



# GEONOMICS

INSTITUTE • Middlebury, Vermont

PN-ABP-189  
8-2-93

**PROJECT REPORT  
A UNIFORM TRANSACTION AND QUALITY CONTROL SYSTEM  
FOR A PRIVATIZED ESTONIAN DAIRY SECTOR  
MARCH 1993**

Michael P. Claudon, President  
John MacKillep, Dairy Industry Specialist

## 1. Introduction

This work was completed as a subcontract of a grant to Land O' Lakes by the United States Agency for International Development in support of Agricultural Cooperative/Business Development and Training in Central and Eastern Europe, grant number EUR-0024-G-00-1C72-00, project number 180-0024.

Under this subcontract, the Geonomics Institute rendered a portion of the professional and technical services in Estonia in support of the activities described in the program description contained in an attachment to the USAID grant identified above (FMC-08).

## 2. Scope of Work

During 42 days of direct technical consultation in Estonia, we prepared and delivered the following to the Estonian Parliament's Agriculture and Economy Committee and to the Ministry of Agriculture; as well as to Land O' Lakes and USAID:

- 1) A transaction documentation system for recording all transactions between the farmer and the dairy plant;
- 2) A payments schedule based on tested milk fat, protein, cleanliness and other components; and
- 3) A uniform system for timely payments by the milk plant to the farmer.

These deliverables have been codified in the *Estonian Act Relating to the Production and Processing of Milk and Milk Products* as presented in the concluding section of this report.

## 3. Analysis

The Estonian government must deal with a variety of critical policy issues, agricultural and non-agricultural, as it proceeds through the transition from Soviet domination to a market democracy. One major institutional impediment to privatization and commercialization in each of the Baltic countries is the absence of an organized, uniform, and reliable farm-to-milk-plant transaction and quality assurance system.

For example Estonia's soon-to-be private dairy farmers are insecure regarding the conduct of business in a free market. A major source of this insecurity is the currently chaotic and unreliable state of transactions between the farmer and his (her) milk plant. Farmers do not believe they will be paid for their milk on a timely and reliable basis. The knowledge that some private farmers throughout Estonia are going for months without being paid, but continue shipping milk, nonetheless, is severely compounding this insecurity.

Since milk is a perishable item that cannot be inventoried on the farm, national policies throughout the world have been developed to assure an orderly transaction between milk plant buyer and the farmer seller. Not only is the farmer paid on a timely basis, his product's quality is regularly tested.

The legislation growing out of this project provides a simple definition of legal milk in Estonia. The draft dairy regulations will be incorporated into the Estonian Food Act currently being written by the Ministry of Agriculture and the Ministry of Social Affairs and Health. Although these regulations could stand alone as dairy law, the Parliament has made establishing an Estonian food quality and safety law one of its highest priorities. Including our completed work in the larger law is seen as catalyzing the remainder of the drafting process.

The key accomplishment of the work is that it assures Estonian consumers a safe and high-quality supply of milk and milk products. The draft law's system of industry self-regulation tasks the Ministry of Agriculture with a key regulatory role without requiring additional personnel or budgetary requirements.

- The regulations mandate that milk handlers and milk producers enter into a fully documented, easy to understand, orderly national system of payment and accounting for transactions.
- In order to be issued a permit to process milk by the Ministry of Agriculture, a handler must employ a certified milk inspector.
- The regulations are very specific regarding the qualifications and duties of the certified milk inspector. The certified milk inspector is the quality assurance agent in the field. To supplement the function of the certified milk inspector the regulations include a dairy farm inspection worksheet, as an attachment. The worksheet provides a guide to the inspection of dairy farms and is a tool that demonstrates the meaning of the sanitation requirements of dairy farms.

The key elements of the regulations are designed to be implemented over a period of four years. These include specific quality standards for raw and pasteurized milk, sanitation requirements of dairy farms and milk plants, specific penalties for failure to comply with the regulations, laboratory techniques that meet International Dairy Federation standards, and specific behavior of handler and producer to assure payment for milk and verified accounting of raw milk. Although the quality standards are extremely important, the single most critical item within the regulations is the certified milk inspector.

The restructuring and downsizing of the Ministry of Agriculture from a staff of approximately 400 to its current level of 60 has anticipated a successful conclusion to our project. Included in the restructured MOAG is a new department designed to process and issue the mandated permits and conduct the mandated laboratory inspections. Once Parliament enacts this legislation, which is scheduled for action this spring, the mechanisms for implementing the regulations are in place, and Estonia's dairy industry can begin its movement toward attaining world class quality standards.

The final draft was well received when presented at the *Estonian National Forum on Agricultural Policy and Training*, organized by Land O' Lakes and the Estonian Dairy Association (EDA) on March 15, 1993, in Tartu, Estonia. The draft law has subsequently been presented to the Ministry of Agriculture, where it received the strong endorsement of Minister of Agriculture

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

Leetsar. EDA President Arno Kannike delivered the draft law to the annual meeting of the EDA on March 23, and then to the National Agricultural Forum by the Ministry of Agriculture on March 26. We have been informed that the draft was well received by both audiences.

Finally, and particularly important to the long run commercial viability of Estonia's dairy industry, the full acceptance of our recommended implementation schedule as meeting EC and US milk quality standards positions Estonia to market milk and milk products, not only in the former Soviet Union, but also in hard currency Western markets. By 1997 Estonia will be enforcing, and quite possibly exceeding, quality standards as high as those found in the EC. At that point, Western market penetration becomes a viable export option to a dairy industry that has tremendous potential to produce.

### 4. Ensuring Quality Milk in an Orderly Market

CONCEPT: milk flows from the farmer to the consumer as follows:

farmer ---> handler ---> wholesaler ---> retailer ---> consumer

There are a large number of farmers, dispersed geographically and of varying size, who produce the same product (milk). There are only a small number of handlers. Therefore, the government plays a role in regulating milk transactions between the farmer and the handler in order to avoid chaos in the market that can have a negative impact on the supply of milk to consumers.

#### MILK QUALITY STANDARDS

Government sets certain standards to assure milk quality. Milk that meets these quality standards is called "legal milk." Quality standards require that milk contain no antibiotics, chemicals, or other contaminating residues that may be harmful to the health of the consumer. The government also sets limits on the acceptable level of bacteria in milk. The government's role is to protect the handler by guaranteeing that milk received from the farmer meets minimum quality standards.

#### REGULATION OF MILK TRANSACTIONS

Since milk on the farm cannot be stored or processed on the farm, it must be collected every day or every other day and refrigerated properly. This fact makes dairy farming unique. The handler receives the product daily, but the income generated from the product does not come back to the farmer on a daily basis. To assure that farmers are paid on a regular basis and receive documentation to explain the payment, the government sets a uniform system for payments to farmers that all handlers must abide by.

#### DEVELOPING REGULATIONS

The regulatory process begins at the legislative level. The Parliament enacts legislation that sets milk quality standards and sets the rules for orderly milk transactions. In developing the legislation, Parliament seeks the advice of the Ministry of Agriculture. The Ministry of Agriculture, in turn, may seek the advice of farmers, handlers, consumers, and others.

#### Implementing Milk Quality Regulations

The regulation of milk is conducted by the handler. The handler tests the quality of the milk on a monthly basis and provides the results of the tests to the Ministry of Agriculture each month.

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

The handler employs experts who will help locate the source of problems if a farmer is found to be in violation of quality standards. The handler helps the farmer correct the problems.

The Ministry of Agriculture may adopt measures to deal with farmers who do not cooperate with milk quality regulations. If a farmer is found to be in violation of milk quality regulations three times during a five-month period, the farmer can be prohibited from shipping milk until the problem is corrected.

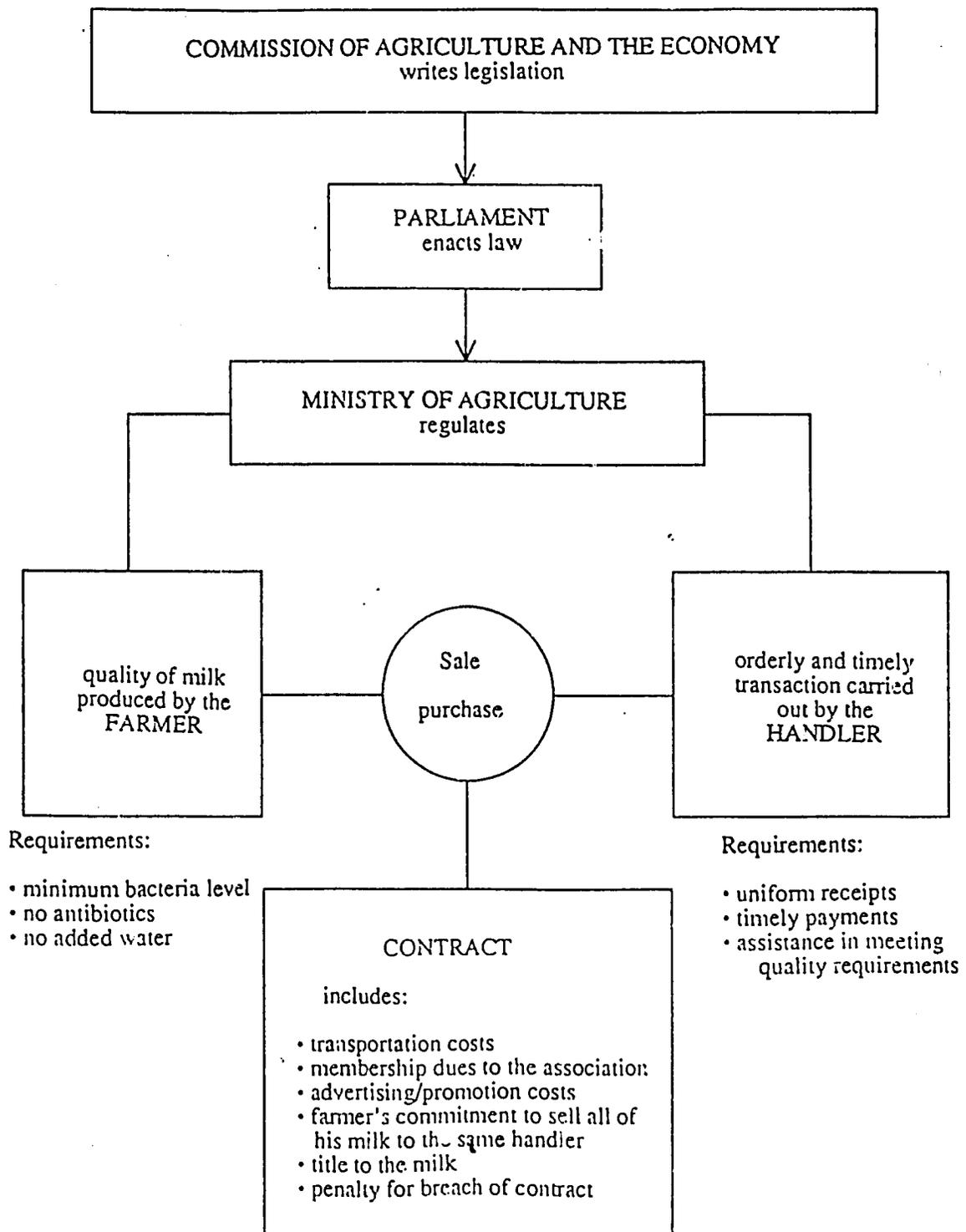
To ensure orderly milk transactions, laws require that the handler provide the farmer with the following:

