-	0.31	-	21.5	34.0	0.56	1.39	45.5	-	20.5	-	-	3.0	-	2.16	0.45	-
09	76.1	76.1	80.6	0.27	0.156	24.5	30.9	0.61	1.84	60.2	2716.	32.5	14.9	-	3.7	0.63	2.79	0.67	0.60
10	83.7	83.8	88.8	0.30	0.172	26.9	34.0	0.67	2.02	66.3	2990.	35.8	16.4	-	4.1	0.69	3.07	0.74	0.67
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	67.3*	69.7*	-	0.30	-	15.2	35.6	0.54	1.54	47.4	-	16.4	-	-	3.7	-	2.35	0.48	-
16	79.5*	82.3*	-	0.35	-	18.0	42.0	0.64	1.82	56.0	-	19.3	-	-	4.4	-	2.78	0.57	-
17	71.1*	74.1*	-	0.36	-	-	-	0.78	-	-	-	-	-	-	-	-	-	-	-
18	78.4*	81.7*	-	0.40	-	-	-	0.86	-	-	-	-	-	-	-	-	-	-	-
19	74.3	80.2	76.5	0.35	0.093	21.7	29.6	0.65	2.02	27.3	2819.	30.0	16.0	-	2.9	0.70	2.94	0.59	0.63
20	82.6	89.1	85.0	0.39	0.104	24.1	32.8	0.72	2.24	30.3	3132.	33.3	17.8	-	3.2	0.76	3.27	0.66	0.70
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	70.9*	68.2*	-	0.27	-	15.1	39.0	0.98	1.61	50.5	-	-	-	-	-	-	2.51	0.50	-
24	80.0*	77.1*	-	0.31	-	17.0	44.0	1.11	1.82	57.0	-	-	-	-	-	-	2.84	0.65	-
25	-	78.1*	77.8	0.27	-	15.0	43.0	0.62	2.02	45.2	2733.	21.6	15.4	-	2.9	0.80	3.19	0.72	0.67
26	-	86.6*	86.2	0.30	-	16.6	47.7	0.69	2.24	50.1	3028.	23.9	17.0	-	3.2	0.88	3.53	0.80	0.74
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	14.4*	15.2*	-	0.30	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
33	58.8*	62.1*	-	1.23	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-
34	-	12.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	59.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	64.8*	67.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	66.9*	73.7*	-	0.28	-	19.9	23.0	1.45	-	-	-	-	-	-	-	-	-	-	-
41	71.8*	79.0*	-	0.30	-	21.3	24.7	1.55	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	68.8*	75.3*	-	0.13	-	-	-	0.01	-	-	-	2.6	-	-	-	0.02	0.11	0.03	0.03
44	76.7*	83.9*	-	0.15	-	-	-	0.01	-	-	-	2.9	-	-	-	0.02	0.12	0.03	0.03
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	46.8*	46.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.33	0.08	0.08
47	53.7*	53.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.38	0.09	0.09
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	58.9*	69.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	0.69	2.01	0.47	0.40
50	64.0*	68.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.47	0.31	0.27
51	70.4*	75.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.62	0.35	0.30
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	38.4	47.1	-	0.28	-	-	-	0.09	0.86	-	-	-	-	-	3.7	-	-	-	-
54	42.9	52.8	-	0.32	-	-	-	0.10	0.96	-	-	-	-	-	4.1	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08	0.03	-
57	70.1*	88.6*	-	0.14	-	49.4	12.0	0.67	1.10	-	-	-	-	-	-	-	-	-	-
58	76.6*	96.8*	-	0.15	-	54.0	13.1	0.73	1.20	-	-	-	-	-	-	-	-	-	-
59	74.5*	75.7*	-	0.15	-	-	-	0.77	-	-	-	-	-	-	-	0.94	2.04	0.79	0.76
60	82.4*	83.6*	-	0.17	-	-	-	0.86	-	-	-	-	-	-	-	1.04	2.25	0.87	0.84
61	67.9*	69.5*	-	0.20	-	18.6	22.9	1.05	1.18	-	2755.	37.7	13.2	-	5.1	0.85	1.51	0.64	0.54
62	73.2*	74.9*	-	0.22	-	20.1	24.7	1.13	1.28	-	2970.	40.7	14.3	-	5.5	0.91	1.63	0.69	0.59
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	63.8*	71.0*	62.5	0.63	-	18.2	20.5	1.07	1.25	63.9	3006.	41.3	7.2	-	4.1	0.66	1.75	0.53	0.48
66	69.3*	77.0*	67.9	0.69	-	19.8	22.2	1.16	1.36	69.3	3263.	44.8	7.8	-	4.4	0.71	1.90	0.58	0.52
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	48.4*	63.3*	62.7	0.19	-	21.5	19.7	1.11	1.49	-	2788.	43.2	15.0	-	11.1	0.88	1.63	0.62	0.55
70	52.9*	69.2*	68.4	0.20	-	23.4	21.5	1.22	1.63	-	3046.	47.2	16.4	-	12.1	0.96	1.78	0.68	0.60
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	60.8	63.7	40.4	0.30	0.061	21.2	31.5	0.53	0.09	-	1574.	43.5	7.9	-	1.3	0.31	0.98	0.46	0.34
76	66.4	69.6	44.1	0.32	0.067	23.1	34.4	0.57	0.10	-	1721.	47.6	8.6	-	1.5	0.34	1.04	0.51	0.37
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	72.7*	76.0	-	0.10	0.091	45.2	53.6	0.75	0.21	194.4	-	46.8	11.6	-	3.8	-	0.82	0.49	0.22
80	78.6*	82.1	-	0.10	0.099	48.9	57.9	0.81	0.23	210.0	-	50.5	12.5	-	4.1	-	0.89	0.52	0.23
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	HEDYSARUM CORONARIUM, SWEETVETCH, SULLA		-	-	-	-	-	-	-	-	-
02	-AERIAL PART, FRESH, (2)	2-11-552	9.	1.2	2.3	0.2	2.4	-	-	-	-
03			100.0	13.9	26.1	2.0	27.5	-	-	-	-
04	HELIANTHUS ANNUUS, SUNFLOWER, COMMON		-	-	-	-	-	-	-	-	-
05	-BRAN, (1)	1-13-257	-	-	-	-	-	-	-	-	-
06			100.0	4.8	29.8	23.9	26.0	-	-	-	-
07	-SEEDS, (5)	5-10-101	92.	3.0	23.7	33.4	16.5	-	3.93*	-	-
08			100.0	3.3	25.8	36.4	18.1	-	4.29*	-	-
09	-SEEDS, SOLV EXTD GRND, (5)	5-10-700	88.	7.3	14.9	1.2	40.2	2.14*	2.68*	-	-
10			100.0	8.3	17.0	1.4	45.8	2.44*	3.05*	-	-
11	HELIANTHUS SPP, SUNFLOWER		-	-	-	-	-	-	-	-	-
12	-SEEDS NO HULLS, SOLV EXTD GRND, (5)	5-04-739	93.	7.3	12.2	2.7	45.4	2.67*	3.07*	-	1756.
13	SUNFLOWER MEAL (AAFCO)		100.0	7.8	13.1	2.9	48.9	2.88*	3.31*	-	1892.
14	SUNFLOWER OIL MEAL, WITHOUT HULLS, SOLVENT		-	-	-	-	-	-	-	-	-
15	EXTRACTED		-	-	-	-	-	-	-	-	-
16	HIEROCHLOE MEXICANA, SWEETGRASS, MEXICAN		-	-	-	-	-	-	-	-	-
17	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-15-436	25.	2.0	7.2	0.6	2.9	0.69*	0.68*	-	-
18			100.0	7.8	28.8	2.5	11.6	2.75*	2.72*	-	-
19	HOMARUS AMERICANUS, LOBSTER		-	-	-	-	-	-	-	-	-
20	-PROCESS RESIDUE, DEHY GRND, (5)	5-02-635	87.	26.5	14.1	2.7	38.0	0.63*	1.62*	-	-
21			100.0	30.6	16.3	3.2	44.0	0.73*	1.87*	-	-
22	HOMINY FEED (CFA)		-	-	-	-	-	-	-	-	-
23	-SEE ZEA MAYS, GRITS BY-PRODUCT, MN 5%		-	-	-	-	-	-	-	-	-
24	FAT, (4)		-	-	-	-	-	-	-	-	-
25	HOMINY FEED (AAFCO)		-	-	-	-	-	-	-	-	-
26	-SEE ZEA MAYS, GRITS BY-PRODUCT, MN 5%		-	-	-	-	-	-	-	-	-
27	FAT, (4)		-	-	-	-	-	-	-	-	-
28	HORDEUM DISTICHON, BARLEY, 2-ROW		-	-	-	-	-	-	-	-	-
29	-STRAW, S-C, (1)	1-10-229	97.	6.1	45.3	2.6	2.7	2.16*	2.07*	-	-
30			100.0	6.3	46.6	2.7	2.8	2.22*	2.13*	-	-
31	HORDEUM VULGARE, BARLEY		-	-	-	-	-	-	-	-	-
32	-AERIAL PART, FRESH, (2)	2-00-511	29.	2.2	6.3	0.9	3.5	1.03*	0.86*	-	-
33			100.0	7.6	21.5	3.1	11.8	3.51*	2.92*	-	-
34	-AERIAL PART, FRESH, MIDBLOOM, CUT 1, (2)	2-13-659	-	-	-	-	-	-	-	-	-
35			100.0	6.9	15.2	2.2	8.8	3.94*	3.29*	-	-
36	-GRAIN, (4)	4-00-549	90.	2.7	5.6	1.8	10.2	2.97*	3.30*	3305.*	-
37			100.0	3.0	6.3	2.0	11.3	3.31*	3.68*	3686.*	-
38	-GRAIN W HULLS, (4)	4-13-700	89.	3.1	9.8	1.3	10.6	2.75*	3.15*	3054.*	-
39			100.0	3.5	11.1	1.5	12.0	3.09*	3.54*	3437.*	-
40	-MALT SPROUTS W HULLS, DEHY,	5-00-545	92.	6.3	16.2	1.4	25.8	2.57*	2.79*	1544.*	1423.
41	MN 24% PROTEIN, (5)		100.0	6.8	17.5	1.5	28.0	2.78*	3.02*	1672.*	1541.
42	MALT SPROUTS (AAFCO)		-	-	-	-	-	-	-	-	-
43	HUMULUS LUPULUS, HOP, COMMON		-	-	-	-	-	-	-	-	-
44	HYDROLYZED POULTRY FEATHERS (AAFCO)		-	-	-	-	-	-	-	-	-
45	-SEE POULTRY, FEATHERS, HYDROLYZED		-	-	-	-	-	-	-	-	-
46	DEHY GRND, MN 75% OF PROTEIN		-	-	-	-	-	-	-	-	-
47	DIGESTIBLE, (5)		-	-	-	-	-	-	-	-	-
48	HYMENACHNE DONACIFOLIA		-	-	-	-	-	-	-	-	-
49	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-17-549	25.	2.4	10.0	0.3	3.7	0.70*	0.63*	-	-
50			100.0	9.5	40.0	1.3	14.8	2.79*	2.52*	-	-
51	HYPARRHENIA RUFA, JARAGUA		-	-	-	-	-	-	-	-	-
52	-AERIAL PART, FRESH, (2)	2-09-407	32.	4.4	10.6	0.7	1.9	0.70*	0.77*	-	-
53			100.0	13.9	33.3	2.2	6.1	2.20*	2.41*	-	-
54	-AERIAL PART, FRESH, 43 TO 56	2-09-509	26.	3.6	9.3	0.7	1.7	0.52*	0.62*	-	-
55	DAYS' GROWTH, (2)		100.0	13.9	36.0	2.8	6.4	2.03*	2.39*	-	-
56	-AERIAL PART, FRESH, 99 TO	2-13-851	-	-	-	-	-	-	-	-	-
57	112 DAYS' GROWTH, (2)		100.0	-	-	-	5.3	-	-	-	-
58	-AERIAL PART, FRESH, EARLY VEGETATIVE, (2)	2-10-112	27.	3.1	8.2	2.0	1.9	0.69*	-	-	-
59			100.0	11.4	30.7	7.5	7.2	2.56*	-	-	-
60	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-10-216	28.	4.7	14.0	0.8	3.6	-	-	-	-
61			100.0	16.8	50.3	2.8	12.8	-	-	-	-
62	-AERIAL PART, FRESH, POST RIPE, (2)	2-10-124	52.	6.8	19.7	0.6	1.5	1.17*	1.16*	-	-
63			100.0	13.2	38.2	1.2	3.0	2.26*	2.23*	-	-
64	INDIGOFERA ENDOCAPHYLLA, INDIGO, ENDOCAPHYLLA		-	-	-	-	-	-	-	-	-
65	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-499	23.	2.4	8.1	0.4	4.1	0.64*	0.60*	-	-
66			100.0	10.5	35.4	1.6	17.9	2.78*	2.59*	-	-
67	INDIGOFERA SUBULATA, INDIGO, SUBULATA		-	-	-	-	-	-	-	-	-
68	-AERIAL PART, FRESH, MILK STAGE, (2)	2-17-419	29.	3.2	7.2	0.5	7.2	-	0.81*	-	-
69			100.0	10.9	24.5	1.8	24.7	-	2.79*	-	-
70	IPOMOEA BATATAS, SWEETPOTATO		-	-	-	-	-	-	-	-	-
71	-AERIAL PART, FRESH, (2)	2-04-784	16.	1.7	3.2	0.7	2.3	0.57*	0.41*	-	-
72			100.0	10.7	20.4	4.2	14.6	3.59*	2.59*	-	-
73	-AERIAL PART, FRESH, 197 TO	2-11-553	17.	3.4	3.5	0.6	2.2	0.42*	0.49*	-	-
74	210 DAYS' GROWTH, (2)		100.0	19.8	19.9	3.2	12.6	2.44*	2.82*	-	-
75	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-423	15.	1.9	3.0	0.3	2.4	0.43*	0.43*	-	-
76			100.0	12.7	20.0	2.3	15.9	2.89*	2.84*	-	-
77	-ROOTS, FRESH, (4)	4-04-788	32.	1.1	1.2	0.5	1.2	-	1.20*	1236.*	-
78			100.0	3.4	3.8	1.6	3.9	-	3.75*	3864.*	-
79	IPOMOEA SAGITTATA, MORNINGGLORY, SAGITTATA		-	-	-	-	-	-	-	-	-
80	-AERIAL PART, DEHY, (1)	1-11-547	90.	10.1	22.4	3.7	17.2	2.40*	2.36*	-	-
81			100.0	11.2	24.9	4.1	19.1	2.67*	2.62*	-	-
82	ISOCARPHA OPPOSITIFOLIA		-	-	-	-	-	-	-	-	-
83	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-550	21.	2.5	6.[illegible]	0.7	3.9	0.53*	0.57*	-	-
84			100.0	11.8	31.1	3.2	18.[illegible]	2.50*	2.72*	-	-
85	IXOPHORUS UNISETUS, HONDURAS		-	-	-	-	-	-	-	-	-
86	-AERIAL PART, FRESH, 43 TO	2-09-577	18.	2.6	5.3	0.5	1.5	0.42*	0.45*	-	-
87	56 DAYS' GROWTH, (2)		100.0	14.3	29.5	2.9	8.6	2.37*	2.51*	-	-
88	KRAMERIA		-	-	-	-	-	-	-	-	-
89	-AERIAL PART, FRESH, EARLY VEGETATIVE, (2)	2-10-113	21.	2.0	6.4	0.5	2.0	0.52*	0.54*	-	-
90	RATANY		100.0	9.5	31.1	2.4	9.8	2.52*	2.61*	-	-
91	LACTALBUMIN, DRIED		-	-	-	-	-	-	-	-	-
92	-SEE BOS SPP, WHEY ALBUMIN, HEAT AND		-	-	-	-	-	-	-	-	-
93	ACID PRECIPITATED DEHY, MN 75%		-	-	-	-	-	-	-	-	-
94	PROTEIN, (5)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	0.16	-	-	-	0.08	0.11	-	-	-	-	-	-	-	-	-	-
03	-	-	-	1.83	-	-	-	0.92	1.25	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	0.07	-	-	-	0.75	1.90	-	-	-	-	-	-	-	-	-	-
07	-	89.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	0.42	0.26	0.14
08	-	97.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	0.46	0.28	0.15
09	48.6*	60.7*	-	0.43	-	-	-	1.20	-	-	-	-	-	-	-	0.47	0.74	0.69	0.37
10	55.4*	69.2*	-	0.49	-	-	-	1.37	-	-	-	-	-	-	-	0.53	0.84	0.79	0.42
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	60.6*	69.6*	-	0.46	-	-	23.0	0.75	1.00	-	2894.	219.5	12.4	-	4.7	0.71	2.20	1.53	0.71
13	65.3*	75.0*	-	0.50	-	-	24.7	0.81	1.08	-	3118.	236.6	13.4	-	5.1	0.76	2.38	1.65	0.76
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	15.6*	15.4*	-	0.04	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
18	62.4*	61.8*	-	0.14	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	14.3*	36.8*	-	12.65	-	-	-	1.35	-	-	-	-	-	-	-	-	1.58	0.53	-
21	16.6*	42.5*	-	14.62	-	-	-	1.56	-	-	-	-	-	-	-	-	1.83	0.61	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	49.1*	46.9*	-	0.29	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
30	50.4*	48.3*	-	0.30	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	23.3*	19.4	-	0.11	-	0.7	9.2	0.07	-	6.3	-	-	-	-	-	-	-	-	-
33	79.5*	66.3	-	0.36	-	2.2	31.5	0.24	-	21.4	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	89.4*	74.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	67.3*	74.8*	75.0*	0.08	-	-	-	0.35	-	-	-	71.3	-	-	1.6	-	-	-	-
37	75.0*	83.4*	83.6*	0.09	-	-	-	0.39	-	-	-	79.5	-	-	1.7	-	-	-	-
38	62.3*	71.4*	69.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	0.40	0.07	0.11
39	70.1*	80.4*	78.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	0.45	0.08	0.12
40	58.2*	63.3	35.0	0.24	-	-	31.6	0.76	0.21	-	1585.	54.8	8.6	-	8.6	0.24	1.27	0.33	0.41
41	63.0*	68.5	37.9	0.26	-	-	34.2	0.83	0.23	-	1716.	59.4	9.3	-	9.3	0.26	1.37	0.36	0.44
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	15.8*	14.3*	-	0.09	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
50	63.4*	57.1*	-	0.36	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	15.9*	17.4*	-	0.13	0.067	3.9	63.4	0.04	0.29	38.2	-	-	-	-	-	-	-	-	-
53	49.9*	54.6*	-	0.41	0.211	12.4	199.0	0.13	0.91	120.0	-	-	-	-	-	-	-	-	-
54	11.9*	14.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	46.1*	54.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	15.6	-	-	0.14	0.070	1.5	52.4	0.04	0.31	3.2	-	-	-	-	-	-	-	-	-
59	58.1	-	-	0.52	0.261	5.5	195.5	0.14	1.15	11.9	-	-	-	-	-	-	-	-	-
60	-	-	-	0.27	-	7.6	41.3	0.09	0.38	15.1	-	-	-	-	-	-	-	-	-
61	-	-	-	0.99	-	27.5	148.5	0.32	1.38	54.5	-	-	-	-	-	-	-	-	-
62	26.5*	26.2*	-	0.18	-	-	-	0.03	0.24	-	-	-	-	-	-	-	-	-	-
63	51.3*	50.6*	-	0.35	-	-	-	0.05	0.46	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	14.5*	13.5*	-	0.44	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
66	63.1*	58.8*	-	1.91	-	-	-	0.26	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	-	18.5*	-	0.63	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
69	-	63.3*	-	2.17	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	12.9*	9.3	-	0.41	-	-	-	0.11	0.09	-	-	-	-	-	-	-	-	-	-
72	81.5*	58.7	-	2.58	-	-	-	0.70	0.56	-	-	-	-	-	-	-	-	-	-
73	9.6*	11.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	55.4*	64.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	9.8*	9.7*	-	0.22	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
76	65.6*	64.5*	-	1.44	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
77	-	27.2*	28.0*	0.09	-	-	-	0.07	-	-	-	7.5	-	-	-	-	-	-	-
78	-	85.1*	87.6*	0.28	-	-	-	0.23	-	-	-	23.5	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	54.4*	53.5*	-	0.69	-	-	-	0.59	-	-	-	-	-	-	-	-	-	-	-
81	60.5*	59.5*	-	0.77	-	-	-	0.66	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	12.0*	13.0*	-	0.35	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
84	56.7*	61.6*	-	1.68	-	-	-	0.24	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	9.6*	10.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	53.8*	57.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	11.8*	12.2*	-	0.08	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
90	57.0*	59.1*	-	0.40	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	LACTUCA SATIVA, LETTUCE		-	-	-	-	-	-	-	-	-
02	*AERIAL PART, FRESH, (2)	2-02-624	9.	1.0	1.1	0.2	1.2	0.31*	0.28*	-	-
03			100.0	11.5	12.6	2.3	13.8	3.57*	3.20*	-	-
04	LATHYRUS SPP, PEAVINE		-	-	-	-	-	-	-	-	-
05	*AERIAL PART, FRESH, (2)	2-03-669	-	-	-	-	-	-	-	-	-
06			100.0	6.9	19.8	4.4	25.5	-	3.23*	-	-
07	LEGUME		-	-	-	-	-	-	-	-	-
08	*LEAVES, FRESH, (2)	2-17-617	-	-	-	-	-	-	-	-	-
09			100.0	9.0	33.3	2.1	13.6	2.55*	2.62*	-	-
10	LEPTOGLOSSIS LEPTOCARPA		-	-	-	-	-	-	-	-	-
11	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-438	25.	1.8	7.5	0.8	5.1	0.71*	0.72*	-	-
12			100.0	7.2	29.8	3.2	20.3	2.85*	2.87*	-	-
13	LEUCAENA LEUCOCEPHALA, LEADTREE, LEUCOCEPHALA		-	-	-	-	-	-	-	-	-
14	*AERIAL PART, FRESH, (2)	2-11-439	27.	2.1	5.0	1.6	6.0	-	0.91*	-	-
15			100.0	7.6	18.2	5.8	22.1	-	3.32*	-	-
16	LIMESTONE		-	-	-	-	-	-	-	-	-
17	*GRND, MN 33% CALCIUM, (6)	6-02-632	97.	92.2	-	-	-	-	-	-	-
18	LIMESTONE, GROUND (AAFCO)		100.0	94.6	-	-	-	-	-	-	-
19	LINSEED MEAL, MECHANICAL EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
20	*SEE LINUM USITATISSIMUM COMMON,		-	-	-	-	-	-	-	-	-
21	SEEDS, MECH EXTD GRND, MX 10% FIBER,		-	-	-	-	-	-	-	-	-
22	(5)		-	-	-	-	-	-	-	-	-
23	LINSEED MEAL, SOLVENT EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
24	*SEE LINUM USITATISSIMUM COMMON,		-	-	-	-	-	-	-	-	-
25	SEEDS, SOLV EXTD GRND, MX 10% FIBER,		-	-	-	-	-	-	-	-	-
26	(5)		-	-	-	-	-	-	-	-	-
27	LINSEED MEAL (CFA)		-	-	-	-	-	-	-	-	-
28	*SEE LINUM USITATISSIMUM COMMON,		-	-	-	-	-	-	-	-	-
29	SEEDS, MECH EXTD GRND, MX 10% FIBER,		-	-	-	-	-	-	-	-	-
30	(5)		-	-	-	-	-	-	-	-	-
31	LINSEED OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
32	*SEE LINUM USITATISSIMUM COMMON,		-	-	-	-	-	-	-	-	-
33	SEEDS, MECH EXTD GRND, MX 10% FIBER,		-	-	-	-	-	-	-	-	-
34	(5)		-	-	-	-	-	-	-	-	-
35	LINSEED OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
36	*SEE LINUM USITATISSIMUM COMMON,		-	-	-	-	-	-	-	-	-
37	SEEDS, MECH EXTD GRND, MX 10% FIBER,		-	-	-	-	-	-	-	-	-
38	(5)		-	-	-	-	-	-	-	-	-
39	LINSEED OIL MEAL, OLD PROCESS		-	-	-	-	-	-	-	-	-
40	*SEE LINUM USITATISSIMUM COMMON,		-	-	-	-	-	-	-	-	-
41	SEEDS, MECH EXTD GRND, MX 10% FIBER,		-	-	-	-	-	-	-	-	-
42	(5)		-	-	-	-	-	-	-	-	-
43	LINSEED OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
44	*SEE LINUM USITATISSIMUM COMMON,		-	-	-	-	-	-	-	-	-
45	SEEDS, SOLV EXTD GRND, MX 10% FIBER,		-	-	-	-	-	-	-	-	-
46	(5)		-	-	-	-	-	-	-	-	-
47	LINUM USITATISSIMUM, FLAX, COMMON		-	-	-	-	-	-	-	-	-
48	*SEEDS, MECH EXTD GRND, MX 10% FIBER, (5)	5-02-045	91.	5.6	8.7	4.3	33.9	3.19*	3.28*	3040.*	1524.
49	LINSEED MEAL (CFA)		100.0	6.2	9.5	4.8	37.3	3.51*	3.61*	3345.*	1677.
50	LINSEED MEAL, MECHANICAL EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
51	LINSEED OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
52	LINSEED OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
53	LINSEED OIL MEAL, OLD PROCESS		-	-	-	-	-	-	-	-	-
54	*SEEDS, SOLV EXTD GRND, MX 10% FIBER, (5)	5-02-048	90.	5.6	12.0	2.3	34.5	2.82*	3.11*	2845.*	1427.
55	SOLVENT EXTRACTED LINSEED MEAL (CFA)		100.0	6.2	13.3	2.6	38.1	3.12*	3.44*	3146.*	1578.
56	LINSEED OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
57	LINSEED MEAL, SOLVENT EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
58	LIPPIA SPP, LIPPIA		-	-	-	-	-	-	-	-	-
59	LIVER MEAL		-	-	-	-	-	-	-	-	-
60	*SEE ANIMAL, LIVERS, DEHY GRND, (5)		-	-	-	-	-	-	-	-	-
61	LOLIUM MULTIFLORUM, RYEGRASS, ITALIAN TETRONE		-	-	-	-	-	-	-	-	-
62	*AERIAL PART, FRESH, CUT 1, (2)	2-10-524	14.	1.4	3.6	0.5	2.9	0.40*	0.41*	-	-
63			100.0	9.7	25.8	3.8	20.8	2.89*	2.91*	-	-
64	LOLIUM MULTIFLORUM, RYEGRASS, ITALIAN		-	-	-	-	-	-	-	-	-
65	WESTERWOLTH		-	-	-	-	-	-	-	-	-
66	*AERIAL PART, FRESH, LATE VEGETATIVE, CUT 1,	2-10-537	16.	1.9	4.1	0.7	3.0	0.45*	0.46*	-	-
67	(2)		100.0	11.7	25.7	4.5	18.5	2.83*	2.86*	-	-
68	*AERIAL PART, FRESH, CUT 1, (2)	2-10-533	14.	1.7	4.0	0.6	2.4	0.37*	0.39*	-	-
69			100.0	12.2	28.3	4.1	16.9	2.60*	2.76*	-	-
70	LOLIUM MULTIFLORUM, RYEGRASS, ITALIAN		-	-	-	-	-	-	-	-	-
71	*AERIAL PART, FRESH, (2)	2-04-073	23.	2.3	3.7	0.9	2.8	1.00*	0.71*	-	-
72			100.0	9.9	16.0	3.9	11.9	4.29*	3.07*	-	-
73	LOLIUM PERENNE, RYEGRASS, PERENNIAL		-	-	-	-	-	-	-	-	-
74	*HAY, S-C, MATURE, CUT 5, (1)	1-15-425	97.	9.1	33.1	1.8	9.1	2.22*	2.20*	-	-
75			100.0	9.4	34.2	1.9	9.4	2.30*	2.28*	-	-
76	*AERIAL PART, FRESH,	2-10-200	-	-	-	-	-	-	-	-	-
77	15 TO 28 DAYS' GROWTH, (2)		100.0	20.3	22.1	5.0	13.8	2.35*	2.59*	-	-
78	*AERIAL PART, FRESH,	2-10-201	-	-	-	-	-	-	-	-	-
79	29 TO 42 DAYS' GROWTH, (2)		100.0	16.0	22.7	4.6	12.8	2.89*	2.67*	-	-
80	*AERIAL PART, FRESH,	2-10-730	-	-	-	-	-	-	-	-	-
81	43 TO 56 DAYS' GROWTH, (2)		100.0	3.1	-	-	8.0	-	-	-	-
82	*AERIAL PART, FRESH, CUT 1, (2)	2-10-525	17.	1.7	4.8	0.8	3.3	0.46*	0.49*	-	-
83			100.0	10.1	28.8	4.6	19.7	2.72*	2.91*	-	-
84	LOTUS ULIGINOSUS, TREFOIL, BIG		-	-	-	-	-	-	-	-	-
85	*HAY, S-C, (1)	1-08-545	91.	9.4	21.8	3.2	15.6	2.53*	2.42*	-	-
86			100.0	10.3	23.9	3.5	17.1	2.76*	2.65*	-	-
87	LUPINUS MUTABILIS, LUPINE, SOUTH AMERICAN		-	-	-	-	-	-	-	-	-
88	*SEEDS, COOKED, (5)	5-13-221	63.	1.5	3.6	13.2	31.8	2.71*	2.93*	-	-
89			100.0	2.5	5.7	20.9	50.6	4.31*	4.66*	-	-
90	LYCOPERSICON ESCULENTUM, TOMATO		-	-	-	-	-	-	-	-	-
91	*FRUIT, FRESH, (4)	4-05-040	6.	0.6	0.8	0.3	1.0	0.16*	0.19*	182.*	-
92			100.0	8.8	13.6	5.6	15.2	2.62*	3.03*	2911.*	-
93	MALT SPROUTS (AAFCO)		-	-	-	-	-	-	-	-	-
94	*SEE HORDEUM VULGARE, MALT SPROUTS W		-	-	-	-	-	-	-	-	-
95	HULLS, DEHY, MN 24% PROTEIN, (5)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	7.0*	6.3*	-	0.05	-	-	-	0.04	-	-	-	4.8	-	-	0.5	-	-	-	-
03	80.9*	72.6*	-	0.57	-	-	-	0.46	-	-	-	55.2	-	-	5.7	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	73.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	57.9*	59.4*	-	1.98	-	-	-	0.19	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	16.2*	16.2*	-	0.29	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
12	64.6*	65.0*	-	1.16	-	-	-	0.25	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	20.6*	-	0.60	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
15	-	75.3*	-	2.20	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	36.83	-	-	247.2	0.01	0.11	-	-	-	-	-	-	-	-	-	-
18	-	-	-	37.82	-	-	253.8	0.02	0.12	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	72.4	74.3*	68.9	0.39	0.428	27.9	38.2	0.84	1.25	-	1697.	37.9	12.8	-	3.5	0.63	1.20	0.58	0.55
49	79.6	81.8*	75.9	0.43	0.471	30.7	42.1	0.93	1.37	-	1868.	41.7	14.1	-	3.8	0.69	1.32	0.64	0.60
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	64.1*	70.6	64.5	0.39	0.169	25.9	37.8	0.81	1.39	-	1372.	27.5	11.9	-	2.7	0.64	1.21	0.57	0.56
55	70.8*	78.0	71.3	0.43	0.187	28.6	41.8	0.90	1.54	-	1517.	30.5	13.1	-	3.0	0.70	1.34	0.63	0.62
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	9.2*	9.2*	-	0.09	-	1.6	11.5	0.07	0.28	-	-	-	-	-	-	-	-	-	-
63	65.5*	66.0*	-	0.62	-	11.7	81.9	0.48	1.98	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	10.3*	10.4*	-	0.11	-	1.5	4.2	0.05	0.52	-	-	-	-	-	-	-	-	-	-
67	64.2*	64.9*	-	0.69	-	9.3	26.1	0.29	3.26	-	-	-	-	-	-	-	-	-	-
68	8.4*	8.9*	-	0.08	-	2.1	6.7	0.05	0.35	-	-	-	-	-	-	-	-	-	-
69	59.0*	62.6*	-	0.53	-	14.6	47.5	0.34	2.46	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	22.6*	16.2*	-	0.18	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
72	97.2*	69.7*	-	0.79	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	50.4*	50.0*	-	0.80	0.135	8.0	21.0	0.32	1.10	14.8	-	-	-	-	-	-	-	-	-
75	52.1*	51.7*	-	0.83	0.140	8.3	21.7	0.33	1.14	15.3	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	53.3*	58.8*	-	0.72	0.250	35.7	28.9	0.48	-	38.3	-	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	65.6*	60.6*	-	0.56	0.178	27.7	29.3	0.40	-	32.2	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	0.62	0.232	25.7	23.3	0.37	-	29.8	-	-	-	-	-	-	-	-	-
82	10.4*	11.1*	-	0.10	-	3.3	16.4	0.06	0.30	-	-	-	-	-	-	-	-	-	-
83	61.6*	66.0*	-	0.61	-	19.6	97.5	0.35	1.80	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	57.3*	55.0*	-	1.22	0.101	14.9	64.2	0.41	1.87	28.0	-	-	-	-	-	-	-	-	-
86	62.7*	60.1*	-	1.33	0.110	16.3	70.2	0.45	2.05	30.6	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	61.5*	66.5*	-	0.15	-	-	-	0.34	-	-	-	17.5	-	-	4.2	-	-	-	-
89	97.8*	105.7*	-	0.24	-	-	-	0.55	-	-	-	27.9	-	-	6.7	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	3.7*	4.3*	4.1*	0.01	-	-	-	0.03	-	-	-	5.6	-	-	0.7	-	-	-	-
92	59.5*	68.7*	66.0*	0.24	-	-	-	0.48	-	-	-	88.9	-	-	12.0	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	MALUS SPP, APPLES		-	-	-	-	-	-	-	-	-
02	-PULP, DEHY GRND, (4)	4-00-423	89.	2.1	27.0	4.4	5.0	2.76*	2.75*	1625.*	-
03	DRIED APPLE POMACE (AAFCO)		100.0	2.3	30.2	4.9	5.6	3.08*	3.07*	1819.*	-
04	MALUS SYLVESTRIS, APPLE, SYLVESTRIS		-	-	-	-	-	-	-	-	-
05	-FRUIT, FRESH, (4)	4-13-337	18.	0.3	1.1	0.2	0.3	-	0.68*	-	-
06			100.0	1.7	6.1	1.1	1.7	-	3.77*	-	-
07	MAMMILLARIA AIRAMPUS		-	-	-	-	-	-	-	-	-
08	MANGEL, ROOTS		-	-	-	-	-	-	-	-	-
09	-SEE BETA SPP MANGELS, ROOTS, FRESH,		-	-	-	-	-	-	-	-	-
10	(2)		-	-	-	-	-	-	-	-	-
11	MANIHOT ESCULENTA, CASSAVA, COMMON		-	-	-	-	-	-	-	-	-
12	-AERIAL PART, DEHY GRND, (1)	1-09-652	90.	6.9	24.7	4.7	10.9	2.39*	2.32*	-	-
13			100.0	7.7	27.3	5.2	12.1	2.64*	2.57*	-	-
14	-LEAVES, S-C, (1)	1-13-552	70.	7.3	12.6	4.4	18.8	1.94*	2.15*	-	-
15			100.0	10.4	18.0	6.3	26.9	2.78*	3.08*	-	-
16	-LEAVES, FRESH, (2)	2-01-153	26.	2.3	4.0	2.7	6.7	-	-	-	-
17			100.0	8.7	15.3	10.4	25.5	-	-	-	-
18	-PEELINGS, DEHY, (4)	4-11-937	88.	3.0	5.8	1.0	4.8	2.91*	3.24*	3372.*	-
19			100.0	3.4	6.6	1.1	5.5	3.32*	3.69*	3849.*	-
20	-ROOTS, FRESH, (4)	4-09-599	37.	1.1	1.6	0.3	1.3	-	1.40*	1470.*	-
21			100.0	3.0	4.3	0.9	3.5	-	3.76*	3960.*	-
22	MANIHOT SPP, CASSAVA		-	-	-	-	-	-	-	-	-
23	-ROOTS, DEHY GRND, (4)	4-01-152	87.	3.0	7.6	0.3	2.4	3.03*	3.20*	3476.*	-
24	CASSAVA MEAL		100.0	3.5	8.7	0.4	2.8	3.48*	3.66*	3982.*	-
25	MAURITIA VINIFERA, MAURITIA, WINE		-	-	-	-	-	-	-	-	-
26	MEAT MEAL TANKAGE (AAFCO)		-	-	-	-	-	-	-	-	-
27	-SEE ANIMAL, CARCASS RESIDUE W BLOOD,		-	-	-	-	-	-	-	-	-
28	DRY OR WET RENDERED DEHY GRND, MN 9%		-	-	-	-	-	-	-	-	-
29	INDIGESTIBLE MATERIAL MX 4.4%		-	-	-	-	-	-	-	-	-
30	PHOSPHORUS, (5)		-	-	-	-	-	-	-	-	-
31	MEAT MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
32	-SEE ANIMAL, CARCASS RESIDUE, DRY		-	-	-	-	-	-	-	-	-
33	RENDERED DEHY GRND, MN 9% INDIGESTIBLE		-	-	-	-	-	-	-	-	-
34	MATERIAL MX 4.4% PHOSPHORUS, (5)		-	-	-	-	-	-	-	-	-
35	MEAT SCRAP		-	-	-	-	-	-	-	-	-
36	-SEE ANIMAL, CARCASS RESIDUE, DRY		-	-	-	-	-	-	-	-	-
37	RENDERED DEHY GRND, MN 9% INDIGESTIBLE		-	-	-	-	-	-	-	-	-
38	MATERIAL MX 4.4% PHOSPHORUS, (5)		-	-	-	-	-	-	-	-	-
39	MEDICAGO SATIVA, ALFALFA		-	-	-	-	-	-	-	-	-
40	-AERIAL PART, DEHY GRND, (1)	1-00-025	93.	10.9	24.0	2.8	18.7	2.49*	2.41*	-	-
41	DEHYDRATED ALFALFA MEAL (AAFCO)		100.0	11.7	25.9	3.0	20.2	2.69*	2.60*	-	-
42	-AERIAL PART, DEHY GRND, LATE	1-00-018	92.	12.5	26.0	1.9	18.0	2.34*	2.29*	-	-
43	VEGETATIVE, (1)		100.0	13.5	28.2	2.0	19.5	2.54*	2.48*	-	-
44	-AERIAL PART, DEHY GRND, MN 15% PROTEIN, (1)	1-00-022	92.	8.9	26.6	2.2	15.3	2.36*	2.32*	1819.*	1148.
45			100.0	9.6	29.0	2.4	16.7	2.57*	2.53*	1982.*	1251.
46	-AERIAL PART, DEHY GRND, MN 17% PROTEIN, (1)	1-00-023	92.	9.3	24.1	2.6	17.4	2.49*	2.38*	1958.*	1363.
47			100.0	10.1	26.2	2.8	19.0	2.71*	2.58*	2130.*	1484.
48	-AERIAL PART, DEHY GRND, MN 20% PROTEIN, (1)	1-00-024	92.	10.6	20.2	2.9	20.0	2.66*	2.46*	2040.*	1631.
49			100.0	11.6	22.1	3.2	21.9	2.91*	2.68*	2229.*	1782.
50	-HAY, S-C, (1)	1-00-078	86.	8.8	24.1	2.4	17.1	2.29*	2.23*	-	-
51			100.0	10.2	27.9	2.8	19.8	2.65*	2.59*	-	-
52	-HAY, S-C, EARLY BLOOM, (1)	1-00-059	90.	8.1	27.1	2.0	17.6	1.92	2.32*	-	-
53			100.0	9.0	30.1	2.2	19.5	2.13	2.57*	-	-
54	-LEAVES, S-C, (1)	1-00-146	92.	10.3	14.3	3.8	28.7	-	-	-	-
55			100.0	11.2	15.6	4.2	31.3	-	-	-	-
56	-AERIAL PART, FRESH, EARLY VEGETATIVE, (2)	2-00-177	38.	4.8	11.0	1.0	9.3	-	1.11	-	-
57			100.0	12.6	28.6	2.7	24.1	-	2.90	-	-
58	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-00-181	28.	3.0	7.5	0.6	6.0	0.76*	0.72	-	-
59			100.0	11.0	27.3	2.1	21.9	2.75*	2.62	-	-
60	-AERIAL PART, FRESH, EARLY BLOOM, (2)	2-00-184	25.	2.8	6.9	0.6	5.6	0.65*	0.68*	-	-
61			100.0	11.5	28.0	2.6	22.8	2.67*	2.77*	-	-
62	-LEAVES, FRESH, (2)	2-00-202	30.	3.0	5.2	1.2	8.5	-	-	-	-
63			100.0	10.1	17.5	4.0	28.6	-	-	-	-
64	-AERIAL PART, ENSILED, (3)	3-00-212	29.	4.3	8.9	1.1	4.7	0.77	0.84	-	-
65			100.0	15.0	31.0	3.8	16.5	2.68	2.91	-	-
66	MELILOTUS ALBA, SWEETCLOVER, WHITE		-	-	-	-	-	-	-	-	-
67	-AERIAL PART, FRESH, FULL BLOOM, (2)	2-11-586	43.	2.7	12.3	0.6	5.2	1.15*	1.17*	-	-
68			100.0	6.3	28.9	1.5	12.2	2.71*	2.74*	-	-
69	MELINIS MINUTIFLORA, MOLASSESGRASS		-	-	-	-	-	-	-	-	-
70	-AERIAL PART, FRESH, (2)	2-03-130	27.	2.3	8.0	0.8	2.5	0.71*	0.70*	-	-
71			100.0	8.8	30.2	3.2	9.4	2.69*	2.65*	-	-
72	-AERIAL PART, FRESH, 29 TO	2-09-718	21.	1.8	6.6	0.7	1.9	0.56*	0.56*	-	-
73	42 DAYS' GROWTH, (2)		100.0	8.6	30.9	3.3	8.8	2.66*	2.63*	-	-
74	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-10-241	24.	2.0	8.7	0.4	1.8	0.55*	0.60*	-	-
75			100.0	8.4	36.0	1.7	7.3	2.28*	2.48*	-	-
76	-AERIAL PART, FRESH, MATURE, (2)	2-03-129	36.	3.2	13.0	0.7	1.2	0.72*	0.70*	-	-
77			100.0	8.9	36.7	2.0	3.3	2.04*	1.97*	-	-
78	MENTHA SPP, MINT		-	-	-	-	-	-	-	-	-
79	-LEAVES, FRESH, (2)	2-13-403	20.	2.4	1.9	1.2	3.9	-	0.69*	-	-
80			100.0	11.8	9.3	5.9	19.1	-	3.36*	-	-
81	MIDDLINGS, MX 4.5% FIBER (CFA)		-	-	-	-	-	-	-	-	-
82	-SEE TRITICUM SPP, FLOUR BY-PRODUCT,		-	-	-	-	-	-	-	-	-
83	FINE SIFTED, MX 4% FIBER, (4)		-	-	-	-	-	-	-	-	-
84	MILK, ALBUMIN, DRIED		-	-	-	-	-	-	-	-	-
85	-SEE BOS SPP, WHEY ALBUMIN, HEAT AND		-	-	-	-	-	-	-	-	-
86	ACID PRECIPITATED DEHY, MN 75%		-	-	-	-	-	-	-	-	-
87	PROTEIN, (5)		-	-	-	-	-	-	-	-	-
88	MILK, CATTLE, FRESH		-	-	-	-	-	-	-	-	-
89	-SEE BOS SPP, MILK, FRESH, (5)		-	-	-	-	-	-	-	-	-
90	MILK, SKIMMED, DRIED		-	-	-	-	-	-	-	-	-
91	-SEE BOS SPP, MILK, SKIMMED DEHY, MX		-	-	-	-	-	-	-	-	-
92	8% MOISTURE, (5)		-	-	-	-	-	-	-	-	-
93	MILK, WHOLE, DRIED		-	-	-	-	-	-	-	-	-
94	-SEE BOS SPP, MILK, DEHY, FEED GR MX		-	-	-	-	-	-	-	-	-
95	8% MOISTURE MN 26% FAT, (5)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	62.5	62.3*	36.9*	0.11	-	-	7.2	0.10	0.44	-	-	-	-	-	-	-	-	-	-
03	70.0	69.7*	41.2*	0.12	-	-	8.1	0.11	0.49	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	15.4*	-	0.01	-	-	-	0.01	-	-	-	3.1	-	-	0.4	-	-	-	-
06	-	85.5*	-	0.06	-	-	-	0.06	-	-	-	17.2	-	-	2.2	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	54.1*	52.6*	-	0.54	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
13	59.9*	58.2*	-	0.60	-	-	-	0.26	-	-	-	-	-	-	-	-	-	-	-
14	44.0*	48.7*	-	2.95	-	-	-	0.74	1.74	-	-	-	-	-	-	-	-	-	-
15	63.1*	69.8*	-	4.23	-	-	-	1.06	2.50	-	-	-	-	-	-	-	-	-	-
16	-	-	-	0.69	-	2.6	93.9	0.06	-	-	-	17.6	-	-	2.8	-	-	-	-
17	-	-	-	2.62	-	9.9	359.0	0.22	-	-	-	67.2	-	-	10.7	-	-	-	-
18	65.9*	73.4*	76.5*	0.32	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
19	75.2*	83.7*	87.3*	0.36	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
20	-	31.6*	33.3*	0.10	-	3.7	7.4	0.06	0.40	-	-	-	-	-	-	-	-	-	-
21	-	85.3*	89.8*	0.26	-	10.0	19.9	0.16	1.09	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	68.8*	72.5*	78.8*	0.15	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
24	78.9*	83.0*	90.3*	0.17	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	56.4*	54.6*	-	1.91	-	195.8	53.6	0.48	3.70	-	-	-	-	-	-	-	-	-	-
41	61.0*	59.0*	-	2.06	-	211.5	57.9	0.52	4.00	-	-	-	-	-	-	-	-	-	-
42	53.2*	52.0*	-	-	-	-	-	0.30	-	-	-	-	-	-	-	-	0.66	0.11	0.18
43	57.5*	56.3*	-	-	-	-	-	0.33	-	-	-	-	-	-	-	-	0.71	0.12	0.19
44	53.5*	52.7*	41.2	1.35	-	10.7	29.9	0.21	1.57	20.6	1116.	39.8	19.0	-	10.8	0.28	0.74	0.24	0.26
45	58.3*	57.5*	44.9	1.47	-	11.7	32.6	0.23	1.72	22.5	1216.	43.4	20.7	-	11.7	0.31	0.80	0.26	0.28
46	56.5*	53.9*	44.4	1.44	0.122	10.2	30.8	0.22	2.17	24.1	1098.	26.0	25.6	-	13.6	0.33	0.93	0.23	0.28
47	61.4*	58.6*	48.3	1.57	0.133	11.1	33.5	0.24	2.36	26.2	1194.	28.3	27.8	-	14.8	0.36	1.02	0.25	0.30
48	60.3*	55.7*	46.3	1.67	-	11.2	42.3	0.28	2.21	25.0	1172.	40.1	34.2	-	15.2	0.39	0.96	0.31	0.33
49	65.9*	60.8*	50.6	1.82	-	12.2	46.2	0.31	2.42	27.3	1280.	43.8	37.4	-	16.6	0.42	1.05	0.34	0.36
50	51.9*	50.7*	-	1.54	0.084	9.4	45.8	0.26	1.94	33.3	-	48.3	-	-	7.0	-	-	-	-
51	60.1*	58.7*	-	1.79	0.098	10.9	53.0	0.30	2.25	38.6	-	55.9	-	-	8.1	-	-	-	-
52	52.4	52.6	-	1.26	0.039	5.5	20.5	0.17	1.87	-	-	-	-	-	-	-	-	-	-
53	58.2	58.4	-	1.40	0.043	6.1	22.7	0.19	2.08	-	-	-	-	-	-	-	-	-	-
54	-	-	-	0.97	-	-	-	0.26	-	-	-	7.5	-	-	11.7	0.37	0.92	0.32	0.28
55	-	-	-	1.06	-	-	-	0.28	-	-	-	8.1	-	-	12.8	0.40	1.00	0.35	0.30
56	-	24.0	-	0.59	0.103	9.4	14.9	0.11	1.09	28.4	-	-	-	-	-	-	-	-	-
57	-	62.5	-	1.55	0.267	24.5	38.7	0.28	2.84	74.0	-	-	-	-	-	-	-	-	-
58	17.2*	16.4	-	0.42	-	3.9	28.7	0.09	0.63	11.2	-	-	-	-	-	-	-	-	-
59	62.3*	59.3	-	1.51	-	14.1	103.9	0.34	2.28	40.6	-	-	-	-	-	-	-	-	-
60	14.9*	15.4*	-	0.40	0.061	4.3	9.4	0.06	-	7.7	-	-	-	-	-	-	-	-	-
61	60.6*	62.7*	-	1.64	0.250	17.5	38.3	0.26	-	31.4	-	-	-	-	-	-	-	-	-
62	-	-	-	0.76	-	-	-	0.09	0.19	-	-	8.2	-	-	9.5	-	-	-	-
63	-	-	-	2.56	-	-	-	0.32	0.65	-	-	27.6	-	-	32.0	-	-	-	-
64	17.1	14.8*	-	0.52	-	1.8	9.7	0.07	0.68	-	-	-	-	-	-	-	-	-	-
65	59.4	51.6*	-	1.82	-	6.2	33.9	0.26	2.38	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	26.2*	26.4*	-	0.20	-	-	-		-	-	-	-	-	-	-	-	-	-	-
68	61.5*	62.2*	-	0.46	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	16.2*	16.0*	-	0.08	0.018	5.4	21.4	0.05	0.30	21.0	-	-	-	-	-	-	-	-	-
71	60.9*	60.0*	-	0.31	0.066	20.5	80.6	0.18	1.13	79.0	-	-	-	-	-	-	-	-	-
72	12.8*	12.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	60.4*	59.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	12.5*	13.5*	-	0.08	-	14.2	35.4	0.05	0.37	18.8	-	-	-	-	-	-	-	-	-
75	51.8*	56.2*	-	0.35	-	59.0	147.0	0.19	1.54	78.0	-	-	-	-	-	-	-	-	-
76	16.4*	15.9	-	0.10	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
77	46.3*	44.7	-	0.28	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	-	15.5*	-	0.19	-	-	-	0.06	-	-	-	10.2	-	-	2.7	-	-	-	-
80	-	76.2*	-	0.93	-	-	-	0.29	-	-	-	50.0	-	-	13.2	-	-	-	-
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	MIMOSA TENUIFLORA		-	-	-	-	-	-	-	-	-
02	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-554	35.	3.2	4.9	1.9	6.0	-	1.14*	-	-
03			100.0	9.0	13.9	5.4	17.1	-	3.23*	-	-
04	MOLASSES, CANE		-	-	-	-	-	-	-	-	-
05	-SEE SACCHARUM OFFICINARUM, MOLASSES,		-	-	-	-	-	-	-	-	-
06	MN 48% INVERT SUGAR MN 79.5 DEGREES		-	-	-	-	-	-	-	-	-
07	BRIX, (4)		-	-	-	-	-	-	-	-	-
08	MOLASSES (CFA)		-	-	-	-	-	-	-	-	-
09	-SEE BETA SACCHARIFERA SUGAR,		-	-	-	-	-	-	-	-	-
10	MOLASSES, MN 48% INVERT SUGAR MN 79.5		-	-	-	-	-	-	-	-	-
11	DEGREES BRIX, (4)		-	-	-	-	-	-	-	-	-
12	MUCUNA URENS, MUCUNA, COMAGE		-	-	-	-	-	-	-	-	-
13	-AERIAL PART, S-C GRND, (1)	1-11-912	91.	4.8	25.8	3.2	13.1	2.49*	2.40*	-	-
14			100.0	5.3	28.5	3.5	14.4	2.75*	2.64*	-	-
15	MUHLENBERGIA ERECTIFOLIA, MUHLY, ERECTIFOLIA		-	-	-	-	-	-	-	-	-
16	-AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-555	25.	2.2	9.9	0.4	1.8	0.55*	0.60*	-	-
17			100.0	8.8	39.6	1.7	7.1	2.19*	2.41*	-	-
18	MUHLENBERGIA FASTIGIATA, MUHLY, FASTIGIATA		-	-	-	-	-	-	-	-	-
19	-AERIAL PART, FRESH, (2)	2-10-933	-	-	-	-	-	-	-	-	-
20			100.0	5.8	31.2	2.8	6.8	2.66*	2.68*	-	-
21	-AERIAL PART, FRESH, MATURE, (2)	2-10-932	-	-	-	-	-	-	-	-	-
22			100.0	5.4	27.5	2.2	5.8	2.86*	2.77*	-	-
23	MUHLENBERGIA LIGULARIS, MUHLY, LIGULARIS		-	-	-	-	-	-	-	-	-
24	-AERIAL PART, FRESH, MATURE, (2)	2-10-937	-	-	-	-	-	-	-	-	-
25			100.0	6.0	27.9	2.0	5.1	2.75*	2.74*	-	-
26	MUHLENBERGIA PERUVIANA, MUHLY, PERUVIAN		-	-	-	-	-	-	-	-	-
27	-AERIAL PART, FRESH, MATURE, (2)	2-10-935	-	-	-	-	-	-	-	-	-
28			100.0	5.8	30.2	2.2	3.4	2.57*	2.65*	-	-
29	MUHLENBERGIA PURPUSI, MUHLY, PURPUSI		-	-	-	-	-	-	-	-	-
30	-AERIAL PART, DEHY, (1)	1-17-557	95.	8.4	34.0	2.4	6.2	2.17*	2.11*	-	-
31			100.0	8.8	35.8	2.5	6.5	2.28*	2.22*	-	-
32	MUSA PARADISIACA, BANANA, PLANTAIN		-	-	-	-	-	-	-	-	-
33	-FRUIT NO PEELINGS, FRESH, (4)	4-11-903	30.	0.5	0.6	0.2	1.4	-	1.15*	1196.*	-
34			100.0	1.7	2.0	0.7	4.7	-	3.85*	4000.*	-
35	MUSA PARADISIACA, SAPIENTUM, BANANA, COMMON		-	-	-	-	-	-	-	-	-
36	-SAPIENTUM COMMON, LEAVES, DEHY, (1)	1-11-002	97.	12.1	18.6	4.2	16.1	2.80*	2.66*	-	-
37			100.0	12.5	19.2	4.3	16.6	2.89*	2.75*	-	-
38	-SAPIENTUM COMMON, LEAVES, FRESH, (2)	2-11-003	21.	2.3	5.0	1.1	3.4	-	0.60*	-	-
39			100.0	11.1	24.1	5.4	16.4	-	2.89*	-	-
40	MUSA SPP, BANANA		-	-	-	-	-	-	-	-	-
41	-AERIAL PART, FRESH, (2)	2-00-483	8.	1.0	1.8	0.2	0.5	0.23*	0.22*	-	-
42			100.0	12.2	22.5	2.2	6.5	2.89*	2.75*	-	-
43	OAT GROATS (CFA)		-	-	-	-	-	-	-	-	-
44	-SEE AVENA SATIVA, GROATS, (4)		-	-	-	-	-	-	-	-	-
45	OAT GROATS (AAFCO)		-	-	-	-	-	-	-	-	-
46	-SEE AVENA SATIVA, GROATS, (4)		-	-	-	-	-	-	-	-	-
47	OAT MEAL		-	-	-	-	-	-	-	-	-
48	-SEE AVENA SATIVA, CEREAL BY-PRODUCT,		-	-	-	-	-	-	-	-	-
49	MX 4% FIBER, (4)		-	-	-	-	-	-	-	-	-
50	OAT MIDDLINGS (CFA)		-	-	-	-	-	-	-	-	-
51	-SEE AVENA SATIVA, CEREAL BY-PRODUCT,		-	-	-	-	-	-	-	-	-
52	MX 4% FIBER, (4)		-	-	-	-	-	-	-	-	-
53	OPUNTIA SPP, PRICKLYPEAR		-	-	-	-	-	-	-	-	-
54	-AERIAL PART, FRESH, (2)	2-01-061	17.	3.0	1.7	0.4	0.8	0.60*	0.45*	-	-
55			100.0	18.0	10.3	2.4	5.0	3.60*	2.66*	-	-
56	OPUNTIA VULGARIS, PRICKLYPEAR, COMMON		-	-	-	-	-	-	-	-	-
57	-FRUIT NO PEELINGS, FRESH, (2)	2-13-336	18.	0.3	6.3	0.2	1.1	0.39*	0.48*	-	-
58			100.0	1.7	36.0	1.1	6.3	2.21*	2.58*	-	-
59	ORANGE PULP, DRIED		-	-	-	-	-	-	-	-	-
60	-SEE CITRUS SINENSIS ORANGE, PULP NO		-	-	-	-	-	-	-	-	-
61	FINES, SHREDDED DEHY, (4)		-	-	-	-	-	-	-	-	-
62	ORANGE PULP, WET		-	-	-	-	-	-	-	-	-
63	-SEE CITRUS SINENSIS ORANGE, PULP,		-	-	-	-	-	-	-	-	-
64	SHREDDED WET, (4)		-	-	-	-	-	-	-	-	-
65	ORBIGNYA COHUNE, PALM, COHUNE		-	-	-	-	-	-	-	-	-
66	-KERNELS, MECH EXTD GRND CAKED, (5)	5-11-966	91.	4.9	17.9	7.3	19.9	2.83*	2.95*	-	-
67			100.0	5.4	19.7	8.1	22.0	3.12*	3.26*	-	-
68	ORBIGNYA MARTIANA, BABASSU, MARTIUS		-	-	-	-	-	-	-	-	-
69	-KERNELS, SOLV EXTD GRND CAKED, (5)	5-13-277	86.	7.2	16.8	2.3	21.7	2.21*	2.45*	-	-
70			100.0	8.4	19.6	2.7	25.4	2.58*	2.87*	-	-
71	ORYZA SATIVA, RICE		-	-	-	-	-	-	-	-	-
72	-BRAN W GERM W HULLS, (1)	1-03-931	91.	14.4	25.2	5.8	7.6	-	1.88*	-	-
73			100.0	15.9	27.9	6.4	8.3	-	2.08*	-	-
74	-HULLS, (1)	1-00-075	91.	17.7	38.2	1.9	4.1	-	1.60*	-	-
75	RICE HULLS (AAFCO)		100.0	19.5	42.1	2.1	4.5	-	1.76*	-	-
76	-STRAW, (1)	1-03-925	89.	15.8	31.7	2.1	4.8	1.66*	1.81	-	-
77			100.0	17.7	35.7	2.4	5.4	1.87*	2.04	-	-
78	-BRAN W GERM, DRY MILLED, MX 13%	4-03-928	91.	11.1	11.3	14.5	13.4	3.45*	3.09*	3268.*	1627.
79	FIBER CALCIUM CARBONATE DECLARED ABOVE		100.0	12.2	12.4	16.0	14.7	3.80*	3.41*	3597.*	1791.
80	3% MN, (4)		-	-	-	-	-	-	-	-	-
81	RICE BRAN (AAFCO)		-	-	-	-	-	-	-	-	-
82	-BRAN W GERM, SOLV EXTD GRND, (4)	4-13-294	94.	20.8	20.6	1.2	12.2	0.35*	2.22*	603.*	-
83			100.0	22.1	21.8	1.3	12.9	0.37*	2.35*	639.*	-
84	-BRAN W GERM, SOLV EXTD GRND, MN	4-03-930	89.	9.0	10.3	2.8	17.8	2.08*	2.76*	2493.*	-
85	14% PROTEIN MX 14% FIBER, (4)		100.0	10.1	11.6	3.1	19.9	2.33*	3.09*	2793.*	-
86	SOLVENT EXTRACTED RICE BRAN (AAFCO)		-	-	-	-	-	-	-	-	-
87	-GRAIN W HULLS, GRND, (4)	4-03-938	89.	8.0	7.1	3.9	9.9	2.25*	2.94*	2945.*	2663.
88	GROUND ROUGH RICE (AAFCO)		100.0	8.9	8.4	4.4	11.1	2.53*	3.30*	3306.*	2989.
89	GROUND PADDY RICE (AAFCO)		-	-	-	-	-	-	-	-	-
90	-GROATS, (4)	4-03-936	88.	4.1	3.2	6.8	10.1	3.09*	3.26*	3256.*	-
91	RICE GRAIN WITHOUT HULLS		100.0	4.7	3.6	7.7	11.5	3.50*	3.70*	3694.*	-
92	RICE GRAIN, BROWN		-	-	-	-	-	-	-	-	-
93	-GROATS, POLISHED, (4)	4-03-942	89.	3.0	1.8	4.1	9.1	3.02*	3.58*	3298.*	3102.
94	RICE, WHITE, POLISHED		100.0	3.4	2.0	4.6	10.2	3.39*	4.02*	3704.*	3483.