1. A receipt indicating the quantity of milk in the farmer's tank (in liters or centners). Every time the milk truck driver collects milk from the farmer, he gives the farmer a receipt indicating the quantity of milk received.
2. The results of the milk quality tests. The test results are given to the farmer within seven days (or some other specified period) of the end of the month.
3. The results of butterfat and protein test (if pay is based on the level of fat and protein in the milk). Since fat and protein content can vary widely during a month, the milk is usually tested randomly three times during the month and the results are averaged. The results are provided to the farmer within 10 days of the end of the month.
4. A statement containing the following information is provided when final payment is made for the milk received each month:
  - a. the month in which the milk was received;
  - b. the name of the farmer and the farmer's identification number;
  - c. the name of the handler;
  - d. the total number of litres of centners of milk received;
  - e. the average fat and protein content of the milk during the month (if premiums are paid for fat or protein content);
  - f. the "base price" paid for the milk (that is, the price paid before any premiums are added for fat, protein, or quality);
  - g. the butterfat and protein differential;
  - h. the rate used by the handler to compute the premiums paid for fat, protein, or quality;
  - i. a list of any deductions taken from the pay (for example, membership dues to the association or the costs of transporting the milk);
  - j. if the deductions in (i) were made on the basis of weight or volume, a description of the rates used to determine the deduction; and
  - k. the total (net) amount of the payment.

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

The handler must make at least partial payment to the farmer for milk received from the farmer each month no later than the fifth day after the end of each month. Final payment must be made for the milk no later than the twentieth day after the end of each month.

### ENSURING QUALITY MILK IN AN ORDERLY MARKET



## 5. Estonian Food Act Relating to the Production and Processing of Milk and Milk Products

### SECTION I. DEFINITIONS

1. "Milk producer" or "producer" is a person, partnership, unincorporated association or corporation who owns or controls one or more cows and sells or offers for sale a part or all of the milk produced by the animals.
2. "Dairy farm" is any place or premise where one or more cows are kept and where a part or all of the milk from the animals is sold or offered for sale.
3. "Milk plant" is any place, premise, or establishment where milk or milk products are collected, assembled, handled, processed, stored, pasteurized, aseptically processed, packaged, or prepared for distribution.
4. "Transfer station" is any place, premise, or establishment where milk or milk products are transferred directly from one milk tank truck to another.
5. "Receiving station" is any place, premise, or establishment where raw milk is received, collected, handled, stored, or cooled and prepared for further transporting.
6. "Bulk milk pickup tanker" is a vehicle including the truck and tank used by a milk hauler to transport bulk raw milk from a dairy farm to a transfer station or milk plant.
7. "Milk transport tank" is a vehicle including the tank and truck used by a milk hauler to transport bulk shipments of milk from a transfer station or milk plant.
8. "Milk handler" or "handler" is a person, firm, unincorporated association or corporation engaged in the business of buying, selling, assembling, packaging, or processing milk or other dairy products, for sale within or without Estonia.
9. "Milk handler permit" is a permit issued by the Ministry of Agriculture which authorizes the handler to carry on the business of a milk handler.
10. "Milk" is the lacteal secretion, free from colostrum, obtained by the complete milking of one or more healthy cows to which nothing has been added or taken away.
11. "Adulteration." An adulterated dairy product is a dairy product containing noxious, unwholesome, or deleterious material, preservative, antibiotic drug or chemical in a quantity injurious to health.
12. "Pasteurized." Pasteurized means that every particle of such product shall have been heated in properly operated equipment to one of the temperatures specified in the table below and held continuously at or above that temperature for the specified time:

| TEMPERATURE | TIME        |
|-------------|-------------|
| 63'C        | 30 minutes  |
| 72'C        | 15 seconds  |
| 89'C        | 1.0 second  |
| 90'C        | 0.5 second  |
| 94'C        | 0.1 second  |
| 96'C        | 0.05 second |
| 100'C       | 0.01 second |

### 13. Product Definitions.

# A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

## SECTION II. LABELING

Unless otherwise approved by the Ministry of Agriculture, all retail packages of dairy products and fluid dairy products sold or offered for sale shall be plainly and conspicuously marked on the principal display panel with:

1. the name of the food product as defined by this law;
2. the quantity of contents;
3. the name and address of the handler; and
4. the name of ingredients in descending order of importance.

## SECTION III. QUALITY CONTROL STANDARDS FOR MILK AND MILK PRODUCTS

All raw milk and milk products shall be produced, processed, and/or pasteurized to conform with the following chemical, bacteriological, and temperature standards, and the animal health requirements of this section.

### RAW MILK:

|                    | MAXIMUM   |
|--------------------|---|
| Temperature        | 10°C (1/1/1993)<br>8°C (1/1/1994)<br>6°C (1/1/1995)   |
| Bacterial Limits   | 1,000,000 CFU/ML SPC (1/1/1993)<br>300,000 CFU/ML SPC (1/1/1995)<br>100,000 CFU/ML SPC (1/1/1997) |
| Cryoscope          | -0.510°C (1/1/1993)   |
| Antibiotics        | No detectable zone (1/1/1993)   |
| Somatic Cell Count | 1,000,000 CFU/ML SCC (1/1/1993)<br>500,000 CFU/ML SCC (1/1/1995)<br>400,000 CFU/ML SCC (1/1/1997) |

### PASTEURIZED MILK AND DAIRY PRODUCTS:

|                  | MAXIMUM                      |
|------------------|------------------------------|
| Temperature      | 5°C (1/1/1993)               |
| Bacterial Limits | 10,000 CFU/ML SPC (1/1/1993) |
| Coliform         | Not to exceed 10 CFU/ML      |
| Antibiotics      | No detectable zone           |

#### SECTION IV. PERMITS

Every milk producer, and every person who operates a transfer station, receiving station, bulk tank unit, or milk plant shall hold a valid general permit issued by the Ministry of Agriculture in compliance with this Section IV. Additionally, only a person who complies with Section IV shall be entitled to a permit. It shall be the responsibility of a general permit holder who controls the assembly of milk to employ or engage at least one certified milk inspector to assist or carry out the full implementation of the requirements of this Section IV applicable to dairy farms, including the acceptance and rejection of milk, the proper notification to producers, and the maintenance of all records required by the Ministry of Agriculture. Specifically the permit holder shall:

1. Employ a certified milk inspector.
2. Accept no milk from any dairy farm which has not been inspected in accordance with Section VI.
3. Exclude any dairy farm whenever the results of three of the last five milk samples fail to comply with quality standards set forth in Section III.
4. Maintain accurate records and make such records available to the Ministry of Agriculture. The records shall include:
  - a. Farm inspection reports. A record of all routine inspections and reinspections conducted shall be maintained. All reports shall contain the name and identification number of the producer, the date of the inspection, the signature of the certified inspector, and the status of the dairy farm following the inspection.
  - b. Current producer list. The producer list shall contain any identification numbers which are used.
  - c. Laboratory tests. A record of all laboratory tests made on the producer milk, commingled milk, and any other milk sampled during shipment or processing shall be maintained for a period of one year.
5. Accept milk from cow herds that are free of tuberculosis and brucellosis.

#### SECTION V. INSPECTIONS

Each dairy farm shall be inspected and approved before the permit required in Section IV is issued and thereafter at the minimum as described below:

1. Every six months;
2. Before the dairy farm is transferred to another producer;
3. Promptly when bacteria counts exceed the standards of Section III; and
4. Within a reasonable time after finding that the farm is not in compliance with the standards of Section VI.

Certified Milk Inspector. The Ministry of Agriculture shall not certify a person as a Certified Milk Inspector unless the Ministry is satisfied that this person has met the following conditions:

1. Has an educational background based upon a curriculum that is acceptable to the Ministry of Agriculture;
2. Has at least six months of experience in the dairy industry; and
3. Has attended a training course approved by the Ministry of Agriculture for dairy inspection.

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

A person shall be certified as a Certified Milk Inspector for a period not to exceed three years. The Ministry of Agriculture may renew a Certified Milk Inspector's certification, provided the person has performed his responsibilities in a manner satisfactory to the Ministry.

Duties. A Certified Milk Inspector shall be responsible for:

1. Conducting the farm inspections required by Section V;
2. Accurate and orderly recording of results of inspections;
3. Excluding a dairy farm which is not in compliance with Section III and/or Section VI;
4. Notification of farmers who are not in compliance with Section III and/or Section VI;
5. Keeping and submitting to the Ministry of Agriculture the records required; and
6. Attending an annual training course held by the Ministry of Agriculture.

Revocation or suspension of certification. The Ministry of Agriculture may suspend, revoke or refuse to renew an inspector certification after a hearing, if the Ministry finds that the Certified Milk Inspector has failed to carry out the duties described in Section V.

A Certified Milk Inspector is not an employee of the Ministry of Agriculture or the Republic of Estonia.

(See Attachment A: Dairy Farm Inspection Report.)

### SECTION VI. SANITATION REQUIREMENTS FOR THE PRODUCTION OF RAW MILK

1. **Milking Barn, Stable, or Parlor—Construction.** A milking barn, stable, or parlor shall be provided on all dairy farms in which the milking herd shall be housed during milking time operations. The areas used for milking purposes shall (1) have floors and gutters of tight construction; (2) have walls and ceilings in good repair; (3) have separate stalls for horses and calves; (4) be provided with natural or artificial light; (5) provide sufficient airspace and air circulation to prevent condensation and excessive odors; (6) not be overcrowded; (7) have tightly covered boxes or bins, or separate storage facilities for ground, chopped, or concentrated feed.
2. **Milking Barn, Stable, or Parlor—Cleanliness.** The interior shall be kept clean. Floors, walls, windows, pipelines, and equipment shall be free of filth and/or litter, and shall be clean. Swine and fowl shall be kept out of the milking barn, stable, or parlor.
3. **Cowyard.** The cowyard shall be graded and drained and shall have no standing pools of water or accumulations of organic wastes. In resting and cattle housing areas cow manure and soiled bedding shall be removed, or clean bedding added, at frequent intervals to prevent the soiling of the cow's udder and flanks. Waste feed shall not be allowed to accumulate. Swine shall be kept out of the cowyard.
4. **Milkhouse or Room—Construction and Facilities.** A milkhouse or room shall be provided in which the cooling, handling, storing, of milk and the washing, sanitizing and storing of milk containers and utensils shall be conducted. It shall have: (1) a smooth floor graded to drain and maintained in good repair; liquid waste shall be disposed of in a sanitary manner; (2) walls and ceilings in good repair; (3) adequate natural or artificial light and be well ventilated; (4) hot and cold water; (5) be equipped with a wash vat and adequate hot water.

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

5. **Milkhouse or Room—Cleanliness.** The floors, walls, ceilings, windows, tables, shelves, cabinets, wash vats, non-product contact surfaces of milk containers, utensils, and equipment, and other milkroom equipment shall be clean. The milkroom shall be free of trash, animals, and fowl.
6. **Water Supply.** Water for milkhouse and milking operations shall be from a supply properly located and protected, shall be easily accessible and shall be adequate and show no evidence of contamination.
7. **Utensils and Equipment—Construction.** All multi-use containers, equipment, and utensils used in the handling, storage, or transportation of milk shall be made of smooth, non-absorbent, corrosion-resistant, non-toxic materials, and shall be constructed as to be easily cleaned. All containers, utensils, and equipment shall be in good repair.
8. **Utensils and Equipment—Cleaning.** The product-contact surfaces of all multi-use containers, equipment, and utensils used in the handling, storage, or transportation of milk shall be cleaned after each use.
9. **Utensils and Equipment—Sanitation.** The product-contact surfaces of all multi-use containers, equipment, and utensils used in the handling storage, or transportation of milk shall be sanitized before each use.
10. **Utensils and Equipment—Storage.** All containers, utensils, and equipment used in the handling, storage, or transportation of milk shall be stored to assure complete drainage, and shall be protected from contamination.
11. **Milking.** Milking shall be done in the milking barn, stable, or parlor. The flanks, udders, bellies, and tails of all milking cows shall be free from visible dirt. The udders and teats of all milking cows shall be cleaned just prior to milking, and shall be dry before milking.
12. **Milking—Transfer and Protection of Milk.** Each pail or container of milk shall be transferred immediately from the milking barn, stable, or parlor to the milkhouse. No milk shall be strained, poured, transferred, or stored unless it is properly protected from contamination.
13. **Personnel—Handwashing Facilities.** There shall be adequate handwashing facilities provided, including a wash sink with running water, soap, and hand drying towels.
14. **Personnel—Cleanliness.** Hands shall be washed clean and dried immediately before milking. Milkers and milk haulers shall wear clean clothing while milking or handling milk, milk containers, or equipment.
15. **Milk Bulk Tanks and Storage.** Raw milk shall be cooled and stored in farm bulk tank coolers or approved milk cans. Raw milk shall be cooled to 10°C or less within one hour after the first milking. On the second and subsequent milkings the blend temperature of milk in the tank shall not rise above 10°C. Farm bulk tanks and approved milk cans shall be emptied at least once every 48 hours except when road conditions or other conditions will not permit pickup of milk.
16. **Insect and Rodent Control.** Effective measures shall be taken to prevent the contamination of milk, containers, equipment, and utensils by insects and rodents, and by chemicals used to control such pests. Surroundings shall be kept neat, clean, and free of conditions which might harbor or be conducive to the breeding of insects and rodents.

SECTION VII. SANITATION REQUIREMENTS FOR MILK PLANTS

1. Floors—Construction. The floors of all rooms in which milk and milk products are processed, handled, or stored, or in which milk containers, equipment, and utensils are washed, shall be constructed of a smooth, impervious, easily cleaned material. Floors will be provided with drains and kept in good repair.
2. Walls and Ceilings—Construction. Walls and ceilings of rooms in which milk or milk products are handled, processed, or stored, or in which milk containers, utensils, and equipment are washed, shall have a smooth, washable surface in good repair.
3. Doors and Windows. Doors and windows shall be clean and fit tight to prevent access of flies and rodents.
4. Lighting and Ventilation. All rooms in which milk and milk products are handled, processed, or stored, and/or in which milk containers, equipment, and utensils are washed shall be well lighted and well ventilated.
5. Rooms. There shall be rooms for (1) pasteurizing, processing, cooling, and packaging; and (2) cleaning of milk cans and bottles.
6. Water Supply. Water for milk plants shall be from a properly located, protected, and operated water supply and shall be easily accessible, adequate, and show no sign of contamination.
7. Handwashing Facilities. Convenient handwashing facilities shall be provided, including hot and cold running water, soap, and towels for drying hands.
8. Milk Plant Cleanliness. All rooms in which milk and milk products are handled, processed, or stored, and/or in which containers, utensils, or equipment are washed or stored shall be kept clean, neat, and free of insects and rodents.
9. Sanitary Piping. All sanitary piping, fittings, and connections which are exposed to milk and milk products shall consist of smooth, impervious, corrosion-resistant, non-toxic, easily cleaned material.
10. Construction and Repair of Containers and Equipment. All containers and equipment with which milk or milk products come into contact shall be of smooth, impervious, corrosion-resistant, non-toxic material; shall be constructed for ease of cleaning; and shall be kept in good repair.
11. Cleaning and Sanitizing of Containers and Equipment. The product contact surfaces of all containers, utensils, and equipment used in the transportation, processing, handling, and storage of milk and milk products shall be effectively cleaned and shall be sanitized before each use.
12. Storage of Materials. Plastics, paper, containers, gaskets, and other articles used in contact with milk and milk products shall be stored in sanitary wrapping, cartons, or be suitably protected; and shall be kept in a clean, dry place until used.
13. Protection From Contamination. Milk plant operations, equipment, and facilities shall be located and conducted to prevent any contamination of milk or milk products, ingredients,

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

containers, equipment, and utensils. The storage, handling, and use of poisonous or toxic materials shall be performed to avoid contamination of milk and milk products or ingredients, containers, equipment, and utensils.

14. **Cooling Of Milk.** All raw milk and milk products shall be maintained at 10°C or less until processed.
15. **Bottling and Packaging.** All bottling and packaging of milk and milk products shall be done in a sanitary manner by approved equipment.
16. **Personnel—Cleanliness.** Hands shall be thoroughly washed before performing milk plant duties. All persons shall wear clean clothing and wear adequate hair coverings.

### SECTION VIII. IMITATION DAIRY PRODUCTS

"Imitation dairy products" are those products containing no milk, which by their texture, flavor, color, packaging, or other characteristics, could be confused by consumers with established and defined dairy products, or are sold or offered for sale as substitutes for milk or milk products.

All ingredients and the source of all ingredients used in the manufacture and production of imitation dairy products shall be approved by the Ministry of Agriculture.

### SECTION IX. IMPORTED DAIRY PRODUCTS

All imported dairy products, milk, and milk products will comply with Estonian labeling requirements as described in Section II and Estonian dairy quality standards described in Section III.

In addition, all imported dairy products, milk, and milk products must be accompanied by a quality certificate; no exceptions will be made for imported dairy products, milk, and milk products that by product definition are being produced in Estonia.

### SECTION X. PERSONNEL HEALTH

No person affected with any disease in a communicable form, or while a carrier of such a disease, shall work or be employed at any dairy farm or milk plant in any capacity which brings him/her into contact with the production, handling, storage, or transportation of milk, milk products, containers, equipment, and utensils; and no dairy farm or milk plant operator shall employ any such person, or any person suspected of having any disease in a communicable form, or of being a carrier of such disease. Any producer or distributor of milk or milk products, upon whose dairy farm, or in whose milk plant any communicable disease occurs, or who suspects that any employee has contracted any disease in a communicable form, or has become a carrier of such disease, shall notify the Ministry of Agriculture.