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	25.7*	-	0.20	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
03	-	73.4*	-	0.57	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	56.5*	54.3*	-	0.62	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
14	62.3*	59.9*	-	0.68	-	-	-	0.19	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	12.4*	13.7*	-	0.04	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
17	49.6*	54.7*	-	0.16	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	60.4*	60.3*	-	0.37	0.264	4.6	160.3	0.13	-	40.7	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	64.8*	62.9*	-	0.41	0.162	5.9	118.0	0.13	-	26.9	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	62.3*	62.1*	-	0.23	0.379	4.0	224.3	0.10	-	11.1	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	58.2*	60.0*	-	0.18	0.302	4.1	231.2	0.05	-	14.6	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	49.2*	47.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	5[illegible].8*	50.3*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	26.1*	27.1*	0.02	-	-	-	0.03	-	-	-	8.8	-	-	1.1	-	-	-	-
34	-	87.4*	90.7*	0.07	-	-	-	0.08	-	-	-	29.3	-	-	3.8	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	63.5*	60.3*	-	0.58	-	-	-	0.21	-	-	-	45.6	-	-	45.6	-	-	-	-
37	65.6*	62.3*	-	0.60	-	-	-	0.22	-	-	-	47.2	-	-	47.2	-	-	-	-
38	-	13.7*	-	0.11	-	-	-	0.04	-	-	-	9.0	-	-	1.3	-	-	-	-
39	-	65.6*	-	0.51	-	-	-	0.19	-	-	-	42.9	-	-	6.4	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	5.3*	5.1*	-	0.16	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-
42	65.5*	62.5*	-	1.93	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	13.7*	10.1*	-	0.57	-	-	-	0.01	0.42	-	-	-	-	-	-	-	-	-	-
55	81.6*	60.4*	-	3.41	-	-	-	0.08	2.53	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	8.8*	10.2*	-	0.03	-	-	-	0.02	-	-	-	3.0	-	-	0.[illegible]	-	-	-	-
58	50.2*	58.4*	-	0.17	-	-	-	0.11	-	-	-	17.1	-	-	1.1	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	64.1*	67.0*	-	0.21	-	-	-	0.70	-	-	-	16.0	-	-	1.8	0.16	0.97	0.39	0.13
67	70.7*	73.8*	-	0.23	-	-	-	0.78	-	-	-	17.7	-	-	2.0	0.17	1.07	0.43	0.14
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	50.1*	55.6*	-	0.32	-	-	-	0.78	-	-	-	-	-	-	-	-	-	-	-
70	58.5*	65.0*	-	0.37	-	-	-	0.91	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	42.7*	-	0.27	-	282.7	286.3	0.98	0.72	-	-	-	-	-	-	-	-	-	-
73	-	47.1*	-	0.30	-	312.0	316.0	1.08	0.80	-	-	-	-	-	-	-	-	-	-
74	-	36.2*	-	0.29	-	229.8	411.5	0.19	0.39	-	-	22.3	-	-	-	-	-	-	-
75	-	40.0*	-	0.32	-	253.5	454.0	0.21	0.44	-	-	24.6	-	-	-	-	-	-	-
76	37.7*		-	0.26	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
77	42.3*		-	0.29	-	-	-	0.36	-	-	-	-	-	-	-	-	-	-	-
78	78.3*	70.2*	74.1*	0.08	-	13.0	324.6	1.50	1.73	30.0	1135.	293.3	22.8	-	2.5	0.17	0.59	0.24	0.15
79	86.2*	77.3*	81.6*	0.08	-	14.3	357.4	1.65	1.90	33.0	1250.	322.9	25.1	-	2.8	0.19	0.65	0.27	0.16
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	48.0*	50.3*	13.7*	2.07	-	15.1	158.5	-	-	-	-	-	-	-	-	-	-	-	-
83	48.5*	53.3*	14.5*	2.20	-	16.0	168.1	-	-	-	-	-	-	-	-	-	-	-	-
84	47.1*	62.5*	56.5*	0.13	-	-	-	1.10	-	-	-	-	-	-	-	-	-	-	-
85	52.8*	70.0*	63.3*	0.15	-	-	-	1.24	-	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	51.1*	66.7*	66.8*	0.08	-	-	18.0	0.35	0.61	15.0	909.	41.5	7.2	-	0.6	0.10	0.30	0.17	0.11
88	57.3*	74.8*	75.0*	0.08	-	-	20.2	0.39	0.69	16.9	1020.	46.5	8.0	-	0.7	0.11	0.34	0.19	0.12
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	70.0*	73.9*	73.8*	0.24	-	124.3	65.0	0.33	0.30	-	-	22.9	-	-	0.5	0.06	0.28	0.10	0.15
91	79.4*	83.8*	83.8*	0.28	-	141.0	73.8	0.38	0.34	-	-	26.0	-	-	0.5	0.07	0.32	0.12	0.18
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	68.5*	81.2*	74.8*	0.13	-	16.9	13.0	0.12	0.09	2.0	656.	85.7	2.9	-	0.5	0.09	0.27	0.22	0.27
94	76.9*	91.2*	84.0*	0.14	-	19.0	14.6	0.13	0.10	2.2	737.	96.3	3.3	-	0.5	0.11	0.31	0.24	0.30

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	*POLISHINGS, DEHY, (4)	4-03-943	89.	8.3	5.7	14.7	12.9	3.45*	3.68*	3808.*	3059.
02	RICE POLISH (CFA)		100.0	9.3	6.4	16.4	14.5	3.86*	4.08*	4264.*	3426.
03	RICE POLISHINGS (AAFCO)		-	-	-	-	-	-	-	-	-
04	OXALIS CRENATA, OXALIS, OKA		-	-	-	-	-	-	-	-	-
05	*ROOTS, DEHY, (4)	4-13-451	87.	1.6	3.1	0.4	2.5	-	3.29*	3532.*	-
06			100.0	1.8	3.6	0.5	2.9	-	3.81*	4083.*	-
07	OYSTER SHELL FLOUR (AAFCO)		-	-	-	-	-	-	-	-	-
08	*SEE CRASSOSTREA SPP, OSTREA SPP,		-	-	-	-	-	-	-	-	-
09	SHELLS, FINE GRND, MN 33% CALCIUM, (6)		-	-	-	-	-	-	-	-	-
10	PANDALUS SPP, PENAEUS SPP, SHRIMP		-	-	-	-	-	-	-	-	-
11	*PENAEUS SPP, PROCESS RESIDUE,	5-13-541	88.	29.0	14.7	2.5	38.7	-	1.52*	-	-
12	DEHY GRND, (5)		100.0	32.9	16.7	2.8	43.9	-	1.73*	-	-
13	PANICUM ALTISSIMUM		-	-	-	-	-	-	-	-	-
14	*AERIAL PART, FRESH, CUT 1, (2)	2-11-047	17.	2.0	4.7	0.9	2.5	0.49*	0.47*	-	-
15			100.0	11.7	27.9	5.1	15.1	2.90*	2.78*	-	-
16	*AERIAL PART, FRESH, CUT 5, (2)	2-11-051	27.	2.4	8.7	0.9	2.5	0.66*	0.69*	-	-
17			100.0	9.2	32.8	3.3	9.2	2.49*	2.59*	-	-
18	*AERIAL PART, FRESH, CUT 8, (2)	2-11-321	31.	4.3	8.6	1.0	4.0	0.75*	0.80*	-	-
19			100.0	14.2	28.3	3.4	13.0	2.46*	2.61*	-	-
20	PANICUM ANTIDOTALE, PANICUM, BLUE		-	-	-	-	-	-	-	-	-
21	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-593	27.	3.2	8.1	0.5	5.3	0.73*	0.72*	-	-
22			100.0	11.7	29.8	1.8	19.4	2.71*	2.65*	-	-
23	PANICUM COLORATUM		-	-	-	-	-	-	-	-	-
24	*AERIAL PART, FRESH, (2)	2-10-914	26.	2.4	8.9	0.7	2.4	0.59*	0.65*	-	-
25			100.0	9.5	35.0	2.6	9.4	2.31*	2.54*	-	-
26	*AERIAL PART, FRESH, CUT 4, (2)	2-11-317	46.	4.5	16.2	1.8	2.7	1.07*	1.13*	-	-
27			100.0	9.8	35.1	3.9	5.9	2.33*	2.46*	-	-
28	PANICUM FASCICULATUM, PANICUM, BROWNTOP		-	-	-	-	-	-	-	-	-
29	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-17-598	20.	2.3	5.7	0.8	2.5	0.53*	0.52*	-	-
30			100.0	11.7	29.2	4.2	13.0	2.69*	2.68*	-	-
31	PANICUM MAXIMUM, GUINEAGRASS		-	-	-	-	-	-	-	-	-
32	*AERIAL PART, DEHY, (1)	1-13-433	93.	10.2	34.2	1.8	6.3	2.01*	2.01*	-	-
33			100.0	11.0	36.6	2.0	6.7	2.16*	2.15*	-	-
34	*AERIAL PART, FRESH, (2)	2-02-345	27.	3.0	8.3	0.9	3.0	0.71	0.70*	-	-
35			100.0	11.1	30.8	3.2	11.3	2.64	2.61*	-	-
36	*AERIAL PART, FRESH, 15 TO 28	2-09-995	19.	2.8	6.0	0.7	2.4	0.51	0.50*	-	-
37	DAYS' GROWTH, (2)		100.0	14.3	30.9	3.4	12.2	2.61	2.57*	-	-
38	*AERIAL PART, FRESH, 43 TO 56	2-09-910	22.	2.8	8.1	0.6	2.0	0.43	0.55*	-	-
39	DAYS' GROWTH, (2)		100.0	12.4	36.2	2.6	8.8	1.91	2.46*	-	-
40	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-02-338	24.	3.2	8.8	0.4	2.8	0.61*	0.59*	-	-
41			100.0	13.0	35.9	1.8	11.4	2.51*	2.44*	-	-
42	*AERIAL PART, FRESH, LATE	2-10-565	23.	2.8	8.8	0.3	1.3	0.52*	0.52*	-	-
43	VEGETATIVE, CUT 2, (2)		100.0	12.4	38.8	1.4	5.9	2.30*	2.31*	-	-
44	*AERIAL PART, FRESH, EARLY BLOOM, CUT 1, (2)	2-10-823	24.	3.0	10.6	0.3	1.2	-	-	-	-
45			100.0	12.3	43.5	1.1	4.9	-	-	-	-
46	*AERIAL PART, FRESH FERTILIZED, (2)	2-10-856	23.	2.9	7.8	0.3	2.3	0.58*	0.57*	-	-
47			100.0	12.3	33.5	1.5	9.7	2.49*	2.45*	-	-
48	*AERIAL PART, FRESH	2-10-305	21.	2.7	6.7	0.4	2.1	0.44*	0.53*	-	-
49	FERTILIZED, 29 TO 42 DAYS' GROWTH, (2)		100.0	12.8	31.5	2.1	10.1	2.07*	2.51*	-	-
50	*LEAVES, FRESH FERTILIZED, 43	2-10-327	24.	2.7	7.8	0.6	2.4	0.58*	0.61*	-	-
51	TO 56 DAYS' GROWTH, (2)		100.0	11.1	32.3	2.6	9.8	2.40*	2.55*	-	-
52	PANICUM PURPURASCENS, PARAGRASS		-	-	-	-	-	-	-	-	-
53	*LEAVES, S-C, (1)	1-13-425	92.	13.1	28.8	1.5	8.0	2.00*	2.01*	-	-
54			100.0	14.2	31.1	1.7	8.6	2.17*	2.17*	-	-
55	*STEMS, S-C, (1)	1-13-424	92.	9.8	39.1	0.9	3.9	1.88*	1.93*	-	-
56			100.0	10.6	42.3	0.9	4.2	2.03*	2.08*	-	-
57	*AERIAL PART, FRESH, (2)	2-03-525	26.	3.1	8.2	0.6	2.5	0.64*	0.67*	-	-
58			100.0	11.9	31.1	2.3	9.3	2.42*	2.54*	-	-
59	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-10-251	26.	3.0	8.0	0.4	3.3	0.67*	0.67*	-	-
60			100.0	11.3	30.7	1.7	12.7	2.58*	2.57*	-	-
61	*AERIAL PART, FRESH, MATURE, (2)	2-03-523	89.	11.2	32.7	2.1	8.0	1.95*	2.17*	-	-
62			100.0	12.6	36.9	2.4	9.1	2.20*	2.44*	-	-
63	PANICUM SORRIPANDUM		-	-	-	-	-	-	-	-	-
64	*AERIAL PART, FRESH, (2)	2-11-709	25.	2.2	9.5	0.8	2.0	0.55*	0.64*	-	-
65			100.0	8.8	37.3	3.3	7.9	2.16*	2.51*	-	-
66	PARATHERIA PROSTATA		-	-	-	-	-	-	-	-	-
67	*AERIAL PART, FRESH, (2)	2-11-668	-	-	-	-	-	-	-	-	-
68			100.0	9.8	29.4	4.6	9.3	3.09*	2.62*	-	-
69	PASPALUM CONJUGATUM, PASPALUM, SOUR		-	-	-	-	-	-	-	-	-
70	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-10-285	28.	3.4	7.8	0.3	2.8	0.74*	0.72*	-	-
71			100.0	12.1	27.8	1.2	10.0	2.63*	2.57*	-	-
72	*AERIAL PART, FRESH, LATE BLOOM, (2)	2-10-818	27.	3.0	8.2	0.4	2.4	0.67*	0.68*	-	-
73			100.0	11.2	30.4	1.6	9.0	2.51*	2.54*	-	-
74	*AERIAL PART, FRESH, MATURE, (2)	2-10-288	27.	2.5	9.[illegible]	0.7	2.6	0.63*	0.69*	-	-
75			100.0	9.2	35.3	2.7	9.4	2.30*	2.54*	-	-
76	PASPALUM CORIFEUM		-	-	-	-	-	-	-	-	-
77	*AERIAL PART, FRESH, MILK STAGE, (2)	2-17-523	32.	2.7	12.2	0.4	2.2	0.76*	0.77*	-	-
78			100.0	8.3	37.8	1.1	7.0	2.36*	2.40*	-	-
79	PASPALUM FASCICULATUM, PASPALUM, BROWNTOP		-	-	-	-	-	-	-	-	-
80	*AERIAL PART, FRESH, (2)	2-11-470	-	-	-	-	-	-	-	-	-
81			100.0	10.7	29.2	1.4	8.4	2.56*	2.57*	-	-
82	PASPALUM LANGEI, PASPALUM, RUSTYSEED		-	-	-	-	-	-	-	-	-
83	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-562	20.	2.8	6.3	0.2	2.4	0.53*	0.48*	-	-
84			100.0	13.9	32.0	1.0	11.9	2.70*	2.43*	-	-
85	PASPALUM MACROPHYLLUM		-	-	-	-	-	-	-	-	-
86	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-558	25.	3.1	8.3	0.4	2.3	0.60*	0.62*	-	-
87			100.0	12.3	33.1	1.7	9.1	2.42*	2.46*	-	-
88	PASPALUM NOTATUM, BAHIAGRASS		-	-	-	-	-	-	-	-	-
89	*AERIAL PART, FRESH, (2)	2-00-464	31.	3.1	9.3	0.7	2.3	0.78*	0.80*	-	-
90			100.0	10.0	30.1	2.3	7.5	2.51*	2.59*	-	-
91	PASPALUM NOTATUM, BAHIAGRASS, PENSACOLA		-	-	-	-	-	-	-	-	-
92	*AERIAL PART, FRESH, (2)	2-11-538	37.	4.5	10.4	1.0	2.9	0.93*	0.95*	-	-
93			100.0	12.2	28.3	2.6	7.8	2.54*	2.58*	-	-
94	PASPALUM PILOSUS		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	78.2	82.7	86.4	0.20	-	-	-	0.56	1.06	-	1224.	480.6	46.4	-	1.8	0.19	0.55	0.22	0.14
02	87.6	92.6	96.7	0.23	-	-	-	0.63	1.18	-	1371.	538.3	52.0	-	2.0	0.21	0.62	0.25	0.15
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	74.7*	80.1*	0.06	-	-	-	0.05	-	-	-	4.5	-	-	1.8	-	-	-	-
06	-	86.4*	92.6*	0.07	-	-	-	0.06	-	-	-	5.2	-	-	2.1	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	34.6*	-	7.55	-	-	-	1.98	-	-	-	-	-	-	-	0.90	3.81	0.66	0.52
12	-	39.1*	-	8.55	-	-	-	2.24	-	-	-	-	-	-	-	1.02	4.32	0.75	0.59
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	11.0*	10.6*	-	0.08	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
15	65.8*	63.0*	-	0.46	-	-	-	0.42	-	-	-	-	-	-	-	-	-	-	-
16	15.1*	15.6*	-	0.08	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
17	56.5*	58.8*	-	0.32	-	-	-	0.25	-	-	-	-	-	-	-	-	-	-	-
18	17.0*	18.1*	-	0.13	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
19	55.8*	59.2*	-	0.44	-	-	-	0.35	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	16.7*	16.3*	-	0.12	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
22	61.5*	60.1*	-	0.43	-	-	-	0.27	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	13.4*	14.7*	-	0.02	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
25	52.5*	57.6*	-	0.06	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-
26	24.3*	25.7*	-	0.17	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
27	52.7*	55.9*	-	0.38	-	-	-	0.38	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	11.9*	11.8*	-	0.06	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
30	61.1*	60.8*	-	0.32	-	-	-	0.20	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	45.7*	45.5*	-	0.44	-	-	-	0.25	-	-	-	-	-	-	-	-	-	-	-
33	48.9*	48.7*	-	0.47	-	-	-	0.26	-	-	-	-	-	-	-	-	-	-	-
34	15.9	15.9*	-	0.10	0.015	7.3	52.3	0.06	-	-	-	-	-	-	-	-	-	-	-
35	59.6	59.3*	-	0.39	0.056	27.4	195.4	0.23	-	-	-	-	-	-	-	-	-	-	-
36	10.2*	11.3*	-	0.17	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
37	52.4*	58.2*	-	0.86	-	-	-	0.36	-	-	-	-	-	-	-	-	-	-	-
38	11.0*	12.5*	-	0.16	-	-	-	0.06	0.16	-	-	-	-	-	-	-	-	-	-
39	49.2*	55.8*	-	0.72	-	-	-	0.28	0.71	-	-	-	-	-	-	-	-	-	-
40	13.9*	13.5*	-	0.13	-	7.7	44.9	0.06	0.51	10.3	-	-	-	-	-	-	-	-	-
41	56.9*	55.2*	-	0.51	-	31.5	184.0	0.24	2.10	42.0	-	-	-	-	-	-	-	-	-
42	11.8*	11.9*	-	0.09	-	3.2	7.1	0.05	0.55	-	-	-	-	-	-	-	-	-	-
43	52.1*	52.4*	-	0.39	-	14.1	31.4	0.24	2.44	-	-	-	-	-	-	-	-	-	-
44	-	-	-	0.11	-	1.6	24.5	0.06	0.44	-	-	-	-	-	-	-	-	-	-
45	-	-	-	0.45	-	6.7	100.7	0.26	1.82	-	-	-	-	-	-	-	-	-	-
46	13.2*	13.0*	-	0.07	0.233	-	-	0.01	0.04	8.4	-	-	-	-	-	-	-	-	-
47	56.5*	55.6*	-	0.30	1.000	-	-	0.04	0.18	36.0	-	-	-	-	-	-	-	-	-
48	9.9	12.0*	-	0.17	-	1.3	8.3	0.06	0.35	-	-	-	-	-	-	-	-	-	-
49	46.9	56.9*	-	0.82	-	6.3	39.2	0.29	1.64	-	-	-	-	-	-	-	-	-	-
50	13.1*	13.9*	-	0.15	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
51	54.3*	57.9*	-	0.64	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	45.4*	45.5*	-	0.30	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-
54	49.1*	49.2*	-	0.33	-	-	-	0.24	-	-	-	-	-	-	-	-	-	-	-
55	42.6*	43.7*	-	0.10	-	-	-	0.20	-	-	-	-	-	-	-	-	-	-	-
56	46.1*	47.2*	-	0.11	-	-	-	0.21	-	-	-	-	-	-	-	-	-	-	-
57	14.5*	15.2*	-	0.09	0.071	3.7	54.6	0.07	-	-	-	-	-	-	-	-	-	-	-
58	54.9*	57.6*	-	0.33	0.269	14.0	206.5	0.28	-	-	-	-	-	-	-	-	-	-	-
59	15.3*	15.3*	-	0.15	-	7.2	23.3	0.07	0.56	18.3	-	-	-	-	-	-	-	-	-
60	58.5*	58.4*	-	0.58	-	27.3	89.0	0.28	2.13	70.0	-	-	-	-	-	-	-	-	-
61	44.2*	49.2*	-	0.38	0.030	9.0	22.7	0.39	1.29	-	-	-	-	-	-	-	-	-	-
62	49.8*	55.4*	-	0.42	0.033	10.1	25.6	0.44	1.45	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	12.5*	14.5*	-	0.02	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
65	49.0*	57.0*	-	0.07	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	70.1*	59.4*	-	0.29	0.030	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	16.7*	16.3*	-	0.15	0.031	1.7	82.2	0.06	-	-	-	-	-	-	-	-	-	-	-
71	59.7*	58.4*	-	0.53	0.111	5.9	294.0	0.22	-	-	-	-	-	-	-	-	-	-	-
72	15.3*	15.5*	-	0.10	0.033	1.4	67.0	0.05	-	-	-	-	-	-	-	-	-	-	-
73	57.0*	57.5*	-	0.39	0.124	5.2	249.4	0.19	-	-	-	-	-	-	-	-	-	-	-
74	14.3*	15.8*	-	0.10	0.084	1.5	63.5	0.10	-	-	-	-	-	-	-	-	-	-	-
75	52.2*	57.7*	-	0.36	0.306	5.5	232.5	0.37	-	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	17.3*	17.6*	-	0.06	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
78	53.5*	54.5*	-	0.19	-	-	-	0.30	-	-	-	-	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	58.0*	58.3*	-	0.34	0.030	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	12.1*	10.9*	-	0.31	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
84	61.2*	55.1*	-	1.56	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	13.7*	14.0*	-	0.10	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
87	54.9*	55.9*	-	0.38	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	17.6*	18.2*	-	0.03	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
90	56.8*	58.7*	-	0.09	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	21.2*	21.5*	-	0.02	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
93	57.5*	58.5*	-	0.04	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-560	25.	2.4	9.2	0.4	1.8	0.58*	0.60*	-	-
02			100.0	9.6	36.6	1.4	7.0	2.33*	2.42*	-	-
03	PASPALUM PLICATULUM, PASPALUM, BROWNSEED		-	-	-	-	-	-	-	-	-
04	*HAY, S-C, (1)	1-11-539	92.	12.3	28.1	0.8	4.4	1.85*	1.92*	-	-
05			100.0	13.4	30.7	0.8	4.9	2.02*	2.10*	-	-
06	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-10-221	30.	3.4	8.9	0.3	3.5	0.80*	0.75*	-	-
07			100.0	11.5	30.1	1.0	11.9	2.68*	2.53*	-	-
08	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-10-220	23.	2.6	8.0	0.3	1.5	0.55*	0.55*	-	-
09			100.0	11.6	34.9	1.3	6.5	2.39*	2.39*	-	-
10	PASPALUM SACCHAROIDES		-	-	-	-	-	-	-	-	-
11	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-578	27.	2.4	11.1	0.3	1.4	0.59*	0.62*	-	-
12			100.0	9.1	41.4	1.3	5.2	2.20*	2.32*	-	-
13	PASPALUM SPP, PASPALUM		-	-	-	-	-	-	-	-	-
14	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-17-581	28.	4.3	8.6	0.3	2.5	0.73*	0.68*	-	-
15			100.0	15.3	30.5	1.1	8.9	2.57*	2.40*	-	-
16	PASPALUM TRIANAE		-	-	-	-	-	-	-	-	-
17	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-17-582	25.	3.4	7.7	0.4	2.1	0.61*	0.62*	-	-
18			100.0	13.4	30.8	1.6	8.4	2.45*	2.47*	-	-
19	PASPALUM VIRGATUM, TALQUEZAL		-	-	-	-	-	-	-	-	-
20	*AERIAL PART, FRESH, MATURE, (2)	2-17-568	34.	3.2	11.3	0.4	3.6	0.88*	0.85*	-	-
21			100.0	9.5	33.3	1.1	10.6	2.60*	2.51*	-	-
22	PASSIFLORA MOLLISSIMA, PASSIONFLOWER, SOFTLEAF		-	-	-	-	-	-	-	-	-
23	PEANUT CAKE (CFA)		-	-	-	-	-	-	-	-	-
24	*SEE ARACHIS HYPOGAEA, KERNELS, MECH		-	-	-	-	-	-	-	-	-
25	EXTD GRND CAKED, (5)		-	-	-	-	-	-	-	-	-
26	PEANUT HULLS (AAFCO)		-	-	-	-	-	-	-	-	-
27	*SEE ARACHIS HYPOGAEA, HULLS, (1)		-	-	-	-	-	-	-	-	-
28	PEANUT OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
29	*SEE ARACHIS HYPOGAEA, KERNELS, SOLV		-	-	-	-	-	-	-	-	-
30	EXTD GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
31	PENNISETUM CILIARE, BUFFELGRASS		-	-	-	-	-	-	-	-	-
32	*HAY, S-C, (1)	1-10-353	93.	9.3	35.6	3.1	7.3	1.99*	1.98*	-	-
33			100.0	10.0	38.4	3.3	7.9	2.14*	2.14*	-	-
34	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-10-252	21.	2.7	7.2	0.5	2.3	0.49*	0.52*	-	-
35			100.0	12.8	34.5	2.2	11.2	2.37*	2.49*	-	-
36	*LEAVES, FRESH, (2)	2-17-629	-	-	-	-	-	-	-	-	-
37			100.0	13.2	35.2	1.7	7.7	2.34*	2.39*	-	-
38	PENNISETUM CLANDESTINUM, KIKUYUGRASS		-	-	-	-	-	-	-	-	-
39	*AERIAL PART, FRESH	2-10-226	19.	2.1	5.3	0.3	1.6	0.50*	0.50*	-	-
40	FERTILIZED, LATE VEGETATIVE, (2)		100.0	11.2	27.5	1.7	8.3	2.60*	2.62*	-	-
41	PENNISETUM CLANDESTINUM, TRIFOLIUM REPENS,		-	-	-	-	-	-	-	-	-
42	KIKUYUGRASS-CLOVER, WHITE		-	-	-	-	-	-	-	-	-
43	*TRIFOLIUM REPENS,	2-10-236	-	-	-	-	-	-	-	-	-
44	AERIAL PART, FRESH FERTILIZED, (2)		100.0	10.2	27.6	2.3	11.9	2.69*	2.69*	-	-
45	PENNISETUM GLAUCUM, PEARLMILLET		-	-	-	-	-	-	-	-	-
46	*AERIAL PART, FRESH, (2)	2-03-115	23.	3.0	6.0	0.7	1.9	0.64*	0.62*	-	-
47			100.0	12.8	25.5	2.9	8.1	2.74*	2.64*	-	-
48	*AERIAL PART, FRESH, MIDBLOOM, CUT 1, (2)	2-13-710	-	-	-	-	-	-	-	-	-
49			100.0	10.1	25.8	1.1	10.4	2.72*	2.70*	-	-
50	PENNISETUM MEXICANUM, PENNISETUM, MEXICAN		-	-	-	-	-	-	-	-	-
51	*AERIAL PART, FRESH, CUT 4, (2)	2-11-880	54.	4.6	24.8	1.7	2.9	-	-	-	-
52			100.0	8.5	45.9	3.1	5.5	-	-	-	-
53	PENNISETUM PURPUREUM, NAPIERGRASS		-	-	-	-	-	-	-	-	-
54	*AERIAL PART, FRESH, (2)	2-03-166	20.	2.8	6.5	0.5	2.0	0.47*	0.50*	-	-
55			100.0	13.8	32.1	2.3	10.0	2.34*	2.48*	-	-
56	*AERIAL PART, FRESH, 29	2-10-095	18.	2.4	5.3	0.6	1.8	0.27*	0.46*	-	-
57	TO 42 DAYS' GROWTH, (2)		100.0	13.4	29.3	3.6	10.2	1.49*	2.57*	-	-
58	*AERIAL PART, FRESH, 43	2-10-076	16.	2.5	5.4	0.5	1.5	0.36	0.41*	-	-
59	TO 56 DAYS' GROWTH, (2)		100.0	15.0	32.7	3.3	9.0	2.18	2.47*	-	-
60	*AERIAL PART, FRESH, 71	2-10-091	-	-	-	-	-	-	-	-	-
61	TO 84 DAYS' GROWTH, (2)		100.0	-	-	2.9	6.8	2.18	-	-	-
62	*AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-03-158	21.	3.1	6.2	0.5	2.5	0.51*	0.54*	-	-
63			100.0	14.8	29.0	2.4	11.9	2.42*	2.53*	-	-
64	*AERIAL PART, FRESH, MILK STAGE, (2)	2-03-163	32.	2.3	10.2	0.9	3.2	0.82*	0.84*	-	-
65			100.0	7.2	32.2	2.9	10.2	2.59*	2.65*	-	-
66	*AERIAL PART, FRESH	2-10-268	19.	2.5	5.9	0.5	1.9	0.43*	0.49*	-	-
67	FERTILIZED, 29 TO 42 DAYS' GROWTH, (2)		100.0	13.1	30.8	2.7	10.1	2.25*	2.54*	-	-
68	*AERIAL PART, FRESH	2-10-298	17.	1.8	5.5	0.5	1.3	0.31*	0.42*	-	-
69	FERTILIZED, 43 TO 56 DAYS' GROWTH, (2)		100.0	10.7	33.0	3.1	8.1	1.89*	2.53*	-	-
70	*LEAVES, FRESH	2-10-567	28.	3.7	8.5	0.5	2.2	0.68*	0.70*	-	-
71	FERTILIZED, 57 TO 70 DAYS' GROWTH, (2)		100.0	13.1	30.3	1.9	7.7	2.42*	2.49*	-	-
72	*AERIAL PART, ENSILED, (3)	3-03-170	29.	3.4	10.6	0.9	1.7	0.66*	-	-	-
73			100.0	11.6	36.6	3.2	5.9	2.29*	-	-	-
74	PENNISETUM PURPUREUM, MERKERON, NAPIERGRASS		-	-	-	-	-	-	-	-	-
75	*MERKERON, AERIAL PART,	2-11-606	17.	2.6	5.7	0.5	1.7	0.37*	0.42*	-	-
76	FRESH, 43 TO 56 DAYS' GROWTH, (2)		100.0	15.0	33.4	3.1	9.7	2.14*	2.47*	-	-
77	*MERKERON, LEAVES, FRESH, (2)	2-15-498	-	-	-	-	-	-	-	-	-
78			100.0	13.4	29.7	2.0	9.8	2.46*	2.52*	-	-
79	PENNISETUM PURPUREUM, MILLET, NAPIERGRASS		-	-	-	-	-	-	-	-	-
80	*MILLET, AERIAL PART,	2-11-495	15.	2.1	4.9	0.4	1.2	0.31*	0.36*	-	-
81	FRESH, 43 TO 56 DAYS' GROWTH, (2)		100.0	14.4	33.5	2.9	8.2	2.15*	2.45*	-	-
82	PHALARIS ARUNDINACEA, CANARYGRASS, REED		-	-	-	-	-	-	-	-	-
83	*AERIAL PART, FRESH, (2)	2-01-113	25.	2.5	5.6	1.1	4.3	0.87*	0.68*	-	-
84			100.0	10.0	22.0	4.4	17.2	3.44*	2.70*	-	-
85	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-01-107	18.	2.6	4.9	0.4	2.3	0.45*	0.46*	-	-
86			100.0	14.7	27.1	2.3	13.0	2.50*	2.58*	-	-
87	PHALARIS SPP, CANARYGRASS		-	-	-	-	-	-	-	-	-
88	*AERIAL PART, FRESH, (2)	2-10-329	43.	5.0	10.9	0.9	3.4	1.15*	1.14*	-	-
89			100.0	11.7	25.5	2.1	8.0	2.70*	2.67*	-	-
90	PHALARIS TUBEROSA, CANARYGRASS, BULB		-	-	-	-	-	-	-	-	-
91	*HAY, S-C, (1)	1-13-760	-	-	-	-	-	-	-	-	-
92			100.0	14.0	34.1	2.7	3.6	2.07*	2.02*	-	-
93	PHALARIS TUBEROSA, STENOPTERA, HARDINGGRASS		-	-	-	-	-	-	-	-	-
94	*STENOPTERA, AERIAL PART,	2-10-815	21.	-	-	-	3.6	-	-	-	-
95	FRESH FERTILIZED, CUT 2, (2)		100.0	-	-	-	16.8	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	13.2*	13.7*	-	0.13	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-
02	52.8*	54.8*	-	0.50	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	41.9*	43.5*	-	0.53	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
05	45.7*	47.5*	-	0.58	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
06	18.0*	17.0*	-	0.22	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
07	60.8*	57.5*	-	0.73	-	-	-	0.21	-	-	-	-	-	-	-	-	-	-	-
08	12.4*	12.4*	-	0.10	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
09	54.3*	54.1*	-	0.42	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	13.4*	14.1*	-	0.08	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
12	49.9*	52.6*	-	0.31	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	16.5*	15.4*	-	0.15	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
15	58.4*	54.3*	-	0.53	-	-	-	0.29	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	13.9*	14.0*	-	0.08	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
18	55.7*	55.9*	-	0.32	-	-	-	0.21	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	19.9*	19.3*	-	0.06	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
21	58.9*	56.9*	-	0.18	-	-	-	0.29	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	45.1*	45.0*	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-
33	48.6*	46.5*	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-
34	11.1*	11.7*	-	0.04	-	-	-	0.07	0.08	-	-	-	-	-	-	-	-	-	-
35	53.7*	56.4*	-	0.17	-	-	-	0.31	0.40	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	53.0*	54.2*	-	0.48	-	-	-	0.47	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	11.3*	11.3*	-	0.05	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
40	59.0*	59.3*	-	0.28	-	-	-	0.33	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	60.9*	60.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	14.6*	14.0*	-	0.04	-	1.0	6.4	0.04	0.52	-	-	-	-	-	-	-	-	-	-
47	62.2*	59.9*	-	0.18	-	4.1	27.4	0.15	2.22	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	61.8*	61.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	0.08	-	-	-	0.38	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	0.14	-	-	-	0.71	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	10.7*	11.4*	-	0.09	0.184	5.0	17.2	0.05	0.36	6.6	-	2.1	-	-	-	-	-	-	-
55	53.1*	56.3*	-	0.43	0.907	24.9	85.0	0.25	1.78	32.8	-	10.4	-	-	-	-	-	-	-
56	6.1	10.5*	-	0.06	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
57	33.8	58.4*	-	0.34	-	-	-	0.45	-	-	-	-	-	-	-	-	-	-	-
58	6.3	9.2*	-	0.05	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
59	38.4	55.9*	-	0.27	-	-	-	0.38	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	11.7*	12.2*	-	0.08	0.009	5.6	6.9	0.10	0.71	10.4	-	-	-	-	-	-	-	-	-
63	54.9*	57.5*	-	0.38	0.040	26.6	32.6	0.45	3.33	48.9	-	-	-	-	-	-	-	-	-
64	18.7*	19.1*	-	0.11	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
65	58.8*	60.2*	-	0.34	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-
66	9.8	11.1*	-	0.04	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
67	50.9	57.5*	-	0.23	-	-	-	0.37	-	-	-	-	-	-	-	-	-	-	-
68	7.1	9.6*	-	0.04	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
69	42.8	57.4*	-	0.24	-	-	-	0.26	-	-	-	-	-	-	-	-	-	-	-
70	15.3*	15.8*	-	0.11	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
71	54.8*	56.5*	-	0.39	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-
72	15.0*	-	-	0.16	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
73	52.0*	-	-	0.54	-	-	-	0.81	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	8.3*	9.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	48.6*	56.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	55.7*	57.2*	-	0.76	-	-	-	0.35	-	-	-	-	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	7.1*	8.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	48.8*	55.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	19.7*	15.5*	-	0.09	-	-	-	0.08	0.92	-	-	-	-	-	-	-	-	-	-
84	78.0*	61.2*	-	0.36	-	-	-	0.33	3.64	-	-	-	-	-	-	-	-	-	-
85	10.1*	10.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	56.7*	58.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	26.1*	25.8*	-	0.19	-	16.0	112.1	0.06	-	-	-	-	-	-	-	-	-	-	-
89	61.1*	60.5*	-	0.45	-	37.5	262.5	0.14	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	46.9*	45.8*	-	0.16	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	0.03	-	3.3	12.1	0.10	0.77	6.4	-	-	-	-	-	-	-	-	-
95	-	-	-	0.16	-	15.4	56.6	0.47	3.60	30.0	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	PHASEOLUS VULGARIS, BEAN, KIDNEY		-	-	-	-	-	-	-	-	-
02	-PODS W SEEDS, S-C, (1)	1-11-713	82.	7.6	38.2	1.7	6.2	1.65*	1.73*	-	-
03			100.0	9.3	46.7	2.1	7.6	2.02*	2.12*	-	-
04	-SEEDS, (5)	5-00-600	90.	3.8	4.6	2.5	21.7	3.92*	3.07*	-	-
05			100.0	4.2	5.0	2.8	24.0	4.33*	3.40*	-	-
06	-SEEDS, COOKED, (5)	5-13-480	11.	0.5	1.6	0.2	2.8	0.35*	0.36*	-	-
07			100.0	4.6	14.8	1.9	25.9	3.2[illegible]*	3.31*	-	-
08	PHLEUM PRATENSE, TIMOTHY		-	-	-	-	-	-	-	-	-
09	-AERIAL PART, FRESH, EARLY BLOOM, CUT 1, (2)	2-10-808	21.	1.6	6.6	0.6	1.4	0.56*	0.56*	-	-
10			100.0	7.7	31.0	2.9	6.7	2.61*	2.61*	-	-
11	PIPTADENIA MONILIFORMS		-	-	-	-	-	-	-	-	-
12	-BROWSE, FRESH, LATE VEGETATIVE, (2)	2-13-279	43.	1.7	9.9	1.6	6.8	1.67*	1.32*	-	-
13			100.0	3.9	23.0	3.7	15.8	3.86*	3.06*	-	-
14	PISUM SATIVUM, PEA, GARDEN		-	-	-	-	-	-	-	-	-
15	-SEEDS, (5)	5-08-482	92.	2.2	6.0	1.0	25.2	-	3.54*	-	-
16			100.0	2.4	6.6	1.1	27.5	-	3.86*	-	-
17	PISUM SPP, PEA		-	-	-	-	-	-	-	-	-
18	-PODS, ENSILED, (3)	3-11-971	23.	0.9	6.0	0.7	3.4	0.63*	0.70*	-	-
19			100.0	3.9	26.6	2.9	15.1	2.79*	3.06*	-	-
20	-SEEDS, GRND, (5)	5-03-598	89.	3.0	8.9	1.3	22.3	3.50*	3.32*	3322.*	2153.
21			100.0	3.4	10.0	1.5	25.1	3.93*	3.73*	3729.*	2418.
22	POA ANNUA, BLUEGRASS, ANNUAL		-	-	-	-	-	-	-	-	-
23	-AERIAL PART, FRESH, (2)	2-10-806	-	-	-	-	-	-	-	-	-
24			100.0	16.9	27.9	4.4	10.7	2.35*	2.52*	-	-
25	POLYPODIUM LEPIDOPTERIS, POLYPODY, LEPIDOPTERIS		-	-	-	-	-	-	-	-	-
26	-AERIAL PART, FRESH, (2)	2-11-066	-	-	-	-	-	-	-	-	-
27			100.0	6.1	23.9	3.0	14.2	3.34*	2.94*	-	-
28	PORLIERIA AUGUSTIFOLIA, PORLIERIA, TEXAS		-	-	-	-	-	-	-	-	-
29	-BROWSE, FRESH, (2)	2-13-334	61.	9.8	15.3	2.9	11.1	1.47*	1.70*	-	-
30			100.0	15.9	25.0	4.7	18.1	2.40*	2.77*	-	-
31	POULTRY		-	-	-	-	-	-	-	-	-
32	-FEATHERS, HYDROLYZED DEHY GRND, MN	5-03-795	92.	4.2	1.1	3.1	84.7	-	2.75*	2755.*	2354.
33	75% OF PROTEIN DIGESTIBLE, (5)		100.0	4.6	1.1	3.4	91.6	-	2.97*	2980.*	2546.
34	HYDROLYZED POULTRY FEATHERS (AAFCO)		-	-	-	-	-	-	-	-	-
35	FEATHER MEAL		-	-	-	-	-	-	-	-	-
36	PROBOSCIDEA ALTHEAEFOLIA, DEVILSCLAW,		-	-	-	-	-	-	-	-	-
37	ALTHEAEFOLIA		-	-	-	-	-	-	-	-	-
38	-ROOTS, DEHY, (4)	4-11-721	95.	2.9	2.5	0.7	2.2	-	3.61*	3809.*	-
39			100.0	3.0	2.6	0.7	2.3	-	3.79*	3997.*	-
40	PROSOPIS CHILENSIS, MESQUITE, COMMON		-	-	-	-	-	-	-	-	-
41	-SEEDS W PODS, (1)	1-10-398	93.	3.5	19.8	1.3	9.0	2.32*	2.41*	-	-
42			100.0	3.8	21.3	1.4	9.7	2.50*	2.60*	-	-
43	-BROWSE W SEEDS, GRND, MATURE, (2)	2-13-714	-	-	-	-	-	-	-	-	-
44			100.0	3.3	34.7	1.0	10.9	2.50*	2.63*	-	-
45	-SEEDS, (4)	4-03-085	81.	3.1	14.3	1.7	16.8	-	2.56*	1945.*	-
46			100.0	3.9	17.8	2.1	20.9	-	3.18*	2415.*	-
47	PRUNUS AMYGDALUS, ALMOND		-	-	-	-	-	-	-	-	-
48	-KERNELS WO SKINS, (4)	4-13-319	96.	3.4	3.1	54.2	17.4	-	-	-	-
49			100.0	3.5	3.2	56.4	18.1	-	-	-	-
50	PRUNUS PERSICA, PEACHES		-	-	-	-	-	-	-	-	-
51	-FRUIT WO PITS, FRESH, (4)	4-03-614	19.	0.4	0.7	0.2	0.9	-	0.71*	737.*	-
52			100.0	2.4	4.0	1.1	4.7	-	3.79*	3946.*	-
53	PUERARIA JAVANICA, KUDZU, JAVANICA		-	-	-	-	-	-	-	-	-
54	-AERIAL PART, FRESH, LATE VEGETATIVE, (2)	2-13-234	23.	1.6	8.6	0.6	3.8	0.60*	0.63*	-	-
55			100.0	6.7	36.7	2.5	16.1	2.56*	2.69*	-	-
56	PUERARIA PHASEOLOIDES, KUDZU, TROPICAL		-	-	-	-	-	-	-	-	-
57	-AERIAL PART, FRESH, (2)	2-10-228	25.	2.0	9.2	1.0	4.1	0.60*	0.69*	-	-
58			100.0	8.0	37.1	3.9	16.3	2.40*	2.77*	-	-
59	-LEAVES, FRESH, (2)	2-11-974	-	-	-	-	-	-	-	-	-
60			100.0	8.7	34.4	1.7	17.2	2.72*	2.64*	-	-
61	-STEMS, FRESH, 43 TO 56 DAYS' GROWTH, (2)	2-11-976	-	-	-	-	-	-	-	-	-
62			100.0	-	44.4	2.1	10.1	-	-	-	-
63	PUERARIA THUNBERGIANA, KUDZU, THUNBERG		-	-	-	-	-	-	-	-	-
64	-AERIAL PART, FRESH, (2)	2-10-237	23.	2.9	6.7	0.9	3.8	0.57*	0.62*	-	-
65			100.0	12.8	29.1	4.0	16.5	2.49*	2.73*	-	-
66	RANUNCULUS AQUATILIS, CAPILLACEUS, BUTTERCUP,		-	-	-	-	-	-	-	-	-
67	WATERCROWFOOT HAIRLEAF		-	-	-	-	-	-	-	-	-
68	-CAPILLACEUS	2-11-992	13.	3.7	2.1	0.1	1.8	0.27*	0.26*	-	-
69	WATERCROWFOOT HAIRLEAF, AERIAL PART,		100.0	28.4	16.2	1.1	14.1	2.08*	1.99*	-	-
70	FRESH, (2)		-	-	-	-	-	-	-	-	-
71	RAPESEED MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
72	-SEE BRASSICA SPP, SEEDS, MECH EXTD		-	-	-	-	-	-	-	-	-
73	GRND, (5)		-	-	-	-	-	-	-	-	-
74	RAPESEED MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
75	-SEE BRASSICA SPP, SEEDS, SOLV EXTD		-	-	-	-	-	-	-	-	-
76	GRND, (5)		-	-	-	-	-	-	-	-	-
77	RAPESEED OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
78	-SEE BRASSICA SPP, SEEDS, MECH EXTD		-	-	-	-	-	-	-	-	-
79	GRND, (5)		-	-	-	-	-	-	-	-	-
80	RAPESEED OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
81	-SEE BRASSICA SPP, SEEDS, SOLV EXTD		-	-	-	-	-	-	-	-	-
82	GRND, (5)		-	-	-	-	-	-	-	-	-
83	RAPHANUS SATIVVS, RADISH, GARDEN		-	-	-	-	-	-	-	-	-
84	RATANY		-	-	-	-	-	-	-	-	-
85	-SEE KRAMERIA, AERIAL PART, FRESH,		-	-	-	-	-	-	-	-	-
86	EARLY VEGETATIVE, (2)		-	-	-	-	-	-	-	-	-
87	RICE BRAN (AAFCO)		-	-	-	-	-	-	-	-	-
88	-SEE ORYZA SATIVA, BRAN W GERM, DRY		-	-	-	-	-	-	-	-	-
89	MILLED, MX 13% FIBER CALCIUM CARBONATE		-	-	-	-	-	-	-	-	-
90	DECLARED ABOVE 3% MN, (4)		-	-	-	-	-	-	-	-	-
91	RICE GRAIN, BROWN		-	-	-	-	-	-	-	-	-
92	-SEE ORYZA SATIVA, GROATS, (4)		-	-	-	-	-	-	-	-	-
93	RICE GRAIN WITHOUT HULLS		-	-	-	-	-	-	-	-	-
94	-SEE ORYZA SATIVA, GROATS, (4)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	37.4*	39.3*	-	0.58	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-
03	45.8*	48.0*	-	0.71	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-
04	88.9*	69.7	-	0.18	-	-	-	0.44	0.99	-	-	21.1	-	-	2.2	-	-	-	-
05	98.3*	77.1	-	0.20	-	-	-	0.49	1.10	-	-	23.3	-	-	2.4	-	-	-	-
06	8.1*	8.1*	-	0.05	-	-	-	0.04	-	-	-	9.6	-	-	2.3	-	-	-	-
07	74.5*	75.1*	-	0.46	-	-	-	0.37	-	-	-	88.9	-	-	21.3	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	12.7*	12.7*	-	0.09	-	1.7	30.4	0.06	0.47	-	-	-	-	-	-	-	-	-	-
10	59.2*	59.3*	-	0.41	-	7.9	142.0	0.26	2.21	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	37.8*	29.9*	-	0.28	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
13	87.5*	69.4*	-	0.66	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	80.2*	-	0.10	-	-	-	0.41	-	-	-	20.5	-	-	2.2	-	-	-	-
16	-	87.5*	-	0.11	-	-	-	0.45	-	-	-	22.3	-	-	2.4	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	14.4*	15.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	63.2*	69.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	79.4*	75.3	75.3	0.16	-	-	-	0.42	0.39	29.4	483.	36.7	9.9	-	1.6	0.17	1.57	0.30	0.24
21	89.1*	84.5	84.6	0.18	-	-	-	0.48	0.44	33.0	542.	41.2	11.1	-	1.8	0.19	1.76	0.34	0.26
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	53.4*	57.2*	-	1.00	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	75.6*	66.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	33.4*	38.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	54.4*	62.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	62.3*	62.5	0.25	-	-	-	0.50	0.30	-	888.	26.9	10.5	-	2.1	3.18	1.67	0.51	0.50
33	-	67.4*	67.6	0.27	-	-	-	0.54	0.33	-	961.	29.1	11.3	-	2.3	3.44	1.80	0.55	0.54
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	81.9*	86.4*	0.15	-	30.9	0.6	-	-	-	-	-	-	-	-	-	-	-	-
39	-	85.9*	90.7*	0.16	-	32.4	0.6	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	52.5*	54.7*	-	0.31	-	18.1	13.3	0.26	-	-	-	-	-	-	-	-	-	-	-
42	56.7*	59.0*	-	0.33	-	19.5	14.4	0.28	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	56.7*	59.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.46	-	0.10
45	-	58.1*	44.1*	0.30	-	21.3	17.2	0.45	-	-	-	-	-	-	-	-	-	-	-
46	-	72.1*	54.8*	0.38	-	26.4	21.4	0.55	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	0.21	-	-	-	0.42	-	-	-	36.9	-	-	4.9	-	-	-	-
49	-	-	-	0.22	-	-	-	0.44	-	-	-	38.4	-	-	5.1	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	16.0*	16.7*	0.01	-	-	-	0.03	-	-	-	5.0	-	-	0.7	-	-	-	-
52	-	85.9*	89.5*	0.05	-	-	-	0.14	-	-	-	26.8	-	-	4.0	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	13.5*	14.2*	-	0.24	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
55	58.1*	61.1*	-	1.05	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	13.5*	15.6*	-	0.11	-	4.9	74.0	0.04	0.27	14.2	-	-	-	-	-	-	-	-	-
58	54.3*	62.9*	-	0.44	-	19.7	297.8	0.15	1.10	57.0	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	61.7*	59.8*	-	0.75	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	0.76	-	-	-	0.23	1.60	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	12.9*	14.1*	-	0.23	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
65	56.5*	61.9*	-	1.02	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	6.2*	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	47.1*	45.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	RICE POLISH (CFA)		-	-	-	-	-	-	-	-	-
02	*SEE ORYZA SATIVA, POLISHINGS, DEHY,		-	-	-	-	-	-	-	-	-
03	(4)		-	-	-	-	-	-	-	-	-
04	RICE, WHITE, POLISHED		-	-	-	-	-	-	-	-	-
05	*SEE ORYZA SATIVA, GROATS, POLISHED,		-	-	-	-	-	-	-	-	-
06	(4)		-	-	-	-	-	-	-	-	-
07	RORIPPA NASTURTIUM-AQUATICUM, WATERCRESS		-	-	-	-	-	-	-	-	-
08	*AERIAL PART, FRESH, (2)	2-13-402	11.	1.6	1.2	0.3	4.2	-	-	-	-
09			100.0	14.0	10.5	2.6	36.8	-	-	-	-
10	SACCHAROMYCES CEREVISIAE, YEAST, BREWERS		-	-	-	-	-	-	-	-	-
11	SACCHAROMYCES		-	-	-	-	-	-	-	-	-
12	*DEHY GRND, (7)	7-05-528	89.	6.9	-	0.8	46.2	-	-	-	-
13	BREWERS DRIED YEAST (CFA)		100.0	7.7	-	0.9	51.9	-	-	-	-
14	*DEHY GRND, MN 40%	7-05-527	93.	6.7	2.7	1.3	44.4	-	3.16*	3073.*	1994.
15	PROTEIN, (7)		100.0	7.2	2.9	1.4	48.0	-	3.41*	3319.*	2153.
16	BREWERS DRIED YEAST (AAFCO)		-	-	-	-	-	-	-	-	-
17	SACCHARUM OFFICINARUM, SUGARCANE		-	-	-	-	-	-	-	-	-
18	*AERIAL PART, S-C, (1)	1-04-685	88.	3.1	25.9	2.1	3.6	2.24*	2.15*	-	-
19			100.0	3.5	29.3	2.4	4.1	2.54*	2.43*	-	-