### SECTION XI. THE EXAMINATION OF MILK

It shall be the responsibility of the milk hauler to collect a representative sample of milk from each farm bulk tank or approved milk can, or receiving/collection point prior to transferring milk from a farm bulk tank, truck, or other container. All samples shall be collected and delivered to a milk plant, receiving station, or other location approved by the Ministry of Agriculture.

During any consecutive six months, at least four samples of raw milk for pasteurization shall be

taken from each milk plant prior to pasteurization, and during any consecutive six months, at least four samples of pasteurized milk shall be taken from each milk plant.

The milk handler shall arrange to have at least one sample per month from each dairy farm analyzed in its laboratory or another laboratory approved by the Ministry of Agriculture. The milk shall be analyzed for compliance with the chemical, bacteriological, and temperature standards described in Section III. A sanitary inspection by the certified milk inspector shall be made promptly whenever a sample exceeds bacterial standards. Whenever two out of the last four bacterial counts exceeds the standards, written notice will be given to the producer indicating that an additional high count will result in exclusion of the milk from the market.

The notice will be in effect as long as two of the last four samples exceed the limit of the standard. Reinstatement shall be made after the problems have been found by the inspector to have been corrected.

The milk handler shall arrange for samples of commingled milk to be analyzed monthly. The samples shall be analyzed for compliance with the chemical, bacteriological, and temperature standards described in Section III.

The following procedures shall be followed when raw milk samples are found to contain antibiotic contamination:

1. Test all milk from individual producers which was part of the commingled milk;
2. Investigate each dairy farm from which milk containing an antibiotic was received and take corrective action;
3. Take an additional sample and test it, and receive no more milk from the dairy farm until the results meet the standards;
4. If the additional sample from the dairy farm contains antibiotics, no more milk produced by the farm for the following two days shall be received by the milk handler and no more milk shall be received by the milk handler until the milk has been found free of antibiotic residue;
5. The milk plant has the right to impose additional penalties on milk producers who are found not to be in compliance with antibiotic residue standards.

## SECTION XII. LABORATORY TECHNIQUES

Procedures for the collection and holding of samples; the selection and preparation of apparatus, media, and reagents; and the analytical procedures, incubation, reading, and reporting of results shall be uniform at all laboratories in Estonia and approved by the Ministry of Agriculture, and meeting standards necessary for international certification.

The procedures include:

1. Standard Plant Count (SPC) at 32°C;
2. Lab. Pasteurized Count at 32°C;
3. Coliform test with solid media at 32°C;

4. B. Stearothermophilus for antibiotics;
5. Direct Microscopic Somatic Cell Counting or Optical Somatic Cell Counting for somatic cell counts;
6. Any other tests which have been approved by the Ministry of Agriculture or required for international certification.

### SECTION XIII. MILK RECEIPT AND TRANSACTION

Section XIII sets forth requirements to assure orderly transactions in the milk market between milk producers and milk processors.

#### Subsection A. Payment to producers.

1. On or before the fifth day after the end of the month, each processor/handler of milk shall pay each producer for milk received from the producer during the first 15 days of the month at a rate that is not less than the base price for the preceding month. The payment is described as an advance payment.
2. On or before the twentieth day after the end of the month, each processor/handler shall make final payment to each producer for the total value of milk received from the producer during the month, thereby providing the producer with full payment of all milk produced during the preceding month. This payment is described as the final payment.
3. If the processor's/handler's net payment to a producer is for an amount less than the total amount due the producer under the above provisions, the burden shall rest upon the processor/handler to prove to the Ministry of Agriculture that the payment to the producer is fair and equitable.

#### Subsection B. Statements to producers.

In making the payments to producers required under Section XIII, Subsection A, each processor/handler shall furnish each producer with a written supporting statement. The statement is described as the milk receipt and shall accompany the final payment for milk. The milk receipt shall show:

1. The month in which the milk was received;
2. The name of the producer and the producer's identification number;
3. The name of the processor/handler;
4. The total number of litres of milk received;
5. The average butterfat and protein content of the milk during the month;
6. The base price paid for the milk;
7. The butterfat and protein unit or differential price;
8. The rate used by the processor/handler to compute prices paid for butterfat, protein, and qual-

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

ity;

9. A complete list of any deductions taken from the pay;
10. If deductions in number 9 were made on the basis of weight or volume, a description of the rates used to determine the deduction; and
11. The total and net amount of the payment to the producer.

(See Attachment B: Monthly Milk Receipt)

### Subsection C. Additional Statements.

The processor/handler has responsibility to provide the producer with additional statements regarding milk received by the processor/handler from the producer. Those receipts and the time they are issued are:

1. A receipt indicating the quantity of milk in the producer's tank in litres is provided to the producer prior to transferring the milk from the producer's bulk tank or approved milk can to the processor's/handler's milk truck or receiving station.
2. A statement providing the results of the milk quality test must be presented to the producer within seven days of the end of each month.
3. A statement providing the results of the butterfat and protein tests must be presented to the producer within ten days of the end of the month.

**ATTACHMENT A**  
**DAIRY FARM INSPECTION REPORT**

Post in Milkroom

Permit No. \_\_\_\_\_ Litres Sold Daily \_\_\_\_\_ Plant \_\_\_\_\_

Name \_\_\_\_\_ Location \_\_\_\_\_

Signature of Producer \_\_\_\_\_ Address \_\_\_\_\_

---

An inspection of your dairy farm has been made, and you are notified of the violations marked below with a cross (X).

**COWS**

**1. Abnormal Milk (10)**

- Cows secreting abnormal milk milked last or in separate equipment (a) \_\_\_\_\_
- Abnormal milk properly handled and disposed of (b) \_\_\_\_\_
- Proper care of abnormal milk handling equipment (c) \_\_\_\_\_
- Somatic Cell Counts (5) (d) \_\_\_\_\_

**MILKING BARN, STABLE OR PARLOR**

**2. Construction:**

- Floors, gutters, and feed troughs of concrete or equally impervious materials; in good repair (2) (a) \_\_\_\_\_
- Walls and ceilings smooth, painted or finished adequately; in good repair; ceiling dust-tight (1) (b) \_\_\_\_\_
- Separate stalls or pens for horses, calves, and bulls (1) (c) \_\_\_\_\_
- Adequate natural and/or artificial light; well distributed (1) (d) \_\_\_\_\_
- Proper feed storage facilities (1) (e) \_\_\_\_\_
- Properly ventilated; no overcrowding (2) (f) \_\_\_\_\_

**3. Cleanliness: (2)**

- Clean and free of litter (a) \_\_\_\_\_
- No swine or fowl (b) \_\_\_\_\_

**4. Cowyard: (2)**

- Graded to drain; no pooled water or wastes (a) \_\_\_\_\_
- Cowyard clean; cattle housing areas properly maintained (b) \_\_\_\_\_
- No swine (c) \_\_\_\_\_
- Manure stored inaccessible to cows (d) \_\_\_\_\_

**MILKHOUSE OR ROOM**

**5. Construction and Facilities:**

**1. Floors (1)**

- Smooth; concrete or other impervious material; in good repair (a) \_\_\_\_\_
- Graded to drain (b) \_\_\_\_\_
- Drains trapped, if connected to sanitary system (c) \_\_\_\_\_

**2. Walls and Ceilings (1)**

- Approved material and finish (a) \_\_\_\_\_
- Good repair (windows, doors, and hoseport included) (b) \_\_\_\_\_

**3. Lighting and ventilation (2)**

- Adequate natural and/or artificial light; properly distributed (a) \_\_\_\_\_
- Adequate ventilation (b) \_\_\_\_\_

Doors and windows closed during dusty weather (c) \_\_\_\_  
 Vents and lighting fixtures properly installed (d) \_\_\_\_

**4. Miscellaneous Requirements (2)**

Used for milkhouse operations only; sufficient size (a) \_\_\_\_  
 No direct opening into living quarters or barn, except as permitted (b) \_\_\_\_  
 Liquid wastes properly disposed of (c) \_\_\_\_  
 Proper hoseport where required (d) \_\_\_\_  
 Acceptable surface under hoseport (e) \_\_\_\_  
 Suitable shelter for transport truck as required (f) \_\_\_\_

**5. Cleaning Facilities (2)**

Two-compartment wash and rinse vat of adequate size (a) \_\_\_\_  
 Suitable water heating facilities (b) \_\_\_\_  
 Water under pressure piped to milkhouse (c) \_\_\_\_

**6. Cleanliness: (3)**

Floors, walls, windows, tables, and similar non-product contact surfaces clean (a) \_\_\_\_  
 No trash, unnecessary articles, animals or fowl (b) \_\_\_\_

**TOILET AND WATER SUPPLY**

**7. Toilet: (5)**

Provided; conveniently located (a) \_\_\_\_  
 Constructed and operated according to standard (b) \_\_\_\_  
 No evidence of human wastes about premises (c) \_\_\_\_  
 Toilet room in compliance with standard (d) \_\_\_\_

**8. Water Supply: (5)**

Constructed and operated according to standard (a) \_\_\_\_  
 Complies with bacteriological standards (b) \_\_\_\_  
 No connection between safe and unsafe supplies; no improper submerged inlets (c) \_\_\_\_

**UTENSILS AND EQUIPMENT**

**9. Construction: (3)**

Smooth, impervious, nonabsorbent, safe materials; easily cleanable; seamless hooded pails (a) \_\_\_\_  
 In good repair; accessible for inspection (b) \_\_\_\_  
 Approved single-service articles; not reused (c) \_\_\_\_

**10. Cleaning: (5)**

Utensils and equipment clean (a) \_\_\_\_

**11. Sanitization: (5)**

All multi-use containers and equipment subjected to approved sanitization process (a) \_\_\_\_