20	*LEAVES W TOP OF AERIAL PART, FRESH, (2)	2-04-692	26.	1.5	7.9	0.9	0.9	0.75*	0.69*	-	-
21	STRIP CANE		100.0	5.9	30.4	3.4	3.5	2.91*	2.60*	-	-
22	*TOP OF AERIAL PART,	2-13-252	-	-	-	-	-	-	-	-	-
23	FRESH FERTILIZED, MATURE, (2)		100.0	9.0	31.7	2.4	6.4	2.43*	2.56*	-	-
24	*AERIAL PART, ENSILED, POST RIPE, (3)	3-17-516	32.	4.2	8.6	0.5	2.6	0.78*	0.76*	-	-
25			100.0	13.1	27.3	1.5	8.1	2.46*	2.39*	-	-
26	*MOLASSES, (4)	4-13-251	73.	8.5	0.3	0.3	2.4	-	-	2650.*	-
27			100.0	11.7	0.4	0.3	3.4	-	-	3648.*	-
28	*MOLASSES, MN 48% INVERT	4-04-696	77.	8.0	7.7	0.2	4.2	3.27*	2.42*	2593.*	2042.
29	SUGAR MN 79.5 DEGREES BRIX, (4)		100.0	10.3	9.9	0.3	5.4	4.23*	3.13*	3359.*	2645.
30	CANE MOLASSES (AAFCO)		-	-	-	-	-	-	-	-	-
31	MOLASSES, CANE		-	-	-	-	-	-	-	-	-
32	SACCHARUM SINENSIS, SWEETCANE, JAPANESE		-	-	-	-	-	-	-	-	-
33	*AERIAL PART, FRESH, (2)	2-13-001	24.	2.3	8.9	0.7	1.5	0.50*	0.59*	-	-
34			100.0	9.5	37.2	2.7	6.5	2.09*	2.46*	-	-
35	*AERIAL PART,	2-11-085	19.	2.1	6.5	0.6	2.1	0.43*	0.48*	-	-
36	FRESH, 15 TO 28 DAYS' GROWTH, (2)		100.0	11.3	34.6	3.0	10.9	2.29*	2.55*	-	-
37	SACCHARUM SPP, SWEETCANE		-	-	-	-	-	-	-	-	-
38	SAFFLOWER OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
39	*SEE CARTHAMUS TINCTORIUS, SEEDS, MECH		-	-	-	-	-	-	-	-	-
40	EXTD GRND, (5)		-	-	-	-	-	-	-	-	-
41	SAFFLOWER OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
42	*SEE CARTHAMUS TINCTORIUS, SEEDS, MECH		-	-	-	-	-	-	-	-	-
43	EXTD GRND, (5)		-	-	-	-	-	-	-	-	-
44	SAFFLOWER OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
45	*SEE CARTHAMUS TINCTORIUS, SEEDS, SOLV		-	-	-	-	-	-	-	-	-
46	EXTD GRND, (5)		-	-	-	-	-	-	-	-	-
47	SAFFLOWER SEED, MECHANICAL EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
48	*SEE CARTHAMUS TINCTORIUS, SEEDS, MECH		-	-	-	-	-	-	-	-	-
49	EXTD GRND, (5)		-	-	-	-	-	-	-	-	-
50	SAFFLOWER SEED, SOLVENT EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
51	*SEE CARTHAMUS TINCTORIUS, SEEDS, SOLV		-	-	-	-	-	-	-	-	-
52	EXTD GRND, (5)		-	-	-	-	-	-	-	-	-
53	SCIRPUS RIGIDUS, BULRUSH, RIGIDUS		-	-	-	-	-	-	-	-	-
54	*AERIAL PART, FRESH, (2)	2-11-516	-	-	-	-	-	-	-	-	-
55			100.0	3.1	34.1	2.2	7.0	2.42*	2.64*	-	-
56	SECALE CEREALE, RYE		-	-	-	-	-	-	-	-	-
57	*AERIAL PART, FRESH, MILK STAGE, CUT 1, (2)	2-13-722	-	-	-	-	-	-	-	-	-
58			100.0	7.0	29.6	1.8	9.3	2.63*	2.69*	-	-
59	*GRAIN, (4)	4-04-047	89.	1.7	2.2	1.5	11.5	3.19*	3.35*	3459.*	1921.
60			100.0	1.9	2.5	1.7	12.9	3.59*	3.77*	3890.*	2160.
61	SELACHII (ORDER), FISH, SHARK		-	-	-	-	-	-	-	-	-
62	SESAME OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
63	*SEE SESAMUM INDICUM, SEEDS, MECH EXTD		-	-	-	-	-	-	-	-	-
64	GRND, (5)		-	-	-	-	-	-	-	-	-
65	SESAMUM INDICUM, SESAME		-	-	-	-	-	-	-	-	-
66	*AERIAL PART, DEHY, (1)	1-11-534	92.	4.6	90.2	1.5	3.6	-	2.05*	-	-
67			100.0	5.0	54.7	1.6	3.9	-	2.23*	-	-
68	*SEEDS, MECH EXTD GRND, (5)	5-04-220	93.	10.1	7.0	5.0	43.3	2.98*	3.16*	3100.*	2378.
69	SESAME OIL MEAL, EXPELLER EXTRACTED		100.0	10.9	7.6	5.4	46.7	3.21*	3.41*	3344.*	2566.
70	*SEEDS, MECH EXTD GRND CAKED, (5)	5-11-533	93.	11.1	5.8	7.9	41.3	3.16*	3.26*	-	-
71			100.0	12.0	6.3	8.5	44.6	3.41*	3.52*	-	-
72	*SEEDS, SOLV EXTD GRND, (5)	5-33-906	92.	11.8	6.5	2.1	45.3	2.71*	2.89*	-	-
73			100.0	12.8	7.0	2.2	49.0	2.93*	3.12*	-	-
74	SETARIA GENICULATA, BRISTLEGRASS, KNOTROOT		-	-	-	-	-	-	-	-	-
75	*AERIAL PART, FRESH, FULL BLOOM, (2)	2-10-804	44.	5.3	14.1	0.2	1.8	1.15*	1.04*	-	-
76			100.0	11.9	31.8	0.5	4.0	2.60*	2.36*	-	-
77	SETARIA ITALICA, MILLET, FOXTAIL		-	-	-	-	-	-	-	-	-
78	*AERIAL PART, FRESH, MIDBLOOM, CUT 1, (2)	2-13-717	-	-	-	-	-	-	-	-	-
79			100.0	11.0	23.2	1.9	10.6	2.84*	2.78*	-	-
80	SETARIA POIRETIANA, PALMGRASS, POIRET		-	-	-	-	-	-	-	-	-
81	*AERIAL PART, FRESH, (2)	2-10-427	-	-	-	-	-	-	-	-	-
82			100.0	9.2	29.5	1.6	15.1	2.70*	2.67*	-	-
83	SETARIA SPHACELATA, BRISTLEGRASS, SPHACELATA		-	-	-	-	-	-	-	-	-
84	*AERIAL PART,	2-11-289	21.	2.4	8.3	0.6	1.1	0.40*	0.50*	-	-
85	FRESH, 141 TO 154 DAYS' GROWTH, (2)		100.0	11.3	39.3	2.8	5.3	1.90*	2.39*	-	-
86	*AERIAL PART, FRESH, EARLY BLOOM, CUT 1, (2)	2-10-795	17.	1.6	6.3	0.4	1.5	0.39*	0.43*	-	-
87			100.0	9.4	36.1	2.2	8.6	2.27*	2.50*	-	-
88	SETARIA SPLENDIDA, BRISTLEGRASS, SPLENDIDA		-	-	-	-	-	-	-	-	-
89	*AERIAL PART, FRESH, EARLY BLOOM, CUT 1, (2)	2-10-794	12.	1.5	4.0	0.4	2.0	0.29*	0.32*	-	-
90			100.0	12.6	32.7	3.2	16.8	2.39*	2.66*	-	-
91	SETARIA SPP, MILLET		-	-	-	-	-	-	-	-	-
92	*GRAIN, (4)	4-03-098	90.	2.9	6.4	4.0	12.2	3.06*	2.44*	3245.*	-
93			100.0	3.2	7.2	4.5	13.5	3.41*	2.72*	3611.*	-
94	SHORTS, MX 8% FIBER (CFA)		-	-	-	-	-	-	-	-	-
95	*SEE TRITICUM SPP, FLOUR BY-PRODUCT,		-	-	-	-	-	-	-	-	-
96	COARSE SIFTED, MX 7% FIBER, (4)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	0.18	-	-	-	0.07	-	-	-	10.0	-	-	2.1	-	-	-	-
09	-	-	-	1.58	-	-	-	0.61	-	-	-	87.7	-	-	18.4	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	0.01	-	-	-	0.01	-	-	-	-	-	-	-	0.0-	0.46	0.03	0.08
13	-	-	-	0.01	-	-	-	0.01	-	-	-	-	-	-	-	0.04	0.52	0.03	0.09
14	-	71.7*	69.7	0.25	0.181	32.7	5.2	1.40	1.70	38.6	3983.	448.4	109.5	-	37.0	0.50	2.98	0.70	0.49
15	-	77.4*	75.3	0.27	0.196	35.4	5.6	1.51	1.81	41.7	4302.	484.3	118.2	-	39.9	0.54	3.22	0.76	0.53
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	50.8*	48.8*	-	-	-	-	-	-	-	-	-	9.8	-	-	2.1	-	-	-	-
19	57.5*	55.2*	-	-	-	-	-	-	-	-	-	11.1	-	-	2.4	-	-	-	-
20	17.1*	15.3*	-	0.12	-	-	-	0.13	-	-	-	1.8	-	-	0.1	-	-	-	-
21	65.9*	59.0*	-	0.47	-	-	-	0.51	-	-	-	6.8	-	-	0.4	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	55.0*	58.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	17.7*	17.2*	-	0.14	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
25	55.8*	54.3*	-	0.44	-	-	-	0.19	-	-	-	-	-	-	-	-	-	-	-
26	-	-	60.1*	0.65	-	8.2	51.8	0.17	4.60	112.1	-	-	-	-	-	-	-	-	-
27	-	-	82.7*	0.89	-	11.3	71.3	0.23	6.34	154.3	-	-	-	-	-	-	-	-	-
28	74.1	54.9	58.8	0.84	0.939	62.3	43.0	0.09	2.60	-	843.	34.8	39.5	-	3.0	-	-	-	-
29	96.0	71.1	76.2	1.09	1.216	80.6	55.8	0.11	3.37	-	1092.	45.0	51.1	-	3.8	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	11.3*	13.3*	-	0.04	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-
34	47.5*	55.8*	-	0.16	-	-	-	0.27	-	-	-	-	-	-	-	-	-	-	-
35	9.8*	10.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	51.9*	57.8*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	58.9*	59.9*	-	0.21	0.057	6.3	114.5	0.07	-	15.1	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	59.6*	60.9*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	72.5*	75.9	78.5	0.07	-	.3	59.5	0.32	0.48	30.6	438.	14.0	8.0	-	1.5	0.16	0.45	0.18	0.14
60	81.5*	85.4	88.2	0.08	-	7.1	66.9	0.36	0.54	34.4	493.	15.8	9.0	-	1.7	0.17	0.50	0.20	0.16
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	-	46.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	-	50.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	67.6*	71.7*	70.3	2.49	-	-	47.9	1.35	1.20	99.7	1536.	29.8	6.1	-	3.6	0.59	1.30	1.38	0.80
69	72.9*	77.3*	75.9	2.68	-	-	51.7	1.46	1.29	107.5	1657.	32.1	6.6	-	3.8	0.64	1.40	1.48	0.86
70	71.6*	73.9*	-	1.76	-	233.3	74.1	1.00	1.72	-	-	95.5	-	-	4.4	0.60	1.66	2.38	0.58
71	77.4*	79.9*	-	1.90	-	252.0	80.0	1.08	1.86	-	-	103.1	-	-	4.7	0.65	1.80	2.57	0.62
72	61.4*	65.5*	-	2.47	-	242.2	58.2	1.47	1.75	-	-	-	-	-	-	0.55	1.14	0.91	0.54
73	66.5*	70.8*	-	2.67	-	262.0	63.0	1.59	1.89	-	-	-	-	-	-	0.60	1.23	0.99	0.58
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	26.1*	23.7*	-	0.08	-	-	-		-	-	-	-	-	-	-	-	-	-	-
76	58.9*	53.6*	-	0.18	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	64.4*	63.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	61.2*	60.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	9.0*	11.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	43.0*	54.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	9.0*	9.9*	-	0.05	-	2.1	20.9	0.02	0.02	-	-	-	-	-	-	-	-	-	-
87	51.4*	56.6*	-	0.30	-	12.1	120.0	0.13	0.11	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	6.6*	7.3*	-	0.05	-	4.4	17.7	0.05	0.02	-	-	-	-	-	-	-	-	-	-
90	54.2*	60.4*	-	0.44	-	36.0	145.9	0.38	0.18	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	69.5*	55.4	73.6*	0.05	0.020	9.8	13.2	0.28	0.43	-	358.	23.6	3.3	-	0.7	-	-	-	-
93	77.3*	61.6	81.9*	0.06	0.022	10.9	14.7	0.31	0.48	-	398.	26.5	3.7	-	0.8	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	SIDEROXYLON TEMPISQUE, JUNGLEPLUM, TEMPISQUE		-	-	-	-	-	-	-	-	-
02	SKIMMILK, CENTRIFUGAL		-	-	-	-	-	-	-	-	-
03	-SEE BOS SPP, MILK, SKIMMED		-	-	-	-	-	-	-	-	-
04	CENTRIFUGAL, (5)		-	-	-	-	-	-	-	-	-
05	SKIMMILK, DRIED		-	-	-	-	-	-	-	-	-
06	-SEE BOS SPP, MILK, SKIMMED DEHY, MX		-	-	-	-	-	-	-	-	-
07	8% MOISTURE, (5)		-	-	-	-	-	-	-	-	-
08	SOLANUM TUBEROSUM, POTATO		-	-	-	-	-	-	-	-	-
09	-LEAVES, FRESH, (2)	2-11-728	14.	2.7	3.4	0.7	2.2	-	0.37*	-	-
10			100.0	19.5	24.6	5.4	15.7	-	2.66*	-	-
11	-ROOTS, COOKED, (4)	4-03-784	24.	1.3	0.7	0.1	2.3	0.70*	0.78*	934.*	-
12			100.0	5.3	3.1	0.3	9.6	2.87*	3.22*	3853.*	-
13	SOLANUM TUBEROSUM, POTATO, WHITE		-	-	-	-	-	-	-	-	-
14	SOLVENT EXTRACTED LINSEED MEAL (CFA)		-	-	-	-	-	-	-	-	-
15	-SEE LINUM USITATISSIMUM COMMON,		-	-	-	-	-	-	-	-	-
16	SEEDS, SOLV EXTD GRND, MX 10% FIBER,		-	-	-	-	-	-	-	-	-
17	(5)		-	-	-	-	-	-	-	-	-
18	SOLVENT EXTRACTED PEANUT MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
19	-SEE ARACHIS HYPOGAEA, KERNELS, SOLV		-	-	-	-	-	-	-	-	-
20	EXTD GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
21	SOLVENT EXTRACTED RICE BRAN (AAFCO)		-	-	-	-	-	-	-	-	-
22	-SEE ORYZA SATIVA, BRAN W GERM, SOLV		-	-	-	-	-	-	-	-	-
23	EXTD GRND, MN 14% PROTEIN MX 14%		-	-	-	-	-	-	-	-	-
24	FIBER, (4)		-	-	-	-	-	-	-	-	-
25	SOLVENT EXTRACTED SOY FLOUR (AAFCO)		-	-	-	-	-	-	-	-	-
26	-SEE GLYCINE MAX, FLOUR, SOLV EXTD		-	-	-	-	-	-	-	-	-
27	GRND FINE SIFTED, MX 3% FIBER, (5)		-	-	-	-	-	-	-	-	-
28	SOLVENT EXTRACTED SOY GRITS (AAFCO)		-	-	-	-	-	-	-	-	-
29	-SEE GLYCINE MAX, FLOUR, SOLV EXTD		-	-	-	-	-	-	-	-	-
30	GRND FINE SIFTED, MX 3% FIBER, (5)		-	-	-	-	-	-	-	-	-
31	SORGHUM ALNUM, SORGHUM, PERENNIAL		-	-	-	-	-	-	-	-	-
32	-AERIAL PART, FRESH, (2)	2-11-707	34.	3.7	8.9	0.5	2.2	0.89*	0.89*	-	-
33			100.0	10.9	26.6	1.6	6.6	2.64*	2.64*	-	-
34	SORGHUM FODDER, SUN-CURED		-	-	-	-	-	-	-	-	-
35	-SEE SORGHUM VULGARE, AERIAL PART,		-	-	-	-	-	-	-	-	-
36	S-C, (1)		-	-	-	-	-	-	-	-	-
37	SORGHUM HALEPENSE, SORGHUM, JOHNSONGRASS		-	-	-	-	-	-	-	-	-
38	-AERIAL PART, FRESH, EARLY BLOOM, (2)	2-11-593	27.	2.5	9.5	0.5	2.4	0.62*	0.66*	-	-
39			100.0	9.4	35.7	1.9	9.0	2.34*	2.49*	-	-
40	SORGHUM VULGARE, SORGHUM		-	-	-	-	-	-	-	-	-
41	-AERIAL PART, S-C, (1)	1-07-960	91.	9.0	30.1	1.6	3.8	1.99*	1.96*	-	-
42	SORGHUM FODDER, SUN-CURED		100.0	9.9	33.3	1.8	4.2	2.19*	2.16*	-	-
43	-HEADS, S-C, (1)	1-11-701	89.	5.2	9.0	2.7	9.2	-	-	-	-
44			100.0	5.9	10.1	3.1	10.4	-	-	-	-
45	-AERIAL PART, FRESH, EARLY BLOOM, (2)	2-11-704	21.	1.9	6.7	0.4	2.7	0.55*	0.56*	-	-
46			100.0	9.1	31.5	2.0	12.8	2.58*	2.63*	-	-
47	-AERIAL PART, FRESH, DOUGH STAGE, (2)	2-04-314	23.	1.8	8.9	0.3	1.9	0.55*	0.55*	-	-
48			100.0	8.0	39.3	1.1	8.5	2.42*	2.42*	-	-
49	-AERIAL PART, ENSILED, MILK STAGE, (3)	3-10-233	27.	2.2	9.4	0.5	1.7	0.64*	0.63*	-	-
50			100.0	8.3	35.5	1.8	6.4	2.40*	2.38*	-	-
51	-GRAIN, (4)	4-04-327	87.	2.3	3.7	2.9	9.4	2.98*	2.70*	3253.*	-
52			100.0	2.6	4.2	3.3	10.8	3.42*	3.10*	3733.*	-
53	SORGHUM VULGARE, SORGHUM, GRAIN VARIETY		-	-	-	-	-	-	-	-	-
54	-GRAIN, (4)	4-04-383	88.	2.1	2.3	3.1	8.9	3.06*	3.36*	3318.*	3370.
55			100.0	2.4	2.6	3.5	10.0	3.46*	3.79*	3751.*	3810.
56	SORGHUM VULGARE, SORGHUM, SORDAN 67		-	-	-	-	-	-	-	-	-
57	-AERIAL PART, FRESH, (2)	2-11-805	17.	1.6	5.6	0.3	1.8	0.42*	0.43*	-	-
58			100.0	9.5	33.2	1.5	10.4	2.50*	2.54*	-	-
59	SORGHUM VULGARE, SORGHUM, SUDAX SXII		-	-	-	-	-	-	-	-	-
60	-AERIAL PART, FRESH, DOUGH STAGE, CUT 1, (2)	2-13-731	-	-	-	-	-	-	-	-	-
61			100.0	9.4	32.0	2.4	9.6	2.47*	2.59*	-	-
62	SORGHUM VULGARE, SORGHUM SUDANGRASS CROSS		-	-	-	-	-	-	-	-	-
63	-AERIAL PART, FRESH, CUT 1, (2)	2-11-859	14.	1.6	5.4	0.4	1.0	0.29*	0.35*	-	-
64			100.0	11.1	38.0	2.6	7.1	2.06*	2.43*	-	-
65	SORGHUM VULGARE, CAFFRORUM, SORGHUM, KAFIR		-	-	-	-	-	-	-	-	-
66	-CAFFRORUM KAFIR, GRAIN, (4)	4-04-428	89.	1.7	3.2	2.9	10.4	1.65*	3.55*	3629.*	3485.
67			100.0	1.9	3.6	3.2	11.7	1.85*	3.98*	4070.*	3908.
68	SORGHUM VULGARE, SUBGLABRESCENS, SORGHUM, MILO		-	-	-	-	-	-	-	-	-
69	-SUBGLABRESCENS MILO, GRAIN, (4)	4-04-444	89.	1.7	2.3	2.9	10.2	3.15*	3.71*	3407.*	2440.
70			100.0	1.9	2.6	3.2	11.4	3.55*	4.17*	3833.*	2745.
71	SORGHUM VULGARE, TECHNICUM, SORGHUM, BROOMCORN		-	-	-	-	-	-	-	-	-
72	SOYBEAN CAKE (CFA)		-	-	-	-	-	-	-	-	-
73	-SEE GLYCINE MAX, SEEDS, MECH EXTD		-	-	-	-	-	-	-	-	-
74	GRND CAKED, (5)		-	-	-	-	-	-	-	-	-
75	SOYBEAN MEAL, DEHULLED, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
76	(AAFCO)		-	-	-	-	-	-	-	-	-
77	-SEE GLYCINE MAX, SEEDS NO HULLS, SOLV		-	-	-	-	-	-	-	-	-
78	EXTD GRND, MX 3% FIBER, (5)		-	-	-	-	-	-	-	-	-
79	SOYBEAN MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
80	-SEE GLYCINE MAX, SEEDS, MECH EXTD		-	-	-	-	-	-	-	-	-
81	GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
82	SOYBEAN MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
83	-SEE GLYCINE MAX, SEEDS, MECH EXTD		-	-	-	-	-	-	-	-	-
84	GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
85	SOYBEAN MEAL, MECHANICAL EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
86	-SEE GLYCINE MAX, SEEDS, MECH EXTD		-	-	-	-	-	-	-	-	-
87	GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
88	SOYBEAN MEAL, SOLVENT EXTRACTED (AAFCO)		-	-	-	-	-	-	-	-	-
89	-SEE GLYCINE MAX, SEEDS, SOLV EXTD		-	-	-	-	-	-	-	-	-
90	GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
91	SOYBEAN MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
92	-SEE GLYCINE MAX, SEEDS, SOLV EXTD		-	-	-	-	-	-	-	-	-
93	GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
94	SOYBEAN OIL MEAL, DEHULLED, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
95	-SEE GLYCINE MAX, SEEDS NO HULLS, SOLV		-	-	-	-	-	-	-	-	-
96	EXTD GRND, MX 3% FIBER, (5)		-	-	-	-	-	-	-	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	8.3*	-	0.10	-	-	-	0.20	-	-	-	-	-	-	-	-	-	-	-
10	-	60.3*	-	0.73	-	-	-	1.47	-	-	-	-	-	-	-	-	-	-	-
11	15.8	17.7	21.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	65.1	73.1	87.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	20.1*	20.2*	-	0.33	-	-	-	0.08	0.63	-	-	-	-	-	-	-	-	-	-
33	59.8*	59.9*	-	0.98	-	-	-	0.23	1.87	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	14.1*	15.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	53.1*	56.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	45.0*	44.5*	-	0.28	-	21.5	407.5	0.14	-	-	-	-	-	-	-	-	-	-	-
42	49.7*	49.1*	-	0.30	-	23.8	450.1	0.15	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	0.16	-	-	-	0.10	-	-	-	29.8	-	-	2.0	-	0.02	0.01	
44	-	-	-	0.18	-	-	-	0.12	-	-	-	33.7	-	-	2.2	-	0.02	0.01	
45	12.4*	12.7*	-	0.09	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
46	58.5*	59.6*	-	0.41	-	-	-	0.21	-	-	-	-	-	-	-	-	-	-	-
47	12.4*	12.4*	-	0.04	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-
48	54.9*	54.8*	-	0.18	-	-	-	0.21	-	-	-	-	-	-	-	-	-	-	-
49	14.5*	14.3*	-	0.09	-	-	-	0.05	0.31	-	-	-	-	-	-	-	-	-	-
50	54.5*	54.0*	-	0.34	-	-	-	0.17	1.18	-	-	-	-	-	-	-	-	-	-
51	67.7*	61.3	73.8*	0.11	-	-	-	0.42	-	-	-	30.0	-	-	-	0.12	0.29	0.13	0.08
52	77.7*	70.3	84.7*	0.12	-	-	-	0.48	-	-	-	34.4	-	-	-	0.13	0.34	0.14	0.10
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	69.5*	76.1*	75.3*	0.03	0.122	-	-	0.29	-	-	449.	41.1	11.7	-	1.1	0.15	0.29	0.12	0.10
55	78.6*	86.0*	85.1*	0.03	0.138	-	-	0.32	-	-	508.	46.5	13.2	-	1.3	0.17	0.32	0.14	0.11
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	9.6*	9.8*	-	0.15	-	-	-	0.03	0.52	-	-	-	-	-	-	-	-	-	-
58	56.8*	57.5*	-	0.86	-	-	-	0.17	3.05	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	55.9*	58.7*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
63	6.6*	7.8*	-	0.05	-	7.0	4.5	0.03	0.44	-	-	-	-	-	-	-	-	-	-
64	46.7*	55.2*	-	0.38	-	49.2	31.4	0.19	3.11	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66	37.5	80.4	82.3	0.03	0.176	6.4	16.0	0.29	0.34	-	436.	38.8	12.0	-	1.3	0.13	0.27	0.18	0.14
67	42.0	90.2	92.3	0.03	0.197	7.2	17.9	0.33	0.38	-	489.	43.5	13.5	-	1.4	0.15	0.30	0.20	0.16
68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	71.5	84.1	77.3	0.03	0.025	12.8	13.6	0.28	0.35	15.3	587.	36.4	10.8	-	1.2	0.18	0.18	0.28	0.23
70	80.4	94.6	86.9	0.03	0.028	14.4	15.3	0.32	0.39	17.3	661.	40.9	12.1	-	1.3	0.20	0.20	0.31	0.26
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	SOYBEAN OIL MEAL, EXPELLER EXTRACTED		-	-	-	-	-	-	-	-	-
02	-SEE GLYCINE MAX, SEEDS, MECH EXTD		-	-	-	-	-	-	-	-	-
03	GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
04	SOYBEAN OIL MEAL, HYDRAULIC EXTRACTED		-	-	-	-	-	-	-	-	-
05	-SEE GLYCINE MAX, SEEDS, MECH EXTD		-	-	-	-	-	-	-	-	-
06	GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
07	SOYBEAN OIL MEAL, SOLVENT EXTRACTED		-	-	-	-	-	-	-	-	-
08	-SEE GLYCINE MAX, SEEDS, SOLV EXTD		-	-	-	-	-	-	-	-	-
09	GRND, MX 7% FIBER, (5)		-	-	-	-	-	-	-	-	-
10	SOYBRAN FLAKES		-	-	-	-	-	-	-	-	-
11	-SEE GLYCINE MAX, HULLS, (1)		-	-	-	-	-	-	-	-	-
12	SPARTIUM JUNCEUM, WEAVERSBROOM		-	-	-	-	-	-	-	-	-
13	-AERIAL PART, DEHY GRND, (1)	1-10-897	94.	4.4	33.7	3.0	13.5	2.35*	2.33*	-	-
14			100.0	4.7	36.0	3.2	14.4	2.51*	2.49*	-	-
15	SPOROBOLUS INDICUS, SMUTGRASS, WEST INDIES		-	-	-	-	-	-	-	-	-
16	-HAY, S-C, (1)	1-09-452	91.	5.7	32.7	1.8	4.9	2.12*	2.05*	-	-
17			100.0	6.3	36.1	1.9	5.4	2.34*	2.27*	-	-
18	STIPA BRACHYPHYLLA, NEEDLEGRASS, BRACHYPHYLLA		-	-	-	-	-	-	-	-	-
19	-AERIAL PART, FRESH, MATURE, (2)	2-10-906	-	-	-	-	-	-	-	-	-
20			100.0	2.9	37.9	0.6	1.9	-	-	-	-
21	STIPA DEPAUPERATA, NEEDLEGRASS, DEPAUPERATA		-	-	-	-	-	-	-	-	-
22	-AERIAL PART, FRESH, MATURE, (2)	2-10-902	-	-	-	-	-	-	-	-	-
23			100.0	6.0	36.3	1.8	2.7	2.05*	2.45*	-	-
24	STIPA ICHU, NEEDLEGRASS, ICHU		-	-	-	-	-	-	-	-	-
25	-AERIAL PART, FRESH, (2)	2-10-901	-	-	-	-	-	-	-	-	-
26			100.0	4.8	35.4	1.3	5.1	2.23*	2.52*	-	-
27	-AERIAL PART, FRESH, MATURE, (2)	2-10-799	-	-	-	-	-	-	-	-	-
28			100.0	4.1	37.6	1.6	3.1	1.99*	2.46*	-	-
29	STIPA OBTUSA, NEEDLEGRASS, OBTUSA		-	-	-	-	-	-	-	-	-
30	-AERIAL PART, FRESH, (2)	2-10-904	-	-	-	-	-	-	-	-	-
31			100.0	5.6	39.3	1.6	5.5	2.06*	2.44*	-	-
32	STIZOLOBIUM ATERRIMUM, VELVETBEAN, BENGAL		-	-	-	-	-	-	-	-	-
33	-SEEDS W PODS, (4)	4-13-231	92.	3.6	19.3	3.2	12.0	2.61*	2.86*	2293.*	-
34			100.0	3.9	20.9	3.5	13.0	2.83*	3.10*	2487.*	-
35	STIZOLOBIUM DEERINGIANUM, VELVETBEAN, DEERING		-	-	-	-	-	-	-	-	-
36	STRIP CANE		-	-	-	-	-	-	-	-	-
37	-SEE SACCHARUM OFFICINARUM, LEAVES W		-	-	-	-	-	-	-	-	-
38	TOP OF AERIAL PART, FRESH, (2)		-	-	-	-	-	-	-	-	-
39	STYLOSANTHES GRACILIS, PENCILFLOWER, GRACILIS		-	-	-	-	-	-	-	-	-
40	-AERIAL PART, FRESH, CUT 1, (2)	2-10-788	22.	1.7	7.3	0.5	3.1	0.57*	0.59*	-	-
41			100.0	7.8	33.1	2.4	14.2	2.58*	2.67*	-	-
42	-AERIAL PART, FRESH, CUT 2, (2)	2-10-787	23.	2.1	7.8	0.5	2.9	0.56*	0.59*	-	-
43			100.0	9.2	34.4	2.4	12.8	2.46*	2.60*	-	-
44	STYLOSANTHES HUMILIS, PENCILFLOWER, HUMILIS		-	-	-	-	-	-	-	-	-
45	SUNFLOWER MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
46	-SEE HELIANTHUS SPP, SEEDS WO HULLS,		-	-	-	-	-	-	-	-	-
47	SOLV EXTD GRND, (5)		-	-	-	-	-	-	-	-	-
48	SUNFLOWER OIL MEAL, WITHOUT HULLS, SOLVENT		-	-	-	-	-	-	-	-	-
49	EXTRACTED		-	-	-	-	-	-	-	-	-
50	-SEE HELIANTHUS SPP, SEEDS WO HULLS,		-	-	-	-	-	-	-	-	-
51	SOLV EXTD GRND, (5)		-	-	-	-	-	-	-	-	-
52	TARAXACUM OFFICINALE, DANDELION, COMMON		-	-	-	-	-	-	-	-	-
53	-AERIAL PART, FRESH, (2)	2-13-449	17.	1.4	1.6	0.4	2.0	0.71*	0.59*	-	-
54			100.0	8.4	9.4	2.3	12.1	4.32*	3.54*	-	-
55	THEOBROMA CACAO, CACAO		-	-	-	-	-	-	-	-	-
56	-HULLS, (1)	1-01-051	88.	9.2	22.5	2.8	8.8	2.25*	2.15*	-	-
57			100.0	10.5	25.6	3.2	10.0	2.56*	2.45*	-	-
58	THEOBROMA SPP, CHOCOLATETREE		-	-	-	-	-	-	-	-	-
59	TORULA DRIED YEAST (AAFCO)		-	-	-	-	-	-	-	-	-
60	-SEE TORULOPSIS UTILIS TORULOPSIS,		-	-	-	-	-	-	-	-	-
61	DEHY, MN 40% PROTEIN, (7)		-	-	-	-	-	-	-	-	-
62	-DEHY, MN 40% PROTEIN, (7)	7-05-534	93.	8.8	2.8	2.0	45.1	-	3.09*	2803.*	2153.
63	TORULA DRIED YEAST (AAFCO)		100.0	9.5	3.0	2.1	48.7	-	3.33*	3028.*	2326.
64	TRACHYPOGON VESTITUS, CRINKLEAWN, VESTITUS		-	-	-	-	-	-	-	-	-
65	-AERIAL PART, FRESH, (2)	2-17-669	45.	3.4	15.4	0.8	2.5	1.01*	1.12*	-	-
66			100.0	7.6	34.6	1.8	5.6	2.26*	2.50*	-	-
67	TRICHLORIS PLURIFLORA, TRICHLORIS, FOURFLOWER		-	-	-	-	-	-	-	-	-
68	-AERIAL PART, DEHY, (1)	1-13-258	88.	8.5	27.4	0.9	3.0	1.34*	1.37*	-	-
69			100.0	12.5	40.6	1.4	4.4	1.98*	2.03*	-	-
70	TRIFOLIUM INCARNATUM, CLOVER, CRIMSON KENTUCKY		-	-	-	-	-	-	-	-	-
71	-AERIAL PART, FRESH FERTILIZED, EARLY BLOOM,	2-10-180	-	-	-	-	-	-	-	-	-
72	CUT 1, (2)		100.0	10.7	26.5	4.1	19.1	2.81*	2.87*	-	-
73	TRIFOLIUM INCARNATUM, CLOVER, CRIMSON		-	-	-	-	-	-	-	-	-
74	-AERIAL PART, FRESH, (2)	2-01-336	18.	1.7	4.9	0.6	3.0	0.49*	0.50*	-	-
75			100.0	9.5	27.7	3.3	17.0	2.81*	2.86*	-	-
76	TRIFOLIUM PRATENSE, CLOVER, RED		-	-	-	-	-	-	-	-	-
77	-HAY, S-C, (1)	1-01-415	92.	8.9	18.9	2.1	20.8	2.36*	2.33*	-	-
78			100.0	9.7	20.5	2.3	22.7	2.56*	2.54*	-	-
79	-AERIAL PART, FRESH, (2)	2-01-434	28.	2.0	3.3	0.6	3.6	1.12*	0.88*	-	-
80			100.0	7.1	11.7	2.0	12.8	4.00*	3.14*	-	-
81	TRIFOLIUM REPENS, CLOVER, WHITE		-	-	-	-	-	-	-	-	-
82	-HAY, S-C, (1)	1-01-464	93.	9.5	20.5	1.3	23.1	2.80*	2.65*	-	-
83			100.0	10.1	21.9	1.4	24.8	3.00*	2.84*	-	-
84	-AERIAL PART, FRESH, (2)	2-01-468	21.	3.1	3.4	0.7	4.5	0.57*	0.60*	-	-
85			100.0	15.1	16.5	3.2	21.7	2.76*	2.89*	-	-
86	-AERIAL PART, FRESH, 15	2-13-150	-	-	-	-	-	-	-	-	-
87	TO 28 DAYS' GROWTH, (2)		100.0	-	-	-	17.5	-	-	-	-
88	TRIFOLIUM SPP, CLOVER		-	-	-	-	-	-	-	-	-
89	-AERIAL PART, FRESH, (2)	2-01-299	19.	1.2	2.9	0.5	2.5	0.76*	0.61*	-	-
90			100.0	6.6	15.6	2.8	13.3	4.05*	3.25*	-	-
91	TRIPSACUM LAXUM, GAMAGRASS, GUATEMALA		-	-	-	-	-	-	-	-	-
92	-AERIAL PART, FRESH, (2)	2-02-091	33.	2.6	11.7	0.8	2.3	0.73*	0.82*	-	-
93			100.0	8.0	35.8	2.4	7.0	2.23*	2.51*	-	-
94	-AERIAL PART, FRESH,	2-10-041	17.	2.1	5.8	0.5	1.9	0.40*	0.44*	-	-
95	29 TO 42 DAYS' GROWTH, (2)		100.0	12.4	33.5	2.7	11.1	2.32*	2.53*	-	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	53.4*	52.8*	-	0.54	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	-
14	57.0*	56.4*	-	0.58	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	48.1*	46.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	53.1*	51.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	0.12	0.158	4.6	34.4	0.06	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	46.6*	55.5*	-	0.17	0.237	3.2	49.6	0.07	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	50.5*	57.1*	-	0.20	0.108	2.5	45.9	0.09	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	45.1*	55.7*	-	0.16	0.194	2.2	47.8	0.05	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	46.7*	55.3*	-	0.19	0.193	3.3	86.7	0.11	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	59.3*	64.8*	52.0*	0.41	-	-	-	0.18	-	-	-	-	-	-	-	-	-	-	-
34	64.3*	70.3*	56.4*	0.44	-	-	-	0.19	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	12.9*	13.4*	-	0.35	-	5.6	11.8	0.05	0.32	-	-	-	-	-	-	-	-	-	-
41	58.6*	60.6*	-	1.56	-	25.2	53.4	0.25	1.43	-	-	-	-	-	-	-	-	-	-
42	12.7*	13.4*	-	0.40	-	4.0	10.3	0.09	0.43	-	-	-	-	-	-	-	-	-	-
43	55.9*	59.0*	-	1.76	-	17.6	45.3	0.40	1.89	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	16.2*	13.3*	-	0.12	-	-	-	0.07	-	-	-	7.7	-	-	4.8	-	-	-	-
54	97.9*	80.2*	-	0.73	-	-	-	0.41	-	-	-	46.3	-	-	29.3	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	50.9*	48.7*	-	0.41	-	42.7	37.7	0.18	-	-	-	-	-	-	-	-	-	-	-
57	58.1*	55.6*	-	0.46	-	48.7	43.0	0.20	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	-	70.0*	63.6	0.58	-	13.4	12.8	1.67	1.87	98.9	2874.	499.2	72.8	-	47.6	0.60	3.79	0.80	0.50
63	-	75.6*	68.7	0.63	-	14.5	13.8	1.80	2.03	106.8	3105.	539.3	78.7	-	51.4	0.65	4.10	0.86	0.54
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	22.8*	25.3*	-	0.13	-	-	92.5	0.03	0.42	19.3	-	-	-	-	-	-	-	-	-
66	51.2*	56.7*	-	0.30	-	-	207.3	0.07	0.94	43.3	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
68	30.4*	31.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
69	45.0*	46.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
72	63.8*	65.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	11.2*	11.4*	-	0.24	-	-	43.1	0.05	0.54	-	-	-	-	-	-	-	-	-	-
75	63.0*	64.9*	-	1.38	-	-	245.8	0.29	3.10	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	53.4	52.9	-	1.43	0.072	12.1	63.7	0.37	1.95	25.8	-	38.8	10.3	-	16.3	-	-	-	-
78	58.1	57.6	-	1.56	0.078	13.1	69.3	0.40	2.13	28.1	-	42.2	11.2	-	17.7	-	-	-	-
79	25.4*	19.9*	-	0.18	0.018	7.0	36.5	0.04	0.65	14.7	-	16.6	-	-	2.4	-	-	-	-
80	90.7*	71.2*	-	0.64	0.064	25.1	130.2	0.16	2.33	52.4	-	59.1	-	-	8.7	-	-	-	-
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
82	63.4*	60.1*	-	1.32	0.067	11.8	76.7	0.43	2.10	19.2	-	-	-	-	-	-	-	-	-
83	68.0*	64.4*	-	1.42	0.072	12.7	82.2	0.46	2.25	20.6	-	-	-	-	-	-	-	-	-
84	12.9*	13.5*	-	0.21	-	5.8	21.5	0.07	-	5.3	-	-	-	-	-	-	-	-	-
85	62.7*	65.6*	-	1.00	-	28.3	104.6	0.36	-	25.8	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	1.88	0.337	23.2	28.9	0.36	-	30.7	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	17.3*	13.9*	-	0.32	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-
90	91.8*	73.7*	-	1.70	-	-	-	0.32	-	-	-	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	16.5*	18.6*	-	0.02	-	7.1	7.8	0.04	-	-	-	-	-	-	-	-	-	-	-
93	50.5*	56.9*	-	0.06	-	21.8	24.0	0.12	-	-	-	-	-	-	-	-	-	-	-
94	9.1*	10.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
95	52.6*	57.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	*AERIAL PART, FRESH, CUT 4, (2)	2-11-917	34.	2.4	12.2	1.0	2.0	0.76*	0.86*	-	-
02			100.0	7.1	35.8	2.8	5.8	2.23*	2.51*	-	-
03	TRITICUM AESTIVUM, WHEAT		-	-	-	-	-	-	-	-	-
04	*AERIAL PART, FRESH, MILK STAGE, CUT 1, (2)	2-13-103	-	-	-	-	-	-	-	-	-
05			100.0	9.6	29.8	2.2	9.7	2.57*	2.62*	-	-
06	*BRAN, (4)	4-11-741	89.	5.7	10.0	4.1	15.8	2.68*	2.88*	2818.*	-
07			100.0	6.4	11.3	4.6	17.8	3.02*	3.24*	3172.*	-
08	*GRAIN, GRND, (4)	4-13-413	89.	0.8	2.7	1.8	12.2	3.30*	3.41*	3377.*	-
09			100.0	0.9	3.1	2.0	13.7	3.73*	3.85*	3815.*	-
10	TRITICUM DURUM, WHEAT, DURUM		-	-	-	-	-	-	-	-	-
11	*HULLS W GERM, (1)	1-13-423	91.	7.2	23.9	2.0	19.2	2.55*	2.46*	-	-
12			100.0	8.0	26.4	2.2	21.2	2.82*	2.72*	-	-
13	TRITICUM SPP, WHEAT		-	-	-	-	-	-	-	-	-
14	*STRAW, (1)	1-05-175	91.	6.9	37.2	1.4	4.1	1.93*	1.62*	-	-
15			100.0	7.5	40.9	1.5	4.5	2.12*	1.79*	-	-
16	*BRAN, (4)	4-05-191	88.	5.6	9.2	3.6	15.6	2.64*	2.91*	2844.*	-
17			100.0	6.4	10.4	4.1	17.6	2.99*	3.29*	3220.*	-
18	*BRAN, DRY MILLED, (4)	4-05-190	89.	5.4	10.5	4.6	16.2	2.79*	2.89*	2517.*	1048.
19	BRAN (CFA)		100.0	6.1	11.8	5.2	18.1	3.12*	3.23*	2816.*	1172.
20	WHEAT BRAN (AAFCO)		-	-	-	-	-	-	-	-	-
21	*FLOUR BY-PRODUCT, COARSE SIFTED,	4-05-201	88.	4.3	6.8	4.6	16.6	3.09*	3.29*	2975.*	2420.
22	MX 7% FIBER, (4)		100.0	4.9	7.7	5.2	18.7	3.49*	3.72*	3364.*	2737.
23	SHORTS, MX 8% FIBER (CFA)		-	-	-	-	-	-	-	-	-
24	WHEAT SHORTS, MX 7% FIBER (AAFCO)		-	-	-	-	-	-	-	-	-
25	*FLOUR BY-PRODUCT, FINE SIFTED,	4-05-203	88.	3.3	3.5	3.5	15.8	3.18*	3.51*	3237.*	1800.
26	MX 4% FIBER, (4)		100.0	3.8	4.0	4.0	17.9	3.60*	3.98*	3673.*	2042.
27	MIDDLINGS, MX 4.5% FIBER (CFA)		-	-	-	-	-	-	-	-	-
28	WHEAT RED DOG, MX 4% FIBER (AAFCO)		-	-	-	-	-	-	-	-	-
29	*GRAIN, (4)	4-05-211	89.	2.8	3.8	2.6	12.5	3.47	3.47	3629.	3266.
30			100.0	3.1	4.3	2.9	13.9	3.88	3.88	4056.	3650.
31	*GERM, GRND, MN 25% PROTEIN MN 7% FAT, (5)	5-05-218	88.	4.5	4.8	8.7	24.7	3.14*	3.59*	3534.*	2892.
32	WHEAT GERM MEAL (AAFCO)		100.0	5.1	5.4	9.9	28.0	3.56*	4.08*	4008.*	3281.
33	VICIA FABA, EQUINA, HORSEBEAN		-	-	-	-	-	-	-	-	-
34	*EQUINA, SEEDS, (5)	5-02-407	91.	3.2	6.9	1.2	23.1	3.81*	3.40*	-	-
35			100.0	3.5	7.6	1.3	25.5	4.20*	3.76*	-	-
36	VICIA VILLOSA, VETCH, HAIRY		-	-	-	-	-	-	-	-	-
37	*AERIAL PART, FRESH, EARLY BLOOM, CUT 1, (2)	2-09-912	-	-	-	-	-	-	-	-	-
38			100.0	9.7	28.2	2.9	22.1	2.75*	2.82*	-	-
39	VIGNA SINENSIS, COWPEA, COMMON		-	-	-	-	-	-	-	-	-
40	*AERIAL PART, DEHY GRND,	1-11-984	87.	9.8	26.7	4.2	15.6	1.96*	2.06	-	-
41	LATE VEGETATIVE, (1)		100.0	11.2	30.5	4.7	17.8	2.24*	2.36	-	-
42	VIGNA SPP, COWPEA		-	-	-	-	-	-	-	-	-
43	*SEEDS, (5)	5-01-661	89.	3.5	5.0	1.5	23.8	3.87*	3.34*	3340.*	-
44			100.0	4.0	5.6	1.7	26.8	4.35*	3.75*	3753.*	-
45	VITIS VINIFERA, GRAPE, EUROPEAN		-	-	-	-	-	-	-	-	-
46	WHEAT GERM MEAL (AAFCO)		-	-	-	-	-	-	-	-	-
47	*SEE TRITICUM SPP, GERM, GRND, MN 25%		-	-	-	-	-	-	-	-	-
48	PROTEIN MN 7% FAT, (5)		-	-	-	-	-	-	-	-	-
49	WHEAT RED DOG, MX 4% FIBER (AAFCO)		-	-	-	-	-	-	-	-	-
50	*SEE TRITICUM SPP, FLOUR BY-PRODUCT,		-	-	-	-	-	-	-	-	-
51	FINE SIFTED, MX 4% FIBER, (4)		-	-	-	-	-	-	-	-	-
52	WHEAT SHORTS, MX 7% FIBER (AAFCO)		-	-	-	-	-	-	-	-	-
53	*SEE TRITICUM SPP, FLOUR BY-PRODUCT,		-	-	-	-	-	-	-	-	-
54	COARSE SIFTED, MX 7% FIBER, (4)		-	-	-	-	-	-	-	-	-
55	WHEY, DRIED		-	-	-	-	-	-	-	-	-
56	*SEE BOS SPP, WHEY, DEHY, MN 65%		-	-	-	-	-	-	-	-	-
57	LACTOSE, (4)		-	-	-	-	-	-	-	-	-
58	WIREGRASS		-	-	-	-	-	-	-	-	-
59	*SEE ARISTIDA SPP, AERIAL PART, FRESH,		-	-	-	-	-	-	-	-	-
60	(2)		-	-	-	-	-	-	-	-	-
61	ZEA MAYS, CORN		-	-	-	-	-	-	-	-	-
62	*AERIAL PART, DEHY, (1)	1-02-768	95.	6.4	32.1	2.1	6.9	2.28*	2.21*	-	-
63	DEHYDRATED CORN PLANT (AAFCO)		100.0	6.7	33.9	2.2	7.3	2.40*	2.33*	-	-
64	*AERIAL PART, S-C, (1)	1-02-775	83.	6.4	23.3	1.4	7.9	2.01*	2.09	-	-
65	CORN FODDER, SUN-CURED		100.0	7.7	28.2	1.7	9.5	2.43*	2.52	-	-
66	*AERIAL PART NO EARS NO HUSKS,	1-13-325	88.	9.7	32.0	1.7	4.8	1.89*	1.87*	-	-
67	CHOPPED DEHY GRND, (1)		100.0	11.0	36.3	1.9	5.5	2.14*	2.13*	-	-
68	*COBS, GRND, (1)	1-02-782	88.	4.2	31.5	2.7	2.9	2.19*	1.95*	-	-
69	GROUND CORN COB (AAFCO)		100.0	4.8	36.0	3.0	3.3	2.50*	2.23*	-	-
70	*AERIAL PART, FRESH, (2)	2-02-806	28.	2.4	7.8	0.8	2.0	0.79*	0.76*	-	-
71	CORN FODDER, FRESH		100.0	8.7	27.8	2.8	7.3	2.81*	2.68*	-	-
72	ZEA MAYS, CORN		-	-	-	-	-	-	-	-	-
73	*AERIAL PART, FRESH, MIDBLOOM, (2)	2-13-763	-	-	-	-	-	-	-	-	-
74			100.0	10.7	[illegible]	0.9	9.8	2.79*	2.75*	-	-
75	*AERIAL PART, FRESH, DOUGH STAGE, (2)	2-02-803	-	-	-	-	-	-	-	-	-
76			100.0	8.1	29.2	1.6	8.8	2.61*	2.66*	-	-
77	*AERIAL PART, FRESH CHOPPED, (2)	2-10-357	22.	1.8	6.6	0.4	1.6	0.57*	0.59*	-	-
78			100.0	7.9	29.6	2.0	7.0	2.57*	2.64*	-	-
79	*STALKS, FRESH, (2)	2-02-814	18.	0.9	6.2	0.3	0.6	0.41*	0.46*	-	-
80			100.0	5.1	33.9	1.7	3.3	2.23*	2.54*	-	-
81	*AERIAL PART, ENSILED, (3)	3-02-822	27.	2.2	7.6	0.9	2.3	0.80*	0.80*	-	-
82	CORN FODDER SILAGE		100.0	8.1	27.8	3.3	8.5	2.90*	2.90*	-	-
83	*AERIAL PART, ENSILED, MILK STAGE, (3)	3-02-818	23.	1.6	7.2	0.6	1.5	0.64	0.63*	-	-
84	CORN FODDER SILAGE, MILK STAGE		100.0	7.0	30.9	2.5	6.2	2.75	2.68*	-	-
85	*AERIAL PART, ENSILED, DOUGH STAGE, (3)	3-02-819	26.	1.3	7.4	0.8	2.6	0.69	0.74*	-	-
86	CORN FODDER SILAGE, DOUGH STAGE		100.0	5.2	28.9	3.2	10.0	2.68	2.91*	-	-
87	*AERIAL PART, ENSILED TRENCH SILO, (3)	3-02-824	-	-	-	-	-	-	-	-	-
88			100.0	6.4	30.5	6.3	7.3	2.82*	2.75*	-	-
89	*EARS, GRND, (4)	4-02-849	86.	1.9	7.9	3.4	7.3	2.83*	2.98*	3040.*	2810.
90	CORN AND COB MEAL (AAFCO)		100.0	2.2	9.2	3.9	8.5	3.28*	3.46*	3526.*	3259.
91	EAR CORN CHOP (AAFCO)		-	-	-	-	-	-	-	-	-
92	GROUND EAR CORN (AAFCO)		-	-	-	-	-	-	-	-	-
93	*GRAIN, (4)	4-02-879	89.	1.6	2.2	4.6	9.9	3.24*	3.62*	3344.*	-
94			100.0	1.8	2.5	5.2	11.1	3.63*	4.07*	3752.*	-