**12. Storage: (2)**

All multi-use containers and equipment properly stored (a) \_\_\_\_  
 Stored to assure complete drainage where applicable (b) \_\_\_\_  
 Single-service articles properly stored (c) \_\_\_\_

**13. Handling: (2)**

Sanitized milk contact surfaces not exposed to contamination (a) \_\_\_\_

**MILKING**

**14. Flanks, Udders, and Teats: (3)**

Milking done in barn, stable, or parlor (a) \_\_\_\_  
 Brushing completed before milking begun (b) \_\_\_\_  
 Flanks, bellies, udders, and tails of cows clean at time of milking; clipped when required (c) \_\_\_\_  
 Teats treated with sanitizing solution and dried, just prior to milking (d) \_\_\_\_  
 No wet hand milking (e) \_\_\_\_

**15. Surcingles, Milk Stools and Anti-Kickers: (1)**

Clean; stored above floor in clean place (a) \_\_\_\_

A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

Stools, easily cleanable construction and not padded (b) \_\_\_\_\_

**TRANSFER AND PROTECTION OF MILK**

**16. Protection From Contamination: (2)**

- No overcrowding (a) \_\_\_\_\_
- Product and CIP circuits separated (b) \_\_\_\_\_
- Improperly handled milk discarded (c) \_\_\_\_\_
- Immediate removal of milk (d) \_\_\_\_\_
- Milk and equipment properly protected (e) \_\_\_\_\_
- Air under pressure of proper quality (f) \_\_\_\_\_
- Cleaners and sanitizers properly identified (g) \_\_\_\_\_
- Drug administration equipment properly handled and stored (h) \_\_\_\_\_
- Antibiotics and medicinals properly used and stored (i) \_\_\_\_\_

**PERSONNEL**

**17. Hand-Washing Facilities: (3)**

- Proper hand-washing facilities convenient to milking operations (a) \_\_\_\_\_
- Wash and rinse vats not used as hand-washing facilities (b) \_\_\_\_\_

**18. Personnel Cleanliness: (2)**

- Hands washed clean and dried before milking, or performing milk house function; rewashed when contaminated (a) \_\_\_\_\_
- Clean outer garments worn (b) \_\_\_\_\_

**COOLING**

**19. Cooling: (5)**

- Milk cooled to 40' F. or less within 2 hours after milking (a) \_\_\_\_\_
- Recirculated cooling water from safe source and properly protected; complies with bacteriological standards (b) \_\_\_\_\_

**VEHICLES**

**20. Vehicles: (1)**

- Vehicles clean (a) \_\_\_\_\_
- Constructed so as to protect milk (b) \_\_\_\_\_
- No contaminating substances transported (c) \_\_\_\_\_

**INSECTS AND RODENTS**

**21. Insect and Rodent Control:**

- Fly breeding minimized by approved manure disposal methods (3) (a) \_\_\_\_\_
- Manure packs properly maintained (b) \_\_\_\_\_
- All milkhouse openings effectively screened or otherwise protected; doors tight and self-closing; screen doors open outward (2) (c) \_\_\_\_\_
- Milkhouse free of insects and rodents (d) \_\_\_\_\_
- Approved pesticides, used properly (e) \_\_\_\_\_
- Equipment and utensils not exposed to pesticide contamination (2) (f) \_\_\_\_\_
- Surroundings neat and clean; free of harborage and breeding areas (1) (g) \_\_\_\_\_

**Bacterial Count: (10)**

**REMARKS:**

Date \_\_\_\_\_ Sanitarian \_\_\_\_\_

Approved Yes \_\_\_\_ No \_\_\_\_ Reinstect \_\_\_\_ Exclude \_\_\_\_

**ATTACHMENT B**  
**MONTHLY MILK RECEIPT**

**Milk Receipt and Transaction Policy**

**INTRODUCTION**

In order to assure orderly transactions in the milk market between milk producers and milk processors an accurate accounting in the form of a detailed written receipt must be presented to the producer from the processor on a regular and scheduled basis. This receipt provides the basis of the accounting of the transaction and assures that producers are informed of volumes sold and prices paid by the processor. The use of a uniform receipt further demonstrates that all producers are treated fairly and that processors act in uniformity with the transaction.

The material presented is designed to be a framework within which the Estonian dairy industry and the Ministry of Agriculture can develop legislation to assure orderly transactions in the milk market. It is recognized and appreciated that the Estonian privatized dairy market is in developmental stages, and a reasonable implementation schedule for the milk receipt and transaction policy should be set forth by the Ministry of Agriculture.

**REGULATION I. PAYMENTS TO PRODUCERS**

1. On or before the fifth day after the end of the month, each processor/handler of milk shall pay each producer for milk received from the producer during the first 15 days of the month at a rate that is not less than the base price for the preceding month. This payment is described as an advance payment.
2. On or before the twentieth day after the end of the month, each processor/handler shall make final payment to each producer for the total value of milk received from the producer during the month, thereby providing the producer with full payment of all milk produced during the preceding month. This payment is described as the final payment.
3. If the processor's/handler's net payment to a producer is for an amount less than the total amount due the producer under the above provisions, the burden shall rest upon the processor/handler to prove to the Ministry of Agriculture that the payment to the producer is fair and equitable.

**REGULATION II. STATEMENTS TO PRODUCERS**

In making the payments to producers required under Regulation I each processor/handler shall furnish each producer with a written supporting statement. This statement is described as the milk receipt and shall accompany the final payment for milk. The milk receipt shall show:

1. The month in which the milk was received;
2. The name of the producer and the producer's identification number;
3. The name of the processor/handler;

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

4. The total number of litres of milk received;
5. The average fat and protein content of the milk during the month;
6. The base price paid for the milk;
7. The butterfat and protein unit or differential price;
8. The rate used by the processor/handler to compute prices paid for butterfat, protein, and quality;
9. A complete list of any deduction taken from the pay;
10. If the deductions in (I.) were made on the basis of weight or volume, a description of the rates used to determine the deduction; and
11. The total and net amount of the payment to the producer.

### REGULATION III. ADDITIONAL STATEMENTS

The processor/handler has responsibility to provide the producer with additional statements regarding milk received by the processor/handler from the producer. Those receipts and the time they are issued are:

1. A receipt indicating the quantity of milk in the producer's tank in litres is provided to the producer prior to transferring the milk from the producer's bulk tank to the processor's/handler's milk truck.
2. A statement providing the results of the milk quality test must be presented to the producer within seven days of the end of each month.
3. A statement providing the results of the butterfat and protein tests must be presented to the producer within ten days of the end of the month.

ENGLISH TEXT

# MONTHLY MILK RECEIPT

MEMBERSHIP NUMBER:

PLANT NUMBER:

PAYMENT TYPE:

| LITRES BY PERIOD | TANK | TANK | TANK | TANK | TOTAL LITRES | PRICE |
|------------------|------|------|------|------|--------------|-------|
| 1-15             |      |      |      |      |              |       |
| 16-31            |      |      |      |      |              |       |
| TOTAL            |      |      |      |      |              |       |

|          |
|----------|
| EARNINGS |
|          |
|          |
|          |

BLEND AMOUNT->

|              |  |  |  |  |
|--------------|--|--|--|--|
| BUTTERFAT %  |  |  |  |  |
| B.F. AMOUNT  |  |  |  |  |
| PROTEIN %    |  |  |  |  |
| PROTEIN AMT. |  |  |  |  |
| QUALITY I    |  |  |  |  |
| QUALITY II   |  |  |  |  |

|                        |        |  |
|------------------------|--------|--|
| BUTTERFAT PRICE        |        |  |
| TOTAL BUTTERFAT AMOUNT | -----> |  |
| PROTEIN PRICE          |        |  |
| TOTAL PROTEIN AMOUNT   | -----> |  |
| QUALITY I              |        |  |
| QUALITY II             |        |  |

| DEDUCTIONS AND ADJUSTMENTS | AMOUNT | DEDUCTIONS AND ADJUSTMENTS | AMOUNT |
|----------------------------|--------|----------------------------|--------|
| ADVANCE PAYMENT            |        |                            |        |
| EQUITY DEDUCT              |        |                            |        |
| DUES VOLUME .06/LITRE      |        |                            |        |
| DUES MONTHLY               |        |                            |        |
| PROMOTION .15/CWT          |        |                            |        |
| HAUL 0.279/CWT             |        |                            |        |
| STOP CHARGE                |        |                            |        |

FINAL PAYMENT FOR MONTH

GROSS EARNINGS

NET EARNINGS

YEAR TO DATE MILK - KROONS

YEAR TO DATE GROSS PRODUCT

YOUR PAY PRICE PER LITRE - KRN

21

ESTONIAN TEXT .

# MONTHLY MILK RECEIPT

LIIKE NUMBER:

TEHASE NUMBER:

TASUMISE VIIS:

| LIITRI PERIOOD | TSISTERN | TSISTERN | TSISTERN | TSISTERN | KOKKU LIITRI | HIND |
|----------------|----------|----------|----------|----------|--------------|------|
| 1-15           |          |          |          |          |              |      |
| 16-31          |          |          |          |          |              |      |
| TOTAL          |          |          |          |          |              |      |

TEENITUD RAHA

KOGUS----->

|               |  |  |  |  |
|---------------|--|--|--|--|
| RASVA %       |  |  |  |  |
| RASVASISALDUS |  |  |  |  |
| PROTEIIN %    |  |  |  |  |
| PROTEIIN      |  |  |  |  |
| KVALITEET I   |  |  |  |  |
| KVALITEET II  |  |  |  |  |

|                     |        |  |
|---------------------|--------|--|
| RASVASISALDUSE HIND |        |  |
| KOGU RASVASISALDUS  | -----> |  |
| PROTEIIN HIND       |        |  |
| KOGU PROTEIIN       | -----> |  |
| KVALITEET I         |        |  |
| KVALITEET II        |        |  |

| MAHA-JA JUURDEARVAMISED      | KOGUS | MAHA-JA JUURDEARVAMISED | KOGUS |
|------------------------------|-------|-------------------------|-------|
| ETTEMAKS                     |       |                         |       |
| OSAMAKS                      |       |                         |       |
| MAKS KOGUSE PEALT .06/LIITRE |       |                         |       |
| KUU I IKMEMAKS               |       |                         |       |
| REKLAAM .15/LIITRE           |       |                         |       |
| VEDU 0.279/LIITRE            |       |                         |       |
| PIIMA KOGUMINE               |       |                         |       |

LOPLIK MSKDMINE KUU EEST

TEENISTUS KOGU

PUHASTULU

SELLEAASTANE SISSETULEK - KROON

SELLEAASTANE PIIMATOODANG

HIND LIITRI KOHTA - KROON

- 22 -

APPENDIX I.

ESTONIAN FOOD ACT: DISTRIBUTED BY THE ESTONIAN GOVERNMENT

ESTONIAN FOOD ACT.

I CHAPTER

TOTAL REGULATIONS.

Estonian Food Act consists of the present frameact and the lawacts, which result from it.

§ 1 THE AIM OF FOOD ACT.

Estonian Food act's aim is to stand security for food quality and consumer's defence.

Food act consits  
in following:

- the aim of Food Act
- the subject of Food Act
- Estonian Food Administration
- The handling of food products
- Labelling
- Food premises, hygiene
- Offering for sale
- The export and import of food products
- Supervision
- The prescriptions of Food Office
- Exception cases

§ 2 ACT'C SUBJECT

The present act dilates to all physical and juridical persons (further enterprises), who engage in processing, preparation, handling, packaging, storage or selling food products, independent of propertyform and the state of owner, likewise to the organs of state power, rule and selfgovernment.

- (4) In this act foreign substance means any substance which if it is present in food, can constitute a risk to health or alter the quality of food.
- (5) In this act prepackaged food means food, which is intended to be opened first by the consumer.
- (6) In this act the term "handling" of food means preparation, production, treatment, storage, packing, transport of food and also offering for sale. The rights of handler and his safety established in separate act.
- (7) In this act consumer means any person, to whom are selling foodstuffs for personal consumption. With consumer equalized enterprises and organizations, who use foodstuffs.

#### § 5 FOOD COMPOSITION

- (1) Foodstuffs must be of such a composition and quality, that answer to established normdocument's demands or to producer's demands, whis may not be lower than normdocument's demands.
- (2) The Food Administration shall issue the list of food additives and regulations on the use of these.
- (3) In the composition of foodstuffs may not be foreign substances over permitted limit amounts.
- (4) Foodstuffs may not be of such a composition, that they can be carriers of infection.  
The Ministry of Health shall issue limit amounts to foreign substances and to microorganisms, which affect foodstuffs quality.

#### § 6 HANDLING

- (1) Food packaging materials or machinery, utensils, vessels or other equipment for food handling may not be of such a nature that foreing substances are added to food that food becomes contaminated.

### § 3 ESTONIAN FOOD ADMINISTRATION

- (1) Estonian Food Administration is the state organization, who's administration belonging determine the government.
- (2) Arranges together with the government offices the elaboration of standard documents complex and regulations, which are based on one act, they are the base of preparation, processing, storage, marketing-selling and quality controlling food products.
- (3) Gives out food products export and import permits.
- (4) Composes food products register, where are marked these food products, which are allowed to sell in Estonia.
- (5) Controles the fulfilling of Food Act on own's initiative and also on the strength of the application of physical and juridical persons.
- (6) Executes and co-ordinates food products harnessing and science researches.

## II CHAPTER

### § 4 CONCEPTIONS AND DEFINATIONS

- (1) In this Act food means any foodstuff that is intended for human consumption in natural or treated form. With foodstuffs equalized their cases, which are imaginable for eating with soft part.
- (2) In this Act quality is the product's qualities complex, which characterized foodstuff quality to satisfy human consumption needs for feed, organolep+ical qualities, stability on preserveing and safety for health.
- (3) In this act food additive means any substance that is intended to be added to food in order to affect its taste, odour, colour, consistency or nutritive valvue or to give the food any other specific property, it is not itself a food row material.

25

- (2) Food may not be handled together with such substances, which may change its quality.
- (3) Only water that is fit for use as drinking water may be used in foodstuffs production, cooling, cleaning arrangements, spaces and stocks, unless the other regulation permits otherwise. The same provision is applicable in the case of cooling ice.
- (4) During the storage, transportation and selling, foodstuffs must keep in such conditions, which guarantee their quality.
- (5) The handling of some foodstuffs established with other regulation.
- (6) Food may not be treated with ionising radiation, unless the other regulation permits otherwise.

#### § 7 LABELLING

- (1) In this act labelling means the supplying of packing with the information, which acquaints the foodstuff and which is directed to the consumer.  
Labelling's content and order is established with other regulation.
- (2) Labelling must be in Estonian language, clearly readable and understandable to consumer. Complementary information, which is valid to every concrete foodstuff, is established with other regulation.
- (3) In the case of food that is packaged in Estonia, responsibility for labelling rests with the packer. In the case of other foods, the responsibility rests with whoever first offers the food for sale in Estonia.
- (4) In labelling it is prohibited to use advertising expressions, which give to foodstuffs qualities without scientific motivating.

§ 8 SPACES, ARRANGEMENTS, HYGIENE

- (1) The spaces of food handling enterprises, warehouses and selling places must answer to valid normdocument demands. Raw material and finished products must not be in contact.
- (2) Spaces must watch over according to concrete object's documentation and the demands of health protection.
- (3) The buildings, rooms, equipment and all other physical facilities of establishment must be done<sup>o</sup> such materials, which can easily clean and disinfect and they must be allowed to use by Health Ministry.
- (4) Technological equipment must be placed so, that it is easy to control all the technological process and to take samples for laboratory control.
- (5) All persons engaged oin food handling shall maintain a good standard of personal hygiene and also observe strict cleanliness in other respects. The Health Ministry issues regulations to medical examinations.
- (6) Person who comes into contact with food products in the course of his/her work must periodically pass through medical control and he/she must own a medical certificate. This order and frequency issues The Health Ministry
- (7) Persons who have, or can be assumed to have a disease or infectionwound or other injury that can render food that they handle unfit for human consumption may not be engaged in food handling.
- (8) Persons who engaged in food handling must wear protective clothing.

§ 9 OFFERING FOR SALE

- (1) It is offered to sell foodstuffs:
  - which correspond to the demands of Estonian Republic Food Act.
  - which are registered in Food Administration.

21

- (2) Foodstuffs may not be offered for sale:
- if they are unfit for human consumption, nonqualities, contaminated, have lost their commercial looks and have exceeded their realizing time.
  - if they are not registered in Food Administration.
  - if they contain food additives, which do not belong to the list assured by Food Administration.
  - if they contain foreign substances, food additives and microorganisms over permitted limit norms.
  - if their labeling does not answer to the content of the packing
  - if their content does not answer to their labeling
- Selling foodstuffs without label, at selling place must be some information about this foodstuff.

### III CHAPTER

#### § 10 EXPORT AND IMPORT

- (1) It is prohibited to import such kind of foodstuffs, which do not correspond to Estonian Food Act and which have no-quality certificate.
- It is permitted to do exceptions in clause 1, which is established with separate regulation.
- (2) When the importing of some foodstuff is prohibited by Food Act, then customs office must guarantee the fulfilling of this regulation and decide the fate of this commodity, observing the regulations to commodities without permit. Exporter is responsible for exporting prohibited foodstuffs.
- (3) Export foodstuffs must correspond to the demands of receiver state.
- The Food Administration gives information about the demands of receiver State.

## IV CHAPTER

### § 11 SUPERVISION

- (1) A supervisory authority carries out the central supervision of the observance of the Food Act by the help of competent specialists;
  - on the state level
  - on the local level
- (2) The Estonian government decrees supervisory institution establishments and control laboratories on the state level. The County Administration after co-ordinating with the Food Administration decrees supervisory institution establishments and control laboratories on the local level. The Food Administration co-ordinates the work of the supervisory institution establishments and control laboratories on the both level.
- (3) State supervisory institution establishments have the right to control all premises, technology and inventory of the juridical and physical persons mentioned in § 2 and may there carry out investigations and take samples. The local supervisory institution establishment has the same rights with the regard to juridical and physical persons at its region.
- (4) The physical and juridical persons are obliged:
  - to guarantee a free access to every part of food handling.
  - to present all documents that are needed for supervisory purposes.
- (5) In case of need police must give help to carry through the supervisory.
- (6) A supervisory authority must help the professional secret of the controlled person.
- (7) The assignments and engagements of supervisory are specified with other decree.
- (8) The Estonian government shall declare the main regulations of control laboratory.

§ 12 THE PRESCRIPTIONS OF FOOD ADMINISTRATION.

- (1) If the Food Administration has ascertained the breaking of this act. The Food Administration makes a obligatory prescription to the breaker of the act:
- to end the activity against the act. and re-establish previous situation.
  - to destroy or send to complementary treatment non edible foodstuffs.
  - to compensate this detriment to sufferer.
  - to pay the sum of money, which have got during the breaking of the act.

§ 13 RESPONSIBILITY NONFULFILLING THE  
PRESCRIPTIONS OF THE FOOD  
ADMINISTRATION.