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	17.3*	19.5*	-	0.06	-	-	-	0.35	-	-	-	-	-	-	-	-	-	-	-
02	50.5*	57.0*	-	0.17	-	-	-	1.01	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05	58.2*	59.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	60.9*	65.3*	63.9*	0.57	-	60.9	116.2	1.08	1.88	-	-	174.4	-	-	-	-	-	-	-
07	68.6*	73.6*	71.9*	0.64	-	68.6	130.8	1.22	2.12	-	-	196.4	-	-	-	-	-	-	-
08	74.8*	77.2*	76.6*	0.26	-	123.0	54.9	0.46	0.44	-	-	-	-	-	-	-	0.44	0.14	-
09	84.5*	87.3*	86.5*	0.30	-	139.0	62.0	0.52	0.50	-	-	-	-	-	-	-	0.49	0.16	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	57.8*	55.8*	-	0.31	-	375.5	159.3	-	-	-	-	-	-	-	-	-	-	-	-
12	63.8*	61.7*	-	0.34	-	414.9	176.0	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	43.7	36.8	-	0.20	-	2.8	50.0	0.06	1.16	-	-	-	-	-	1.0	-	-	-	-
15	48.1	40.5	-	0.22	-	3.1	55.0	0.07	1.27	-	-	-	-	-	1.1	-	-	-	-
16	60.0*	66.0*	64.5*	0.41	-	-	-	0.78	2.11	-	-	-	-	-	-	0.29	0.63	0.23	0.28
17	67.9*	74.7*	73.0*	0.46	-	-	-	0.88	2.39	-	-	-	-	-	-	0.32	0.72	0.26	0.31
18	63.2	65.5*	57.1	0.24	0.097	14.0	113.0	1.12	1.19	-	796.	186.3	31.0	-	4.6	0.25	0.59	0.17	0.31
19	70.7	73.3*	63.9	0.27	0.109	15.7	126.5	1.25	1.33	-	890.	208.4	34.7	-	5.1	0.28	0.66	0.19	0.34
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	70.0*	74.7	67.5	0.16	0.106	11.8	107.8	0.85	0.93	108.7	1808.	98.8	22.4	-	4.0	0.34	0.80	0.26	0.22
22	79.2*	84.5	76.3	0.18	0.120	13.3	122.0	0.96	1.05	122.9	2045.	111.7	25.3	-	4.6	0.38	0.90	0.29	0.24
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	72.0*	79.7	73.4	0.09	0.113	6.4	60.0	0.53	0.55	64.2	1439.	47.6	13.3	-	2.2	0.32	0.56	0.21	0.21
26	81.7*	90.4	83.3	0.10	0.128	7.2	68.1	0.60	0.63	72.9	1632.	54.0	15.1	-	2.5	0.36	0.63	0.24	0.23
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	78.7	77.6	82.3	0.11	-	-	-	0.43	0.43	-	1009.	6.5	11.5	-	0.1	0.16	0.36	0.32	0.19
30	88.0	86.7	92.0	0.12	-	-	-	0.48	0.48	-	1128.	7.3	12.9	-	0.1	0.18	0.41	0.35	0.21
31	71.3*	81.5*	80.2	0.06	0.119	9.1	129.4	0.98	0.87	120.1	3376.	64.9	20.3	-	5.6	0.49	1.55	0.40	0.30
32	80.9*	92.4*	90.9	0.07	0.135	10.3	146.7	1.11	0.99	136.2	3829.	73.6	23.0	-	6.3	0.55	1.76	0.45	0.34
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	86.4*	77.2*	-	0.12	-	-	-	0.40	-	-	-	23.8	-	-	3.5	-	-	-	-
35	95.4*	85.2*	-	0.13	-	-	-	0.44	-	-	-	26.3	-	-	3.9	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	62.4*	64.0*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	44.4*		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	50.8*	0.1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	87.8*	75.7	75.8	0.09	-	4.4	40.1	0.44	1.16	-	-	24.4	15.4	-	2.3	-	2.10	0.20	0.30
44	98.6*	85.1	85.1	0.10	-	5.0	45.1	0.50	1.30	-	-	27.4	17.3	-	2.5	-	2.36	0.22	0.34
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
62	51.7*	50.0*	-	1.86	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
63	54.5*	52.8*	-	1.96	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
64	45.6*	36.0	-	0.31	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
65	55.1*	43.5	-	0.38	-	-	-	0.17	-	-	-	-	-	-	-	-	-	-	-
66	42.8*	42.5*	-	0.41	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-
67	48.5*	48.2*	-	0.47	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	-
68	49.6*	44.2	-	0.26	-	-	-	0.17	0.79	-	-	-	-	-	-	-	-	-	-
69	56.6*	50.5	-	0.30	-	-	-	0.19	0.91	-	-	-	-	-	-	-	-	-	-
70	18.0*	17.1*	-	0.11	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-
71	63.8*	60.8*	-	0.39	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	63.2*	62.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	59.1*	60.2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77	13.0*	13.4*	-	0.04	-	6.2	11.1	0.03	-	-	-	-	-	-	-	-	-	-	-
78	58.4*	60.0*	-	0.19	-	27.9	49.8	0.13	-	-	-	-	-	-	-	-	-	-	-
79	9.2*	10.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	50.6*	57.6*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
81	18.1	18.1	-	0.16	-	0.5	13.2	0.07	0.32	4.3	-	5.4	-	-	-	-	-	-	-
82	65.8	65.8	-	0.57	-	1.7	48.2	0.24	1.18	15.8	-	19.5	-	-	-	-	-	-	-
83	16.1	14.2*	-	0.07	-	-	-	0.06	0.37	-	-	-	-	-	-	-	-	-	-
84	69.0	60.9*	-	0.28	-	-	-	0.24	1.57	-	-	-	-	-	-	-	-	-	-
85	17.1	16.8*	-	0.27	-	3.4	8.8	0.44	1.03	5.4	-	-	-	-	-	-	-	-	-
86	67.0	65.9*	-	1.06	-	13.3	34.3	1.71	4.02	21.0	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	57.1*	62.5*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	64.2*	67.6	69.0	0.09	0.133	3.0	4.5	0.23	0.46	8.9	398.	17.6	4.4	-	0.9	0.14	0.18	0.14	0.07
90	74.5*	78.4	80.0	0.10	0.154	3.5	5.2	0.26	0.53	10.3	462.	20.4	5.1	-	1.1	0.16	0.21	0.17	0.08
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
93	73.4*	82.2	75.8*	0.07	-	19.8	58.4	0.33	0.71	30.7	-	27.0	28.2	-	-	0.11	0.27	0.14	0.16
94	82.4*	92.2	85.1*	0.08	-	22.3	65.5	0.37	0.80	34.5	-	30.3	31.6	-	-	0.13	0.30	0.15	0.18