- (1) Non-fulfilling or incompletely fulfilling the prescriptions of this act § 12, The Food Administration have right:
- to appoint appeals to juridical and physical persons on a scale of 300 wages.
  - to apply for nullifying all the liver favours, state subsidies and price favours, which were given to enterprises and to enterprises unions.
  - to stop the activity of enterprises till they will fulfil the prescriptions
  - to apply for closeing the enterprises
  - to apply for hullifying the permit of activity-licence of the physical person.
- (2) In the case of breaking the law which has specially hard consequences as mass disease, the cases of death, the accused persons are punished on the grond of Estonian penal code.

§ 14 ARGUEING AGAINST THE DECISIONS OF THE  
FOOD ADMINISTRATION

It is right to sue to the court against the decisions of the Food Administration in the course of ten working days.

§ 15 EXCEPTIONS

- (1) Exceptions from Food Act are allowed:
- for making new foodstuffs for experiments under supervisory authority, how far may wait for results, which may become the base of changing and complementing the Food Act.
  - for making some foodstuffs as distress measure, when the supplying of population with foodstuffs is seriously endangered (war situation, natural disasters, epidemics)
- (2) The Estonian government in collaboration with Health Ministry and Food Administration decrees the regulations of offering exceptions.

## APPENDIX II.

### ENSURING QUALITY MILK IN AN ORDERLY MARKET: ESTONIAN TEXT

Piima tee tootjalt tarbijani:

talunik ---> kokkuostja ---> hulgikaupleja ---> jaemüüja ---> tarbija

Piima tootvaid talundeid on palju; nad on geograafiliselt hajutatud ning erinevad suuruse ja tootmisvõimsuse poolest. Kokkuostjaid on aga ainult väike hulk. Seetõttu, vältimaks piima tootmisele negatiivselt mõjuvat kaost piimasaaduste turul, peab valitsus taluniku ja kokkuostja vahelisi õiguslikke ja majanduslikke suhteid teatud määral reguleerima.

#### Piima kvaliteeti puudutavad standardid

Piima kvaliteedi kindlustamiseks kehtestab valitsus kindlad standardid. Piima, mis vastab kvaliteeti puudutavatele standarditele, nimetatakse "legaalseks" piimaks. Nende standardite kohaselt ei tohi piim sisaldada antibiootikume, kemikaale ja teisi tarbija tervisele kahjulikult mõjuvaid aineid. Valitsus kehtestab ka piima bakterisisalduse piirmäärad. Valitsuse ulesanne on garanteerida kokkuostjale, et talunikult saadava piima kvaliteet vastab kehtivatele nõuetele.

#### Taluniku ja kokkuostja suhted

Kuivord piima pole enamasti võimalik talus säilitada või töödelda, peab tema kogumine talunikult toimuma iga päev või ülepäeviti. See asjaolu muudab piima- ja piimasaaduste tootmise ainulaadseks. Nii jõuab kokkuostjani iga päev, talunikule tema toodangu eest maksmine toimub aga tunduvalt pikemate ajavahemike järel. Talunike regulaarse tasustamise kindlustamiseks kehtestab valitsus maksete süsteemi, mille järgimine on kõigile kokkuostjatele kohustuslik.

#### Reguleerimise mehhanism

Taluniku ja kokkuostja suhete ning piima kvaliteedi reguleerimine algab parlamendist,

mis kehtestab vastava seadusandluse. Seaduste väljatootamise käigus konsulteerib parlament põllumajandus-ministeeriumiga. Põllumajandusministeerium omakorda võib konsulteerida talunike, kokkuostjate, tarbijate jt.

#### Nõuete ellurakendamine

Kokkuostja kontrollib piima kvaliteeti iga kuu ning informeerib kontrolli tulemustest põllumajandusministeeriumi. Kui piim ei vasta kehtivatele nõuetele, aitab kokkuostja talunikul tema toodangut standarditega vastavusse viia, võttes vajaduse korral toole asjatundjaid, kes teevad kindlaks probleemi põhjuse.

Põllumajandusministeerium võtab tarvitusele meetmed talunike suhtes, kes ei järgi piima kvaliteeti puudutavaid nõudeid. Kui piima kvaliteet leitakse kolmel korral viie kuu jooksul kehtivate standarditega vastuolus olevat, võidakse talunikul probleemide lahendamiseni keelata piima müük.

#### Taluniku ja kokkuostja suhteid puudutav dokumentatsioon

Seaduste kohaselt peab talunik saama kokkuostjalt järgmised dokumendid:

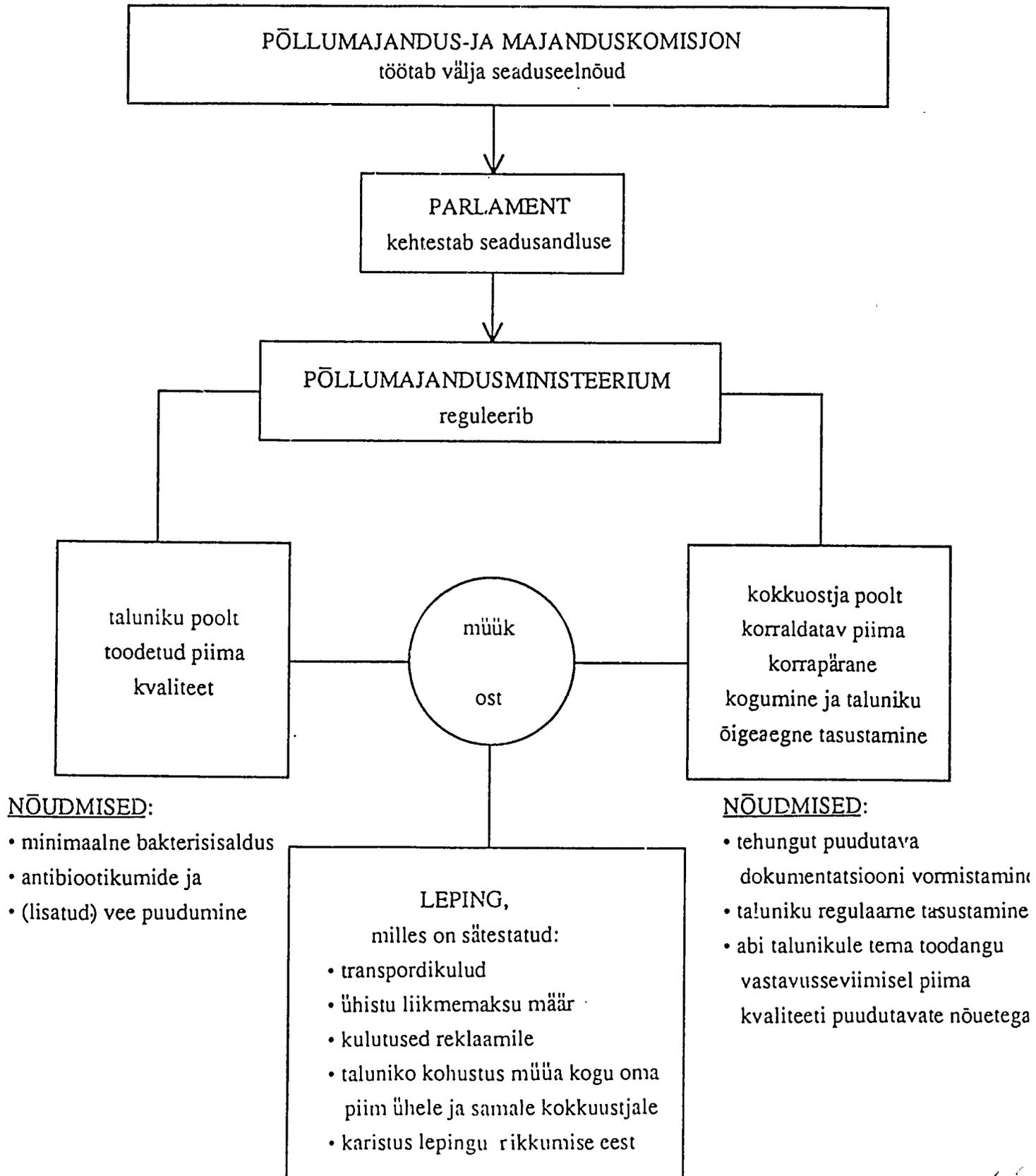
1. **Tähik, mis näitab kogutava piima hulka (liitrites või tsentnerites).**  
Iga kord, kui kokkuostja tarnib taluniku mahutist piima, peab talunik saama kviitungi tarnitava piima hulga kohta.
2. **Tähik piima kvaliteedi kontrollimise tulemuste kohta.**  
Vastava dokumendi saab talunik kuu viimase nädala (või mingi muu kindlaksmääratud ajavahemiku) jooksul.
3. **Tähik, mis näitab piima rasva-ja valgusisaldust (kui talunikule piima eest makstav hind sõltub nimetatud näitajatest).**  
Kuivord piima rasva-ja valgusisaldus võib isegi ühe kuu vältel suurel määral varieeruda, mõõdetakse nimetatud näitajaid kolm korda kuus; talunikule makstav hind põhineb arvatavale keskmisele. Talunikku informeeritakse mõõtmise tulemustest kuu viimase kümne päeva jooksul.

**4. Järgmisi andmeid sisaldav tähik, mille talunik saab kord kuus (kui kokkuostja on piima eest maksnud):**

- a. tehingu toimumise aeg (kuu)
- b. taluniku nimi ja isikutunnistuse number
- c. kokkuostja nimi
- d. talunikult saadud piima hulk (liitrites või tsentnerites)
- e. kuu keskmine piima rasva-ja valgusisaldus (kui nimetatud näitajate alusel makstakse lisatasu)
- f. piima "baashind" (s.o. piima hind ilma rasva-ja valgusisalduse või kvaliteedi alusel makstava lisatasuta)
- g. rasva-ja valgusisalduse diferentsiaal
- h. rasva-ja valgusisalduse või kvaliteedi alusel makstava lisatasu määr
- i. tasuvähenduste nimekiri (näiteks uhistu liikmemaks, transpordikulud jms.)
- j. tasuvähenduste määr, kui tasuvähendused põhinevad piima hulgal või kaalule
- k. talunikule makstava tasu kogusumma (puhastulu)

Kokkuostja on kohustatud maksma talunikule osa talle piima eest võlgnetavast summast hiljemalt viiendal päeval pärast iga kuu lõppu. Kogu võlgnetav summa peab olema talunikule makstud hiljemalt kahekümnendaks päevaks pärast iga kuu lõppu.

# PIIMA KVALITEEDI KINDLUSTAMINE TURUMAJANDUSE TINGIMUSTES



25

APPENDIX III.

ESTONIAN FOOD ACT RELATING TO THE PRODUCTION AND PROCESSING OF MILK AND MILK PRODUCTS: ESTONIAN TEXT

"LEGAALSET" PIIMA PUUDUTAVAD NORMID JA NÕUDED

I Määratlused

1. "Piima tootja" või "tootja" on üksikisik, osalühing, iseseisev (s.t. aktsiaseltsiga mitteühinenud) assotsiatsioon või aktsiaselts, kes (mis) omab või valdab ühte või enamat lehma ning müüb või pakub müügiks kogu või osa lehmade antud piima(st).
2. "Piimafarm" on maaala, hoone või asutus, kus lehmaid hoitakse ning kus toimub piima müük või müügiks pakkumine.
3. "Piimakombinaat" on maaala, hoone või asutus, kus piima või piimasaadusi kogutakse, ostetakse, müügiks valmis seatakse ja müüakse, töödeldakse, ladustatakse, pastöriseeritakse, aseptiliselt töödeldakse ja/või pakitakse.
4. "Ülekandejaam" on maaala, hoone või asutus, kus piim või piimasaadused kantakse ühest tsisternautost üle teise.
5. "Vastuvõtupunkt" on maaala, hoone või asutus, kus toimub toorpiima vastuvõtmine, kogumine, ostmine, müümine, ladustamine või külmutamine ning edasiseks transportimiseks valmisseadmine.
6. "Tsisternauto piima kogumiseks" on veok, mida kasutatakse piima toimetamiseks piimafarmist ülekandejaama, vastuvõtupunkti või piimakombinaati.
7. "Tsisternauto piima transportimiseks" on veok, mida kasutatakse piima edasitoimetamiseks ülekandejaamast või piimakombinaadist.
8. "Piima hulgi-kaupleja" või "hulgi-kaupleja" on üksikisik, iseseisev assotsiatsioon või aktsiaselts, kes (mis) ostab, müüb, kogub, varustab pakendiga või töötleb piima või piimasaadusi müügiks Eestis või väljaspool Eestit.

9. "Piima hulgikaupleja äripatent" on põllumajandusministeeriumi poolt välja antud tunnistus, mis annab tema omanikule õiguse tegeleda piima hulgikauplemisega.
10. "Piim" on piimandsoolte eritis, mis ei sisalda kolostrumi (ternespiima), millele pole midagi juurde juurde lisatud ega juurest ära võetud ning mida saadakse ühe või enama lehma täieliku lüpsmise teel. Tarbijatele müüdav piim pastöriseeritakse. Lehmapiim peab sisaldama vähemalt \_\_\_\_ protsenti piimarasva ja vähemalt \_\_\_\_ protsenti teisi piimas sisalduvaid tahkeid toitaineid. Niisugust piima voidakse standardiseerida puhta ja värske lõssi või koore lisamise või eemaldamise teel.
11. "Võltsimine". "Võltsitud" piimasaadus on piimasaadus, mis sisaldab ebatervislikke, kahjulikke või mürgiseid konservante, antibiootikume või teisi aineid tervisele kahjulikult mõjuvas koguses.

Märkus: Eesti piimatööstus on juba kasutusele võtnud määratlused teatud piimasaaduste kohta. Kõik piimasaadused peavad olema määratletud järgmises vormis: "Madala rasvasisaldusega koor" on see osa piimast, mis sisaldab mitte vähem kui 18 protsenti ning mitte enam kui 30 protsenti piimarasva. Teda võidakse pastöriseerida või ultrapastöriseerida ning ta võib sisaldada stabiliseerijaid, emulgaatoreid, magus- või maitseaineid. Koik koostisosad peavad olema loetletud toote etiketil.

Märkus: Eesti piimatööstus kasutab pastöriseerimismenetlusi. Nimetatud menetlused peavad olema määratletud määratluste alajaotuses. Näiteks: "Pastöriseeritud piimasaadus" on piimasaadus, mida on pastöriseerimiseks ettenähtud seadmestikus kuumutatud ühe alljärgnevas tabelis loetletud temperatuurini ja pidevalt hoitud vastaval temperatuuril tabelis märgitud ajavahemiku jooksul.

| TEMPERATUUR | AJAVAHEMIK    |
|-------------|---------------|
| 70' C       | 30 sekundit   |
| 80' C       | 15 sekundit   |
| 99' C       | 1 sekund      |
| 101' C      | 0,5 sekundit  |
| 105' C      | 0,1 sekundit  |
| 107' C      | 0,05 sekundit |
| 112' C      | 0,01 sekundit |

12. "Etikett". Kui põllumajandusministeerium pole andnud spetsiaalseid korraldusi, peavad kõigi jaemüügil müüdavate piimasaaduste etiketid sisaldama järgmist informatsiooni: (1) toiduaine nimetus, (2) toiduaine kogus, (3) hulgikaupleja nimi ja aadress ja (4) koostisosade loetelu tähtsuse (osakaalu) järjekorras.

## II Piima ja piimasaaduste kvaliteeti puudutavad standardid

Toorpiim, pastöriseeritud piim ja piimasaadused peavad vastama käesolevas alajaotuses loetletud temperatuuri, kemikaalide ja bakterite sisaldust ning loomade tervist puudutavatele standarditele.

Kõik hulgikauplejad peavad vähemalt kord kuus teostama tootjate piima kvaliteedi kontrolli ning informeerima tootjaid kontrolli tulemustest.

Tootjaid informeeritakse kõigist Eestis kehtivate toorpiima kvaliteeti puudutavate standarditega vastuolus olevatest näitajatest nende piimas vähemalt viis päeva enne järgmist kontrollikatset.

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

### PIIRMÄÄRAD

#### TOORPIIM

|                               |   |
|-------------------------------|---|
| Temperatuur                   | 5' C  |
| Bakterisisaldus               | 100 000 (arv milliliitri kohta)   |
| Külmumispunkt                 | -0,525' C   |
| Antibiootikumid               | puuduvad või esinevad määral, mida pole võimalik kontrollkatsel tuvastada |
| Somaatiliste rakkude sisaldus | 750 000 (arv milliliitri kohta)   |

#### PASTÖRISEERITUD PIIM

|                 |   |
|-----------------|---|
| Temperatuur     | 5' C  |
| Bakterisisaldus | 10 000 (arv milliliitri kohta)  |
| Koliform        | mitte üle 10 (arv milliliitri kohta)                                      |
| Antibiootikumid | puuduvad või esinevad määral, mida pole võimalik kontrollkatsel tuvastada |

### III Kvaliteedi kontrollimise korraldus

1. Iga hulgi kaupleja peab kord aastas (1. septembril) esitama kontrollkatsete tulemused põllumajandusministeeriumile. Vastavas dokumendis peavad olema märgitud kontrollkatsete tüüp ja sagedus (kuus), analüüsi teostava laboratooriumi nimi ning tootjate nimed, aadressid ja numbrid.

2. Põllumajandusministeeriumi vastava taotluse korral saadab hulgi kaupleja ministeeriumile koopia kõigist laboratoorsete analüüside tulemustest. Laboratoorsete analüüside tulemusi hoitakse piimakombinaadi vastavas toimikus, kus nad on kättesaadavad põllumajandusministeeriumile.

### IV Kvaliteedi kontrollinise süsteem

Piima koguja kohuseks on proovi võtmine iga piimafarmi poolt müügile saadetavast kogusest enne piima ülekandmist tsisternautost või mahutist.

Kõik proovid toimetatakse piimakombinaati, vastuvõtupunkti või ülekandejaama.

## A Uniform Transaction and Quality Control System for a Privatized Estonian Dairy Sector

Kuue kuu jooksul võetakse vähemalt neli proovi nii toorpiimast kui pastöriseeritud piimast.

Toorpiima puhul kontrollitakse bakterite, soomaatiliste rakkude ja antibiootikumide sisaldust ning külmumistemperatuuri. Peale selle kontrollitakse iga tootjalt ostetava koguse antibiootikumisisaldust.

Kui viimasest neljast erinevatel päevadel teostatud katsest piima rasva ja teiste tahkete toitainete ning bakterite ja soomaatiliste rakkude sisalduse, külmumistemperatuuri ja koliformi determinantide kontrollimiseks kahe tulemused ei ole kooskõlas piima ja piimasaadusi puudutavate standarditega, saadab põllumajandusministeerium tootjale kirjaliku märkuse. Vastav markus on jõus senikaua, kui viimasest neljast kontrollkatsest kahe tulemused on standarditega vastuolus. Toode kõrvaldatakse viivitamatult turult, kui viimasest viiest piimarasva, bakterite ja soomaatiliste rakkude sisalduse, külmumistemperatuuri ning koliformi determinantide kontrollimiseks teostatud katsest kolm näitavad, et toode ei vasta standarditele.

Kui kontrollkatse näitab, et piim sisaldab antibiootikume, inhibiitoreid või pestitsiide, tuleb normist hälbimise põhjus kindlaks teha ja likvideerida. Seejärel korratakse kontrollkatset. Piim lastakse müügile ainult siis, kui ta on antibiootikumidest ja pestitsiididest täielikult vaba.