Table of Feed Composition

Line No.	GENUS SPECIES COMMON NAME International Feed Name American Feed Control Name (AAFCO) Canada Feed Act Name (CFA) Other Name	International Feed Reference No.	Dry Matter	On an as fed and dry basis (moisture free): Ash	Crude fiber	Fat	Protein	DE Cattle	DE Sheep	DE Swine	ME_n Chicken
			%	%	%	%	%	Mcal/kg	Mcal/kg	kcal/kg	kcal/kg
01	*GRAIN, FERTILIZED, (4)	4*10*359	86.	1.3	2.1	1.7	8.7	3.10*	3.30*	3293.*	*
02			100.0	1.6	2.5	2.0	10.1	3.60*	3.84*	3831.*	*
03	*GRAIN, GRND. (4)	4*10*422	89.	2.2	2.5	4.0	8.9	3.08*	3.36*	3310.*	*
04			100.0	2.4	2.8	4.5	10.0	3.47*	3.79*	3727.*	*
05	*GRITS BY*PRODUCT, MN 5% FAT, (4)	4*02*887	89.	5.7	5.0	9.8	16.4	3.71*	3.49*	3492.*	1952.
06	HOMINY FEED (CFA)		100.0	6.4	5.6	11.0	18.4	4.16*	3.91*	3918.*	2190.
07	HOMINY FEED (AAFCO)		*	*	*	*	*	*	*	*	*
08	*BRAN W GERM, GRND, (5)	5*13*529	89.	4.3	9.4	8.6	14.5	*	3.48*	*	*
09			100.0	4.8	10.5	9.6	16.3	*	3.90*	*	*
10	*DISTILLERS GRAINS W SOLUBLES, DEHY,	5*02*843	93.	4.7	9.1	9.7	27.2	3.15*	3.02*	*	2479.
11	MN 75% ORIGINAL SOLIDS, (5)		100.0	5.1	9.8	10.5	29.4	3.40*	3.26*	*	2677.
12	CORN DISTILLERS DRIED GRAINS WITH SOLUBLES		*	*	*	*	*	*	*	*	*
13	(AAFCO)		*	*	*	*	*	*	*	*	*
14	*DISTILLERS SOLUBLES, DEHY, (5)	5*02*844	92.	7.7	5.0	8.0	27.2	3.27*	3.46*	3332.*	2928.
15	CORN DISTILLERS DRIED SOLUBLES (AAFCO)		100.0	8.3	5.4	8.7	29.5	3.55*	3.75*	3614.*	3176.
16	*GLUTEN W BRAN, WET MILLED DEHY, (5)	5*02*903	90.	5.7	9.3	2.7	24.6	3.28*	3.31*	3395.*	1688.
17	CORN GLUTEN FEED (CFA)		100.0	6.3	10.3	2.9	27.3	3.63*	3.66*	3758.*	1868.
18	CORN GLUTEN FEED (AAFCO)		*	*	*	*	*	*	*	*	*
19	*GLUTEN, WET MILLED DEHY, (5)	5*02*900	88.	6.5	5.3	5.9	40.8	3.13*	3.40*	*	2427.
20	CORN GLUTEN MEAL (CFA)		100.0	7.4	6.1	6.7	46.6	3.58*	3.88*	*	2772.
21	CORN GLUTEN MEAL (AAFCO)		*	*	*	*	*	*	*	*	*
22	ZEA MAYS, CORN, OPAQUE 2		*	*	*	*	*	*	*	*	*
23	*STALKS, FRESH, DOUGH STAGE, (2)	2*13*506	*	*	*	*	*	*	*	*	*
24			100.0	7.1	35.8	0.5	5.7	*	2.40*	*	*
25	*GRAIN, (4)	4*11*445	86.	1.7	2.5	4.4	9.7	3.11*	3.28*	3235.*	*
26			100.0	2.0	2.9	5.1	11.2	3.61*	3.80*	3748.*	*
27	ZEA MAYS, CORN, WHITE		*	*	*	*	*	*	*	*	*
28	*GRAIN, (4)	4*09*907	88.	1.5	2.9	4.1	9.4	3.17*	3.38*	3314.*	*
29			100.0	1.7	3.2	4.7	10.7	3.59*	3.80*	3752.*	*
30	ZEA MAYS, CORN, YELLOW		*	*	*	*	*	*	*	*	*
31	*GRAIN, (4)	4*07*911	88.	1.5	2.3	4.2	9.0	3.16*	3.37*	3307.*	*
32			100.0	1.7	2.6	4.8	10.2	3.58*	3.82*	3748.*	*
33	ZEA MAYS, INDENTATA, CORN, DENT WHITE		*	*	*	*	*	*	*	*	*
34	*INDENTATA DENT WHITE, GRAIN, (4)	4*02*928	88.	*	*	*	*	*	*	*	*
35			100.0	*	*	*	*	*	*	*	*
36	ZEA MAYS, INDENTATA, CORN, DENT YELLOW		*	*	*	*	*	*	*	*	*
37	*INDENTATA DENT YELLOW, GRAIN, (4)	4*02*935	87.	1.5	2.9	3.5	8.8	3.08*	3.30*	3489.*	3329.
38			100.0	1.7	3.3	4.0	10.1	3.54*	3.80*	4008.*	3825.
39			*	*	*	*	*	*	*	*	*

Line No.	On an as fed and dry basis (moisture free)																		
	TDN Cattle	TDN Sheep	TDN Swine	Calcium	Cobalt	Copper	Manganese	Phosphorus	Potassium	Zinc	Choline	Niacin	Pantothenic Acid	Pro-Vitamin A	Riboflavin	Cystine	Lysine	Methionine	Tryptophan
	%	%	%	%	mg/kg	mg/kg	mg/kg	%	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%
01	70.3*	75.0*	74.7*	0.02	-	2.8	1.7	0.26	0.22	17.2	-	-	-	-	-	0.17	0.23	0.13	0.40
02	81.8*	87.2*	86.9*	0.02	-	3.3	2.0	0.31	0.25	20.0	-	-	-	-	-	0.20	0.27	0.15	0.47
03	69.9*	76.2*	75.1*	0.12	-	17.3	7.7	0.36	0.25	24.0	-	18.1	-	-	-	0.25	0.33	0.17	0.11
04	78.7*	85.9*	84.5*	0.13	-	19.5	8.6	0.41	0.28	27.0	-	20.4	-	-	-	0.28	0.38	0.20	0.12
05	84.2	79.1	79.2*	0.44	0.059	13.2	14.4	1.16	0.45	-	964.	59.6	7.8	-	2.2	0.19	0.45	0.18	0.12
06	94.5	88.7	88.9*	0.49	0.066	14.8	16.1	1.31	0.51	-	1081.	66.9	8.8	-	2.4	0.21	0.51	0.20	0.13
07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08	-	79.0*	-	0.84	-	35.7	13.4	0.88	0.97	-	-	-	-	-	-	-	-	-	-
09	-	88.6*	-	0.94	-	40.0	15.0	0.99	1.09	-	-	-	-	-	-	-	-	-	-
10	71.4*	68.5	-	0.17	0.111	56.5	23.9	0.73	0.65	-	2637.	-	-	-	-	0.34	0.75	0.50	0.18
11	77.1*	73.9	-	0.18	0.120	61.1	25.8	0.79	0.70	-	2848.	-	-	-	-	0.37	0.81	0.54	0.20
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	74.2*	78.5*	75.6	0.31	0.194	82.7	73.7	1.24	1.75	84.3	4798.	-	-	-	-	0.47	0.94	0.55	0.21
15	80.5*	85.1*	82.0	0.34	0.211	89.7	79.9	1.35	1.90	91.4	5203.	-	-	-	-	0.47	1.02	0.60	0.23
16	74.5	75.1*	77.0	0.33	0.084	45.8	23.1	0.71	0.58	-	1495.	70.0	12.9	-	4.2	0.54	1.02	0.55	0.26
17	82.4	83.1*	85.2	0.37	0.093	50.7	25.6	0.79	0.64	-	1654.	77.5	14.3	-	4.5	0.60	1.13	0.61	0.28
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	71.1*	77.0*	-	0.29	0.068	27.2	8.6	0.67	0.29	-	890.	42.3	9.5	-	1.6	0.63	0.83	0.92	0.20
20	81.2*	88.0*	-	0.34	0.078	31.1	9.8	0.76	0.34	-	1016.	48.3	10.9	-	1.8	0.71	0.95	1.05	0.23
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	54.4*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	70.6*	74.4*	73.4*	0.12	-	-	-	0.27	-	-	-	-	-	-	-	0.18	0.36	0.12	0.06
26	81.8*	86.2*	85.0*	0.14	-	-	-	0.31	-	-	-	-	-	-	-	0.21	0.42	0.13	0.07
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	71.9*	76.1*	75.2*	0.01	-	-	-	0.27	-	-	-	18.6	-	-	-	-	0.29	-	-
29	81.4*	86.1*	85.1*	0.02	-	-	-	0.31	-	-	-	21.1	-	-	-	-	0.33	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	71.6*	76.4*	75.0*	0.05	-	53.8	4.4	0.30	0.44	-	-	19.5	-	-	-	0.08	0.20	0.14	0.06
32	81.1*	86.6*	85.0*	0.06	-	61.0	5.0	0.34	0.50	-	-	22.1	-	-	-	0.09	0.22	0.16	0.07
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	0.04	0.027	2.6	3.9	0.26	-	-	-	6.8	1.8	-	0.6	0.09	0.26	0.09	0.09
35	-	-	-	0.04	0.031	3.0	4.4	0.30	-	-	-	7.8	2.0	-	0.7	0.10	0.30	0.10	0.10
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	69.9*	75.0*	79.1	0.01	-	3.4	4.1	0.25	0.33	10.3	435.	21.3	5.6	-	1.1	0.11	0.20	0.17	0.09
38	80.4*	86.1*	90.9	0.01	-	3.9	4.7	0.28	0.38	11.8	500.	24.4	6.5	-	1.3	0.12	0.23	0.20	0.10
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

GLOSSARY 1 Terms used in the International nomenclature[a]

The "part" and "process" terms defined below are used in the International feed names (Harris *et al.*, 1968). The terms defined describe: (1) the part(s) of parent feed material eaten, (2) the process(es) and treatment(s) to which the product has been subjected before feeding to the animal, (3) the physical form of the part as a single ingredient or of a mixture of parts prepared for feeding, and (4) other relevant miscellaneous terms.

acid hydrolyzed (process) See **hydrolyzed.**

acidified (process) Addition of an acid to provide a pH lower than pH 7. Sometimes a precipitate forms which may be removed by mechanical means (i.e., curd from whey).

additive An ingredient or combination of ingredients added, usually in minute quantities, to the basic feed mix or parts thereof to fulfill a specific need. See **feed additive concentrate, feed additive supplement, feed additive premix, food additive.**

aerial part (part) The above ground part of a plant.

air ashed (process) Reduced by combustion in air to a mineral residue.

AIV preservative (part) A preservative for silage consisting of a mixture of hydrochloric and sulfuric acids.

alcohol extracted (process) Treated with alcohol to remove all alcohol-soluble substances.

ammoniated (process) Combined or impregnated with ammonia or an ammonium compound.

antibiotic A drug synthesized by a microorganism and having the power (in proper concentration) to inhibit the growth of other microorganisms.

apparent digestible energy (DE) Food-intake gross energy minus fecal energy. Syn: **apparent absorbed energy, energy of apparently digested food.** See **GE digestion coefficient.**

DE = (GE of food per unit dry wt x dry wt of food) − (GE of feces per unit dry wt x dry wt of feces)

artificially dried (process) Moisture removed by other than natural means. See **fan air dried with heat** (International term).

as fed See **dry matter content of feed samples.**

ash (part) Mineral residue remaining after the burning of combustible substances.

aspirated (process) Removal of light materials from heavier materials by use of air. Refers to chaff, dust, or other light materials.

autoclaved (process) Cooked under pressure in an autoclave.

bagasse (part) Pulp from sugar cane. International term: **pulp.**

balanced Containing nutrients in amounts and proportions that fulfill physiological needs of animals as specified by recognized authorities in animal nutrition. The species for which the feed or ration is intended, and its functions, such as maintenance or maintenance plus production (growth, fetus, fat, milk, eggs, wool, feathers, or work) shall be specified.

barn-cured (process) Dried with forced ventilation in an enclosure. Refers to forage. See **fan air dried without heat** (International term).

beans (part) Seeds of leguminous plants especially of the genera *Phaseolus, Dolichols,* and *Vigna.*

biscuits (physical form) Shaped and baked dough.

bisulfite preservative (part) An acid sulfite used to prevent decomposition of stored products.

bitterness extracted (process) Treated to remove bitter taste.

blended (process) Mingled or combined. Refers to ingredients of a mixed feed; does not imply uniformity of dispersion.

block (physical form) Agglomerated feed compressed into a solid mass (usually weighing 30 to 50 pounds) cohesive enough to hold its form. See **brick, pellets.**

blocked (process) Compressed into a large, solid mass.

[a]Taken from Harris *et al.*, 1968.

blood albumin (part) One of the blood proteins.

blowings (part) See **mill dust** (International term).

bolls (part) The pods or capsules of certain plants (e.g., flax and cotton).

bolls process residue (part) The residue from immature and unopened cotton bolls after removal of fiber and seed.

bolted (process) Separated from parent material by means of a bolting cloth. Refers to two ingredients (e.g., bran separated from flour).

bone ash (part) The white, porous residue that remains after burning bones in air.

bone charcoal (part) The product obtained by charring bones in a closed retort.

bone glue residue (part) Part of bone remaining (chiefly calcium phosphate) after removal of the part used in manufacturing bone glue.

bone phosphate (part) The residue of bones that have been treated first in caustic solution, then in hydrochloric acid solution, and thereafter precipitated with lime and dried.

bone protein colloids (part) The gelatinous material extracted from bones by moist heat treatment.

bran (part) Pericarp of grain.

brand name Defined by the Association of American Feed Control Officials as "any word. name, symbol or device, or any combination thereof, identifying the commercial feed of a distributor and distinguishing it from that of others."

brewers' grains (part) The coarse, insoluble residue from brewed malt.

brick (physical form) Agglomerated feed compressed into a solid mass (weighing less than 2 pounds) cohesive enough to hold its form. See **block, pellets.**

browse (part) Small stems, leaves, flowers, and fruits of shrubs, trees, or woody vines.

bud (part) Small lateral or terminal protuberance on a plant stem. It consists of rudimentary foliage or floral levels or both overarching a growing point on an undeveloped shoot.

bulb (part) Mass of overlapping membranous or fleshy leaves on a short stem-base enclosing one or more buds that may develop into a new plant.

cake (physical form) The mass that results from pressing seeds, meat, or fish to remove oils, fats, or other liquids.

calcined (process) Heated to high temperature in the presence of air.

calorie (cal) The unit for measuring chemical energy. It is defined as the amount of heat required to raise the temperature of 1 gram of water from 14.5° to 15.5° C at standard pressure. One thousand calories is designated as 1 kilocalorie (kcal) (kilocalorie is preferred to Calorie spelled with a large "C" because of the confusion with a small calorie spelled with a small "c"), 1 million calories as 1 megacalorie (Mcal). One calorie is equivalent to 4.184 joules (J), which is the unit of electrical energy defined as 10^7 ergs or, practically, the energy expended in 1 second by an electric current of 1 ampere in a resistance of 1 ohm. The standard calorie used for expressing the chemical energy in feeds and metabolic processes is based on the heat of combustion of benzoic acid, which has been precisely determined to be 771.36 ± 0.03 kcal/mole.

canned (process) Processed, packaged, sealed, and sterilized in cans or similar containers.

cannery residue (part) Edible residue that remains after a product is prepared for canning.

capsule chaff (part) The light, fibrous material obtained by aspiration of flaxseed or flaxseed capsules.

carcass (part) The body of an animal exclusive of the intestinal tract and lung tissue. (If head and skin are included, the term **carcass with head and skin** is used; if head and skin are not included, the term is **carcass without head and skin.**)

carcass meat trimmings (part) Soft tissues obtained from slaughtered animals. The tissues consist chiefly of striate, skeletal, and cardiac muscles, but they may include the accompanying fat, skin, sinew, nerve, and blood vessels.

carcass residue, mammals (part) Residue from carcasses exclusive of hair, hoofs, horns, and contents of the digestive tract. (If bones are included, the term **carcass residue with bones** is used.)

carrier An edible material (e.g., soybean meal) to which ingredients (e.g., vitamin A or riboflavin) are added. The added ingredients are absorbed, impregnated, or coated into or onto the edible material.

casein (part) The protein precipitate that results from treating skim milk with acid or rennet.

centrifuged (process) Separated by a force moving away from a center.

cereal by-product (part) Secondary product resulting from the manufacture of a table cereal.

chaff (part) Glumes, hulls, joints, and small fragments of straw that are separated from seed in threshing or processing.

chaff and dust (part) Defined by the Association of American Feed Control Officials as material

> ..... separated from grains or seeds in the usual commercial cleaning processes. It may include hulls, joints, straw, mill or elevator dust, sweepings, sand, dirt, grains, seeds. It must be labeled "chaff and/or dust." If it contains more than 15% ash the words "sand" and "dirt" must appear on the label.

See **screenings.**

charcoal (part) Dark, porous forms of carbon made by incomplete combustion of plant or animal material.

chipped (process) Cut or broken into fragments or cut into small, thin slices.

chopped (process) Reduced in particle size by cutting.

cleaned (process) Subjected to any process (e.g., scalping, screening, aspiration, or magnetic separation) by which unwanted material is removed.

cleanings (part) Chaff, weed seeds, dust, and other foreign matter removed from cereal grains.

clipped (process) Refers to removal of ends of whole grain.

close planted (process) Planted with less than normal distance between rows.

coagulated (process) Curdled, clotted, or congealed, usually by the action of a coagulant.

coarse bolted (process) Separated from parent material by means of a coarsely woven bolting cloth.

coarsely sifted (process) Separated from parent material by means of coarsely woven wire sieves.

cob fractions (part) A mixture containing rings, or disks, cut from corn (maize) cobs and all or some of the following: glumes, lemmas, paleae, and sterile florets.

cobs (part) The fibrous inner portions of the ears of corn (maize) from which the kernels have been removed.

cobs furfural residue (part) The residue from extraction of furfurals from corn (maize) cobs.

cobs with grain (part) See **ears** (International term).

cobs with husks (part) Corn (maize) cobs with the enveloping husks but without the grain.

commercial feed Defined in the Uniform Feed Bill (an Act) of the Association of American Feed Control Officials as follows:

> The term 'commercial feed' means all materials which are distributed for use as feed or for mixing in feed, for animals other than man except;
>
> (1) Option A — Unmixed seed, whole or processed, made directly from the entire seed which are not adulterated within the meaning of Section 7 of this Act.
>
> Option B — Unmixed or unprocessed whole seeds which are not adulterated within the meaning of Section 7 of this Act.
>
> (2) Hay, straw, stover, silage, cobs, husks and hulls
>
> (i) when unground, and
>
> (ii) when unmixed with other materials.
>
> (3) Individual chemical compounds when not mixed with other materials which are by regulation exempted.

complete feed A nutritionally adequate feed for a specific physiological state. It is compounded to be fed as the sole diet and is capable of maintaining life or promoting production (or both) without the consumption of any additional substance except water.

concentrate A feed used with another to improve the nutritive balance of the total and intended to be diluted and mixed to produce a supplement or a complete feed.

condensed (process) Reduced in volume by removal of moisture.

conditioned (process) Brought to predetermined moisture characteristics or temperature (or both) prior to further processing. See **tempered** (International term).

cones (part) Ovule or pollen-bearing scales from trees of the pine family.

cooked (process) Heated in the presence of moisture to alter chemical or physical characteristics (or both) or to sterilize.

corn See **maize** (International term).

cracked (process) Reduced in size by a combined breaking and crushng action. Refers to particles of grain.

cracklings (part) The residue that remains after removal (by dry heat) of fat from adipose tissue or skin of animals.

crimped (process) Rolled with corrugated rollers. The grain to which this term refers may be tempered or conditioned before it is crimped, and may be cooled afterward.

crown (part) On a seed plant, the point (usually at ground level) at which stems and roots merge.

crumbled (process) Broken with corrugated rollers. Refers to pellets.

crumbles (physical form) Pelleted feed reduced to granular form with corrugated rollers.

crushed (process) See **rolled** (International term).

cubes (physical form) See **pellets, range cubes.**

cull Material rejected, in grading or separating, as inferior.

culture Nutrient medium bearing a colony of specific microorganisms.

cultured (process) Biological material produced in a culture.

cured (process) Prepared for keeping or use (e.g., by drying, smoking, or salting or by using a chemical preservative).

customer-formula feed A commercial feed whose components are mixed according to the specific instructions of the final purchaser or contract feeder.

cuttings (part) Parts or sections of a plant or animal.

D-activated (process) Activated with vitamin D (e.g., by ultra-violet light). Refers to plant or animal sterol fractions.

debittered (process) Having had bitter substances removed.

defluorinated (process) Having had fluorine partially removed.

degermed (process) Having had the embryos wholly or partially separated from the starch endosperms. Refers to seeds. See **without germ** (International term).

dehulled (process) Having had the hulls removed. See **without hulls** (International term).

dehydrated (process) Having had most of the moisture removed by heat.

deribbed (process) Having had the primary veins removed. Refers to leaves.

dextrose equivalent A measurement of the reducing power of sugars and starch hydrolyzates calculated as dextrose. The equivalent is expressed as a percentage of the dry substance.

diet The feed and water regularly offered to or consumed by an animal.

digested (process) Subjected to prolonged heat and moisture, or to chemicals or enzymes with a resultant change or decomposition of the physical or chemical nature.

digestible energy See **apparent digestible energy.**

diluent (physical form) An edible substance that is mixed with a nutrient or additive to reduce its concentration and thereby make it more acceptable to animals, safer to use, or more amenable to being mixed uniformly in a feed. A diluent may also be a carrier.

distillers' grains (part) Grains from which alcohol or alcoholic beverages have been distilled.

distillers' residue (part) See **stillage** (International term).

distillers' solubles (part) Stillage filtrate.

distillers' stillage (part) See **stillage** (International term).

dressed (process) Made uniform in texture by breaking or screening lumps or by applying liquid(s). Refers to feed.

dried (process) See **dehydrated** (International term).

drug Defined by the U.S. Food and Drug Administration as follows:

> A substance (a) intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease in man or other animals or (b) a substance other than food intended to affect the structure or any function of the body of man or other animals.

dry See **dry matter content of feed samples.**

dry matter content of feed samples The dry matter content of feed samples and other materials is expressed on three dry matter basis: **as fed; partially dry;** and **dry.** Definitions of these terms follows:

as fed As fed refers to the feed as it is consumed by the animal; the term "as collected" is used for materials which are not usually fed to the animal, i.e., urine, feces, etc. If the analyses on a sample are affected by partial drying, the analyses are made on the "as fed" or "as collected" sample. Similar terms: **air dry** i.e. hay; **as received; fresh; green; wet.**

partially dry Partially dry refers to a sample of "as fed" or "as collected" material that has been dried in an oven (usually with forced air) at a temperature usually at 60° C or freeze dried and has been equilibrated with the air; the sample after these processes would usually contain more than 88% dry matter (12% moisture); some materials are prepared in this way so they may be sampled, chemically analyzed and stored. This analysis is referred to as "partial dry matter % of 'as fed' or 'as collected' sample." The partially dry sample must be analyzed for dry matter (determined in an oven at 105° C) to correct subsequent chemical analyses of the sample to a "dry" basis. This analysis is referred to as "dry matter % of partial dry sample". Similar term: **air dry** (sometimes air dry is used for "as fed"; see **as fed**).

dry Dry refers to a sample of material that has been dried at 105° C until all the moisture has been removed. Similar terms: **100% dry matter; moisture free.** If dry matter (in an oven at 105° C) is determined on an "as fed" sample it is referred to as "dry matter of as fed sample." If dry matter is determined on a partial dry sample it is referred to as "dry matter of partial dry sample". It is recommended that analyses be reported on the "dry" basis (100% dry matter or moisture free), and in addition the "as fed dry matter" should be reported.

dry-milled (process) Milled by tempering with a small amount of water or steam to facilitate separation into component parts. Refers to kernels of grain.

dry rendered (process) Having undergone (1) cooking in open steam-jacketed vessels until the water has evaporated and (2) removal of fat by draining and pressing. Refers to residues of animal tissues.

dust (part) Fine, dry particles of matter usually resulting from the cleaning or grinding of grain or other feedstuff.

ears (part) Fruiting heads of corn, including cobs and grain but not the husks. Syn: **cobs with grain.**

egg albumen (part) Whites of birds' eggs.

egg shells (part) The hard exterior coverings of eggs of birds.

egg white (part) The white of eggs from birds used separately from the yolk.

egg yolk Inner yellow-colored portion of the egg of birds.

elevator chaff and dust (part) Particles that accumulate in dust collectors above elevators that store grain.

emulsifier A material that lowers the surface tension of the system to which it is added.

endosperm oil (part) Oil obtained from endosperms.

ensiled (process) Preserved by ensiling, a process in which finely cut parts of plants, packed in an air-tight chamber (e.g., a silo), undergo an acid fermentation that retards spoilage.

entire plant (part) The whole plant, including the roots.

etiolated (process) Grown in reduced light. Refers to plants.

eviscerated (process) Subjected to removal of all organs. Refers to the great cavity of an animal's body.

expanded (process) Increased in volume as a result of abrupt reduction in pressure. Refers to a feed or feed mixture that is extruded after being subjected to moisture, pressure, and temperature to gelatinize the starchy part.

xpeller extracted (process) See **mechanically extracted.**

xternal marker See **indicator, external.**

xtracted, mechanical (process) See **mechanical extracted.**

xtracted, solvent (process) See **solvent extracted.**

xtruded (process) Pushed through orifices of a die under pressure. Refers to feed.

xtruded with steam (process) Pushed through orifices of a die under pressure and after preconditioning with steam.

xtruded without steam (process) Pushed through orifices of a die under pressure and in the absence of steam.

an air dried (process) Dried with a device producing a current of air.

an air dried with heat (process) Dried with a device producing a current of hot air. Syn: **artificially dried.**

at (part) A substance, solid or plastic at room temperature, composed chiefly of triglycerides of fatty acids.

atty acids (part) Aliphatic monobasic organic acids containing only the elements carbon, hydrogen, and oxygen.

atty acids ethyl (part) Saturated aliphatic monocarboxylic acids occurring naturally in fats, waxes, and essential oils in the form of ethyl ester, which is a class of compounds that yield ethyl alcohol on hydrolysis.

atty acids methyl ester (part) Saturated aliphatic monocarboxylic acids occurring naturally in fats, waxes, and essential oils in the form of methyl ester, which is a class of compounds that yield methyl alcohol on hydrolysis.

atty acids nonglyceride ester (part) Saturated aliphatic monocarboxylic acids occurring naturally in fats, waxes, and essential oils in the form of esters other than those of glycerol.

ecal markers See **indicators**; See **marker, fecal.**

eed(s) Material consumed by animals that contribute energy and nutrients (or both) to the diet.

eed additive concentrate Defined by the U.S. Food and Drug Administration as follows:

> An article intended to be further diluted to produce a complete feed or a feed additive supplement and is not suitable for offering as a supplement or for offering free choice without dilution. It contains, among other things, one or more additives in amounts in a suitable feed base such that from 100 to 1000 pounds of concentrate must be diluted to produce 1 ton of a complete feed. A "feed additive concentrate" is unsafe if fed free choice or as a supplement because of danger to the health of the animal or because of the production of residues in the edible products from food producing animals in excess of the safe levels established.

feed additive premix Defined by the U.S. Food and Drug Administration as follows:

> An article that must be diluted for safe use in a feed additive concentrate, a feed additive supplement or a complete feed. It contains, among other things, one or more additives in high concentration in a suitable feed base such that up to 100 pounds must be diluted to produce 1 ton of a complete feed. A feed additive premix contains additives at levels for which safety to the animal has not been demonstrated and/or which may result when fed undiluted in residues in the edible products from food producing animals in excess of the safe levels established.

feed additive supplement Defined by the U.S. Food and Drug Administration as follows:

> An article for the diet of an animal which contains one or more food additives and is intended to be:
>
> (1) Further diluted and mixed to produce a complete feed; or
>
> (2) Fed undiluted as a supplement to other feeds; or
>
> (3) Offered free choice with other parts of the ration separately available.
>
> A "feed additive supplement" is safe for the animal and will not produce unsafe residues in the edible products from food producing animals if fed according to directions.

feed grade Suitable for animal, but not human, consumption.

feed mixture See **formula feed.**

fermentation product (part) Product formed by enzymatic transformation of organic substrates.

fermentation solubles (part) Parts of stillage that pass through screens, consisting chiefly of water, water-soluble substances, and fine particles from the fermentation process.

fermented (process) Acted upon by yeasts, filamentous fungi, or bacteria in a controlled aerobic or anaerobic process. Refers to products (e.g., grains and molasses) used in the manufacture of alcohols, acids, vitamins of the B-complex group, and antibiotics.

fiber (part) An elongate tapering plant cell that has at maturity no protoplasm. It is found chiefly in the vascular tissues of plants, but may occur in other sites.

fiber by-product (part) A secondary product obtained during the manufacture of a fiber product (e.g., flax fiber by-product, which is obtained during the manufacture of flax).

finely ground (process) Reduced to very small particles by impact, shearing, or attrition.

finely screened (process) Separated according to particle size by passage through a finely woven meshed material.

finely sifted (process) Separated according to particle size by passage through a finely woven meshed material.

fines (part) Material that passes through a screen whose openings are smaller than the specified minimum size of crumbles, pellets, or substances such as citrus pulp.

fish stickwater (part) An aqueous, oil-free extract of cooked fish. It contains the aqueous cell solutions of the fish and any water used in processing.

flaked (process) (1) Prepared by a method involving the use of high heat, tempering, and rollers set close together. (2) Cut into flat pieces (e.g., potato flakes). Syn: **steamed flaked.**

flour (part) Soft, finely ground, bolted meal obtained by milling cereal grains and other seeds. It consists essentially of the starch and gluten of the endosperm.

flour by-product (part) A secondary product obtained during the milling of grain for preparation of bread flour.

flower extract (part) Material removed from flowers by leaching with a liquid.

fodder (part) Green or cured plants (e.g., corn and sorghum) that are fed in their entirety, except for the roots, as forage. See **aerial part** (International term).

food additive Defined by the U.S. Food and Drug Administration as follows:

> Any substance which becomes a component of or affects the characteristics of a feed or food if such substance is not generally recognized among experts qualified by scientific training and experience to evaluate its safety as having been adequately shown through scientific procedures to be safe under the conditions of its intended use. Excepted are substances having "prior sanction" and pesticide chemicals under certain conditions.

food grade Suitable for human consumption.

forage Aerial plant material, primarily grasses and legumes containing more than 18 percent crude fiber on a dry basis, used as animal feed. The term usually refers only to plant materials as pasture, hay, silage, and green chopped feeds.

formula feed Feed consisting of two or more ingredients proportioned, mixed, and processed according to the manufacturer's specifications.

free choice A feeding system in which animals are given unlimited access to the separate feeds or mixtures of feeds constituting the diet.

fresh Recently produced or gathered; not stored, cured, or preserved.

fungal amylase process distillers' grains with solubles (part) The solid residue resulting from combining distillers' grains and solubles and drying after hydrolysis of the starch by fungal amylase.

fused (process) Blended by melting.

gelatinized (process) Ruptured by a combination of moisture, heat, and pressure. Refers to starch granules of a feed.

germ (part) Embryo of a seed.

germ oil (part) Oil extracted from the germ of cereal grains or other seeds.

gin by-product (part) Material that remains after cotton fibers and seeds of cotton bolls are separated in ginning.

gizzard (part) The second stomach of a bird; it has thick muscular walls and a tough lining for grinding food that has been partially digested in the crop.

gland tissue (part) An aggregate of cells of various special secreting organs with their intercellular contents.

glue by-product (part) A secondary product obtained in manufacturing glue.

gluten (part) The tough, viscid, nitrogenous substance that remains after the flour of wheat or other grain has been washed to remove the starch.

gluten low glutamic acid (part) Gluten from which some of the glutamic acid has been removed.

gossypol (part) A phenolic pigment in cottonseed that is toxic to some animals.

graham flour (part) Whole wheat flour; often a mixture of flour and bran.

grain (part) Seed from cereal plants.

grain clippings (part) The hulls, fragments of groats, immature grains, and chaffy material obtained during the dehulling of oats and other cereal grains.

grain distillers' saccharomyces (part) A genus of unicellular yeasts, which are fungi having little or no mycelial growth, reproducing asexually by budding, and typically produce alcoholic fermentations on carbohydrate substrates.

grain fines (part) Small particles screened from cracked grain.

grain screenings (part) Defined by the Association of American Feed Control Officials as material obtained from screening grains and " consists of 70% or more of grains, including light and broken grains, wild buckwheat, and wild oats. It must contain not more than 6.5% ash". See **screenings.**

grease (part) Animal fats with a titer below 40° C.

grits (part) Coarsely ground grain from which the bran and germ have been removed.

groats (part) Grain from which the hulls have been removed.

gross energy (GE) The amount of heat that is released when a substance is completely oxidized in a bomb calorimeter containing 25 to 30 atmospheres of oxygen. Syn: **heat of combustion.**

gross energy digestion coefficient The percentage of gross energy apparently absorbed.

$$\text{GE digestion coefficient} = \frac{(\text{GE of food per unit dry wt x dry wt of food}) - (\text{GE of feces per unit dry wt x dry wt of feces})}{\text{GE of food per unit dry wt x dry wt of food}} \times 100$$

ground (process) Reduced in particle size by impact, shearing or attrition.

grounds with chicory residue (part) Sediment (e.g., coffee grounds) that contains chicory residue.

hatchery by-product (part) A mixture of eggshells, unhatched eggs, and culled chicks that has been cooked, dehydrated, and ground, with or without partial removal of fat.

hay (part) The aerial parts of grass or herbage cut and cured for animal feeding.

heads (part) The parts of a plant that contain the seeds (e.g., sorghum heads).

heads without seeds (part) Heads from which the seeds have been removed.

heat and acid precipitated (process) Separated from a suspension or solution by action of heat and acid.

heat hydrolyzed (process) See **hydrolyzed.**

heat processed (process) Prepared by a method involving the use of elevated temperatures, with or without pressure.

heat processed flaked (process) See **flaked.**

heat rendered (process) Melted, extracted, or clarified by heating. (Water and fat are usually removed).

homogenized (process) Broken down into evenly distributed globules small enough to remain as an emulsion for long periods. Refers to particles of fat.

hulls (part) Outer covering of seeds.

husks (part) (1) Leaves enveloping an ear of corn. (2) Outer coverings of kernels or seeds, especially when dry and membranous (e.g., almond husks).

hydraulically extracted (process) See **mechanically extracted** (International term).

hydrolyzed (process) Subjected to hydrolysis, a process by which complex molecules (e.g., those in proteins) are split into simpler units by chemical reaction with water molecules. (The reaction may be produced by an enzyme, catalyst, or acid or by heat and pressure).

indicator, external Substances which are added to the diet or taken orally and are minimally absorbed from the alimentary tract and may be virtually completely recovered unchanged in the feces (e.g., chromic oxide, ferric oxide, dyes, radioactive materials). They are used to estimate fecal output or dry matter intake. Syn: **external marker.**

indicator, internal Substances which occur naturally in the diet are minimally absorbed from the alimentary tract and may be virtually completely recovered unchanged in the feces (e.g., lignin, chromogen, fecal nitrogen, silica, the acid soluble fecal fraction, methoxyl and fiber). They are used to estimate apparent digestibility and dry matter intake. Syn: **internal marker.**

indicator, urinary A substance which is completely absorbed from the alimentary tract and recovered in the urine.

internal marker See **indicator, internal.**

iodinated (process) Treated with iodine.

irradiated (process) Treated, prepared, or altered by exposure to radiant energy.

joints (part) Nodes of plant stems.

joule (J) The International Organization for Standardization defines 1 joule as "the work done when the point of application of a force of one newton (N) is displaced through a distance of one meter (m) in the direction of the force". One calorie is equal to 4.184 joules. See **calorie.**

juice (part) The aqueous substance obtained from biological tissue by pressing or filtering, with or without addition of water.

katabolizable energy See **nitrogen equilibrium metabolizable energy (ME_n)** (International term).

kernel (part) In cereals, a whole grain; in other species, a dehulled seed.

kibbled (process) Cracked or crushed. Refers to baked dough or to extruded feed that was cooked before or during the extrusion process.

kilocalorie (kcal) One thousand small calories. This term is preferable to large Calorie. See **calorie.**

lactase-hydrolyzed (process) See **hydrolyzed.**

lactic acid bacteria (part) Any of various bacteria (chiefly of the genera *Lactobacillus* and *Streptococcus*) that produce predominantly lactic fermentation on suitable media.

lactose (part) A white crystalline disaccharide found in milk.

lard (part) Rendered fat of swine.

leached (process) Affected by the action of percolating water or other liquid.

lecithin (part) A specific phospholipid; the principal constituent of crude phosphatides derived from oil-bearing seeds.

lint (part) A fibrous coat of thickened convoluted hairs on the seeds of cotton plants.

litter (part) Fibrous material used on the floor of poultry houses, with the poultry excreta.

low oil (part) Containing very little oil (usually 5 percent or less).

magnetic separation (process) Removal of ferrous material by magnets (e.g., removal of iron objects from mixed feed).

malt (part) Sprouted and steamed whole grain from which the radicle has been removed.

malted (process) Converted into malt or treated with malt or malt extract.

malt hulls (part) Product, consisting almost entirely of hulls, that is obtained in cleaning malted barley.

maltose processed (process) Treated with the enzyme maltase.

malt sprout cleanings with hulls (part) Product obtained in cleaning malted barley or in recleaning malt. (Contains less protein than malt sprouts with hulls.)

malt sprouts with hulls (part) Sprouts from malted barley combined with malt hulls.

marc (part) Pulp, seeds, and skins from grapes. See **pulp** (International term).

marker, fecal A substance used to color or mark the ration so the feces produced from the ration may be collected quantitatively (e.g., iron oxide or carmine). See **indicator, external.**

mash (physical form) A mixture of ingredients in meal form. Syn: **mash feed.**

meal (physical form) An ingredient(s) that has been ground or otherwise reduced to a particle size somewhat larger than flour, unbolted.

meat (part) Flesh obtained from slaughtered mammals. (The term includes skeletal muscle, cardiac muscle, and the tongue, diaphragm, and esophagus; it sometimes includes the accompanying fat, skin, sinews, nerves, and blood vessels; it does not include the lips, snout, and ears.)

meat stickwater (part) An aqueous, fat-free extract of meat. (It is obtained in wet rendering meat products and contains the aqueous cell solutions, the soluble glue proteins, and water condensed from the steam used in wet rendering.)

meats (part) See **nut meats.**

meats with hulls (part) Certain nut meats (e.g., those of peanuts) combined with their hulls.

mechanically extracted (process) Extracted by heat and mechanical pressure. Refers to removal of fat or oil from the seeds. Syn: **expeller extracted, hydraulically extracted, old process, expressed.**

mechanically extracted caked (process) Extracted from seeds by heat and mechanical pressure in such a way that the remaining product (e.g., cottonseed meal) is caked. Refers to fat or oil.

media (part) Nutrient substrate for culturing bacteria (or other organisms) or cells.

medicated feed (part) (1) A feed that contains drug ingredients intended a) to cure, mitigate, treat, or prevent diseases of animals other than man or b) to affect the structure or functioning of the bodies of animals other than man. (2) A feed that contains an antibiotic intended to promote growth or increase feed efficiency.

medium with yeast (part) Cells of yeast combined with (1) the liquor containing the medium in which the cells grow and (2) the by-products of the cells' metabolism.

megacalorie (Mcal) One million small calories. See **calorie.**

metabolizable energy (ME) Food intake gross energy, minus fecal energy, minus energy in the gaseous products of digestion, minus urinary energy.

micro-ingredients Vitamins, minerals, antibiotics, drugs, and other materials normally required in small amounts and measured in milligrams, micrograms, or parts per million.

micronized (process) Heating by gas-fired infrared generators to 150°C (300°F). The term micronized was coined to describe this dry heat treatment since microwaves are emitted in the heating process. Refers to grain.

middlings (part) A by-product of flour milling that contains varying proportions of endosperm, bran, and germ.

milk albumin (part) The coagulated protein fraction from whey.

mill dust (part) Fine feed particles resulting from handling and processing feed and feed ingredients.

mill residue (part) Part of a feed or feed ingredient that remains after a milling process.

mill run (part) A product as it comes from the mill, ungraded and usually uninspected.

mixed (process) Two or more materials combined by agitation to a specific degree of dispersion.

mixed screenings (part) Defined by the Association of American Feed Control Officials as a mixture of material obtained from screening grains and of the screenings that are "... excluded from the preceding definition (grain screenings). It must contain not more than 27% crude fiber and not more than 15% ash". See **screenings, grain screenings.**

molasses (part) The thick, viscous by-product resulting from the manufacture of refined sugar.

molasses distillers' solubles (part) Liquid containing dissolved substances obtained from molasses stillage.

molasses fermentation solubles (part) That portion of molasses stillage which passes through screens, being composed mostly of water, water-soluble substances and fine particles of the grain.

molded (process) Overgrown or otherwise acted upon by fungi.

needles (part) Slender, pointed leaves, as of pine, spruce, and larch.

net energy (NE) The difference between metabolizable energy and heat increment. It includes the amount of energy used for maintenance only or for maintenance plus production. Net energy can also be defined as the gross energy of the gain in tissue or of the products synthesized plus the energy required for maintenance. Below the critical temperature, net energy includes part or all of the heat increment. Reports on net energy should clearly state which functions are included. Subscripts are suggested. For example, there may be values for net energy for maintenance plus production (NE_{m+p}), net energy for maintenance only (NE_m), or net energy for production only (NE_p).

net energy for maintenance (NE_m) The part of net energy expended to keep an animal in energy equilibrium. When an animal is in this state, there is no net gain or loss of energy in the body tissues. The net energy for maintenance for a producing animal may be different from that for a nonproducing animal of the same weight. The difference is due to changes in amounts of hormones produced and to differences in voluntary activity. This difference may be charged to maintenance, but in practice it is usually charged to the production requirement.

net energy for production (NE_p) The part of net energy, in addition to that needed for body maintenance, that is used for work or for tissue gain (growth or fat production or both), or for the synthesis of, for example, a fetus, milk, eggs or wool. It should always be clearly stated which production fractions are included. For example, there could be: NE_{egg}; NE_{gain}; NE_{milk}; NE_{preg}; NE_{wool}; or NE_{work}.

new process (process) See **solvent extracted** (International term).

nitrogen equilibrium metabolizable energy (ME_n); Food intake gross energy minus fecal energy, minus energy in the gaseous products of digestion, minus urinary energy, corrected for nitrogen retained or lost from the body. For birds and monogastric mammals, the gaseous products of digestion do not need to be considered. For mammals the correction is made as follows: for each gram of nitrogen lost from the body (equal to negative nitrogen balance) 7.45 kcal are added (correction$^+$) to the metabolizable energy and for each gram of nitrogen retained in the body (equal to positive nitrogen balance) 7.45 kcal are subtracted (correction$^+$) from the metabolizable energy. As this value was obtained with dogs, it may not be entirely correct for other animals. In the case of animals synthesizing products such as milk or eggs, no correction is made for the nitrogen in these products. Similar term: **katabolizable energy.**

$$ME_n = GE_i - FE - UE - GPD \pm \text{correction}^+$$

For birds, the preferable factor is 8.73 kcal because it represents the average gross energy of urine not contaminated with feces.

nodes (part) The joints of a stem; the point of insertion of a leaf or leaves.

nuts with shells (part) Dry indehiscent fruit having a hard, bony ovary wall.

nuts with shells with husks (part) Dry indehiscent fruit having a hard, bony wall enclosed by a dry outer covering (e.g., almonds).

nut meats (part) Nuts from which the shells have been removed.

offal (part) Low-grade residue left from the milling of some product.

oil (part) A substance that consists chiefly of triglycerides of fatty acids and is liquid at room temperature.

oil refinery lipid (part) By-product obtained in refining an edible oil.

old process (process) See **mechanically extracted** (International term).

orts The feed which is not consumed when an animal is on a feeding, digestion or balance trial. Syn: **weighback.**

partially dry (process) See **dry matter content of feed samples.**

partially extracted (process) Partially removed from a feed by a chemical or mechanical process. Refers to fat or oil.

paunch contents (part) See **rumen contents** (International term).

pasture (part) Grass or other plants grown for grazing animals; herbage.

pearl by-product (part) By-product obtained in pearling barley. See **pearled.**

pearled (process) Reduced by machine brushing to smaller, smooth particles. Refers to dehulled grains (e.g., pearled barley).

pectin (part) Any of the group of colorless amorphous methylated pectic substances occurring in plant tissues or obtained by restricted treatment of protopectin obtained from fruits or succulent vegetables, that yield viscous solutions with water and when combined with acid and sugar yield a gel.

peel (part) See **skin** (International term).

peelings (part) Outer layers of fruits or vegetables that have been removed.

pelleted (process) Made into pellets.

pellets (physical form) Agglomerated feed formed by compacting and forcing feed through die openings by a mechanical process. Syn: **pelleted feeds, hard pellet.** Soft pellets are those containing sufficient liquid to require immediate dusting and cooling. Syn: **high molasses pellets.** See **block, brick.**

pH The negative logarithm (base 10) of the hydrogen ion concentration.

pith (part) Continuous central strand of parenchymatous tissue occurring in the stems of most vascular plants.

pits (part) Stones of drupaceous fruits.

pit silo A below-ground bin sealed when full to exclude air and used for storing silage.

pod (part) A dehiscent seed vessel or fruit (e.g., pea or bean pod).

polished (process) Smoothed by a mechanical process. Refers to grain (e.g., polished rice).

polished rice by-product (part) Another product produced during the preparation of polished rice.

polishings (part) A by-product of rice consisting of the fine residue that accumulates as the rice kernels are polished (after hulls and bran have been removed).

pollen (part) A mass of microspores (usually resembling a fine dust) in a seed plant.

pomace (part) Pulp, seeds, and stems from fruit. See **pulp** (International term).

popped (process) Heated with accompanying expansion until a high percentage of actual explosion or eruption occurs. Refers to grain (e.g., popped corn (maize).

potassium salts (part) A mineral compound containing potassium.

precipitated (process) Separated from suspension or solution as a result of a chemical or physical change.

premix A uniform mixture consisting of one or more micro-ingredients and a diluent or carrier (or both) and used to facilitate uniform distribution of the micro-ingredients within a larger mixture.

premixed (process) Mixed with a diluent or carrier (or both) preliminary to final mixing with other ingredients.

prepressed solvent extracted (process) Removed from materials partly by heat and mechanical pressure and (later) partly by organic solvents. Refers to fat or oil.

pressed (process) Compacted or molded by pressure, or extracted under pressure. Refers to fat, oil or juice.

pressure cooked (process) Heated either wet or dry and under pressure greater than atmospheric pressure.

presswater Aqueous extract obtained from fish or meat by hydraulic pressing of the fish or meat followed by removal of fat or oil (or both), usually by centrifuging.

process by-product (part) One or more by-products from food manufacture.

process residue (part) Material remaining after some of the constituents of the original material (e.g., pineapple slices for canning) have been removed in a manufacturing process.

protein (part) Any of a large class of naturally occurring complex combinations of amino acids.

pulp (part) The solid residue (including seeds and skins, if present) remaining after extraction of juices from fruits, roots, or stems. Syn: **bagasse, pomace, marc.**

pulp fines (part) See **fines.**

pulverized (process) Finely ground. See **ground** (International term).

raisin syrup by-product (part) Residue from the manufacture of raisin syrup.

range cake (physical form) Cake fed on the range, usually on the ground (e.g., cottonseed cake). See **cake.**

range cubes (physical form) Large pellets intended to be fed on the ground. Syn: **range wafers.**

range wafer (physical form) See **range cubes.**

ration The total amount of feed (diet) allotted to one animal for a 24-hour period.

refuse (part) Damaged, defective or excess edible material produced during or left over from a manufacturing or industrial process.

retort-charred (process) Partly burned in a closed retort. Refers to bone black.

roasted (process) Cooked in an oven by dry heat.

rolled (process) Compressed between rollers. Rolling may entail tempering or conditioning. Syn: **steam rolled.**

roughage Plant material, primarily by-products of crop production, high in crude fiber, low in digestibility and low in protein. Examples are: straw, stover, bagasse, peanut and oat hulls, and maize (corn) cobs.

rumen contents (part) Contents of the first two compartments of the stomach of a ruminant. Syn: **paunch contents.**

scalped (process) Removed by screening. Refers to large particles.

scoured (process) Cleansed by impact or friction. Refers to removal of the beard from the wheat kernel.

scratch grain (physical form) Whole, cracked, or coarsely cut grain. Syn: **scratch feed.**

screened (process) Separated into different sizes by being passed over or through screens.

screenings (part) Defined by the Association of American Feed Control Officials as material "... obtained in the cleaning of grains which are included in the United States Grain Standard Act and other agricultural seeds. It may include light and broken grains and agricultural seeds, weed seeds, hulls, chaff, joints, straw, elevator or mill dust, sand, and dirt. It must be designated as Grain Screenings, Mixed Screenings and Chaff and/or Dust. No grade of screenings must contain any seeds or other material in amount that is either injurious to animals or will impart an objectionable odor or flavor to their milk or flesh. The screenings must contain not more than four whole prohibited noxious weed seeds per pound and must contain not more than 100 whole restricted noxious weed seeds per pound. The prohibited and restricted noxious weed seeds must be those named as such by the seed control law of the state in which the screenings are sold or used". See **chaff and dust, grain screenings, mixed screenings.**

seed (part) The fertilized and ripened ovule of a plant.

seedballs (part) Rounded and usually dry or capsular fruits (e.g., potato seed).

seed skins (part) Outer layers of some seeds (e.g., beans and peas).

self-fed Provided on a continuous basis. Refers to a component of a diet or to mixed components. Self-feeding enables animals to eat at will.

separation (process) Classification of particles by size, shape, or density.

separation, magnetic (process) See **magnetic separation.**

shells (part) The hard, fibrous, or calcareous covering of a plant or animal product i.e., nut, egg, oyster.

shoots (part) The immature aerial parts of plants.

shorts (part) A by-product of flour milling that consists of germ, offal, fine particles of bran, and small amounts of flour.

shredded (process) Cut into long, thin pieces.

shrunken (process) Compacted as by partial loss of water; or become smaller in size.

sifted (process) Separated into different sizes by being passed through wire or nylon sieves.

silk (part) The styles on an ear of corn.

sizing (process) See **screening.**

skimmed (process) Removed by settling, flotation, or centrifuging. Refers to removal of the lighter part of a liquid from the heavier part (e.g., removal of cream from milk).

skin (part) (1) The outer covering of a fruit or seed. Syn: **rind, husk, peel.** (2) The dermal tissue of animals.

skin scrapings (part) Scrapings from hides of slaughtered animals.

solubles (part) Dissolved substances (and possibly fine solids) in liquids obtained in processing animal or plant materials.

solubles with low potassium salts and glutamic acid (part) The residue from manufacturing monosodium glutamate from Steffen's filtrate.

solvent extracted (process) Removed from material (e.g., soybean seeds) by organic solvents. Refers to fat or oil. Syn: **new process.**

solvent extracted caked (process) Fat or oil removed from materials by organic solvents and pressed to make a cake.

solvent extracted flakes with reduced protein and carbohydrate (part) The product remaining after some of the protein and nitrogen free extract have been removed from dehulled, solvent extracted soybean flakes.

spent (process) Exhausted of absorbing properties (e.g., spent bone black).

spent residue liquid (part) The liquid residue that remains after extracting starch from potatoes.

spice (part) Any of various aromatic vegetable products used to season foods.

spine (part) A specialized, stiff, sharp-pointed leaf form.

split pea by-product (part) The residue from the manufacture of split peas, consisting primarily of skins and broken and rejected peas.

stabilized (process) Made more resistant to chemical change by an added substance.

stack ensiled (process) Ensiled while in a pile above ground.

stalk (part) The main stem of a herbaceous plant.

starch (part) A white, granular polymer of plant origin. The principal part of seed endosperm.

starch by-product (part) The residue from the manufacture of starch (e.g., starch from potatoes).

steam flaked (process) Prepared by a method utilizing steam heat for 12 to 14 minutes, tempering and rollers set close together to make a thin flake. See **flaked.**

steamed (process) Treated with steam, as in steam cooking. Syn: **steam cooked, steam rendered, tanked.**

steam rolled (process) Preconditioned in steam under pressure for a short time and then compressed between rollers.

steep-extracted (process) Soaked in water or other liquid to remove soluble materials. Refers to grain (e.g., corn that is being wet milled).

steepwater (part) Water containing soluble materials recovered by steep-extraction. See **steep-extracted.**

Steffen process (process) A process for treating beet molasses to recover additional sugar through precipitation of calcium sucrate.

Steffen's filtrate (part) The filtrate obtained from the precipitation of calcium sucrate in the Steffen process and used chiefly as a source of amino acids.

stem butts (part) Proximal ends of stems.

stems (part) The coarse, aerial parts of plants which serve as supporting structures for leaves, buds, and fruit.

sterols (part) Solid cyclic alcohols that are the major constituents of the unsaponifiable part of animal and vegetable fats and oils.

stick (part) Condensed stickwater or presswater. See **fish stickwater, meat stickwater, presswater.**

stickwater (part) See **fish stickwater, meat stickwater.**

stickwater solubles (part) Water-soluble fraction from fish from which the liquid, originally obtained by steam-cooking and pressing the fish, has been removed.

stickwater solubles precipitated (part) Precipitated water-soluble fraction from fish stickwater.

stillage (part) The mash from fermentation of grains or molasses after removal of alcohol by distillation.

stover (part) Stalks and leaves of corn or sor-

ghum after the ears of corn or heads of sorghum have been harvested. International terms: **aerial part without ears without husks, aerial part without heads.**

straw (part) Plant residue remaining after separation of the seeds (grain, peas, or beans) by threshing. See **threshed.**

straw pulp (part) A moist, slightly cohering mass consisting of ground straw treated with water.

stubble (part) The lower parts of plant stems that remain standing in the field after harvest.

sulfite waste liquors (part) Residues from products (e.g., wood pulp) treated with sulfite.

sulfur fertilized (process) Supplied with a form of elemental sulfur as a nutrient. Refers to plants.

sun-cured (process) Dried by exposure to the sun.

sun-cured brown (process) Partially dried by exposure to the direct rays of the sun, then put in a stack or bale, where heat from microbial action causes browning.

sun-cured on riders (process) Stacked on tripods made of poles, then sun-cured. Refers to forage.

supplement A feed used with another to improve nutritive balance or performance. It may be fed undiluted as a supplement to other feeds, offered free choice with other parts of the diet separately available, or mixed with other feed ingredients to produce a complete feed.

sugar (part) A sweet crystallizable substance that consists essentially of sucrose (as used in describing feeds) that occurs naturally in the most readily available amounts in sugarcane, sugar beet, sugar maple, sorghum and sugar palm.

syrup (part) Concentrated juice of a fruit or plant.

syrup by-product (part) A secondary product consisting chiefly of the fatty fraction of corn starch together with protein and residual carbohydrate. Syn: **corn syrup refinery insolubles.**

tallow (part) Animal fats with titer above 40°C.

tankage (part) See **carcass residue with blood** (International term).

tanked (process) See **steamed** (International term).

tassels (part) Male inflorescences of some plants (e.g., the tassels at the end of a stalk of corn).

tempered (process) Brought to predetermined moisture characteristics or temperature (or both) before further processing. Syn: **conditioned.**

threshed (process) Separated from straw by impaction and subsequent screening. Refers to grain, peas, or beans. See **straw.**

titer The solidification point (determined by heating or cooling) of the fatty acids liberated from a fat by hydrolysis.

toasted (process) Browned, dried, or parched by exposure to a wood fire or to gas or electric heat.

tops (part) The uppermost part of plants (e.g., sugar cane tops). See **aerial parts.**

toxicity extracted (process) Treated to remove a poisonous substance.

trace mineral Mineral nutrient required by animals in very small amounts.

trench silo A trench that is filled with fresh forage and then sealed to exclude air and permit the formation of silage.

tubers (part) Short, thickened fleshy stems, or rhizomes, that usually form underground and bear minute scaled leaves, each with a bud capable of developing into a new plant (e.g., potato).

unsaponifiable matter (part) Ether soluble material extractable after complete reaction with strong alkali.

urea (part) A highly soluble, crystalline, white compound used as a source of nonprotein nitrogen for ruminants. It is produced by mammals during nitrogen metabolism, and synthetically.

urinary indicator See **indicator, urinary.**

vacuum dehydrated (process) Dehydrated under vacuum. See **dehydrated.**

vinegar fermentation grains (part) Grains used as the substrate to provide a source of carbohydrate that is transformed into vinegar

vine hay (part) Cut and sun-cured herbage from vines. International term: **hay.**

vines (part) Any plant whose stems require support, or lie on the ground. International term: **aerial parts.**

viscera (part) All organs in the great cavity of the body. The viscera of fish include the gills, heart, liver, spleen, stomach, and intestines and their contents. The viscera of mammals include the esophagus, heart, lungs, liver, spleen, stomach, and intestines (but not their contents). The viscera of poultry include the esophagus, heart, liver, spleen, stomach, crop, gizzard, undeveloped eggs, and intestines and their contents.

vitamins Organic compounds that function as parts of enzyme systems that are essential for transmitting energy and regulating metabolism.

wafered (process) Agglomerated by compressing into a form that usually measures more in diameter or cross-section than in length. Refers to fibrous feeds (e.g., wafered alfalfa hay).

waste (part) See **refuse** (International term).

water-extracted (process) Removed with water. Refers to a product from which soluble substances have been removed.

weathered (process) Exposed to air, sunlight, and precipitation.

weighback The feed which is not consumed when an animal is on a feeding, digestion or balance trial. Syn: **orts.**

wet (physical form) Material containing liquid, or which has been soaked or moistened with water or other liquid.

wet-milled (process) Steeped in water, which may contain sulfur dioxide, to facilitate separation of the parts. Refers to kernels of corn.

wet-rendered (process) See **steamed.**

whey (part) The watery part of milk separated from the coagulated curd.

whey albumin (part) One of the whey proteins.

whey fermentation solubles (part) Whey together with the water-soluble substances produced during the fermentation of whey.

whey low lactose (part) The product resulting from removal of some of the milk sugar from whey.

whole plant (part) See **entire plant** (International term).

whole pressed (process) Pressed to remove oil. Refers to seeds with hulls (e.g., cotton seeds).

wilted (physical form) A product that has lost turgor as a result of desiccation.

without germ Having had the embryos wholly or partially separated from starch endosperms. Refers to seeds. See **degermed.**

without hulls Having had the hulls removed. See **dehulled.**

wort (part) The liquid portion of malted grain. It is a solution of malt sugar and other water soluble extracts from malted mash.

yeast fermentation grains (part) Residue of grains after being used as a source of carbohydrate for yeast fermentation.

yeast with medium (part) See **medium with yeast.**

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