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CRSP CENTRAL DATA BASE
INSTRUCTIONS FOR DATA ENTRY

EDITION 2.1

DECEMBER 1989

Pond Dynamics/Aquaculture
Collaborative Research Support Program
Office of International Research and Development
Oregon State University
Snell Hall 400
Corvallis, Oregon 97331-1641

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TABLE OF CONTENTS

Page

INTRODUCTION 2

INSTRUCTIONS FOR DATA ENTRY

Before Beginning 3
General Information 3
General Instructions 4
Instructions for Individual Templates
Daily Weather Measurements 5
Daily Pond Measurements 5
Miscellaneous Observations Including Fish Health . . 5
Intensive Sampling Measurements 5
Diel Measurements 6
Fish Stocking, Sampling, and Harvesting 6
Plankton and Benthos 6
Water Quality Measurements 7
Pond Soil Measurements 7
Pond Morphometrics 7
Analysis of Nutrients and Lime 7
Nutrient and Lime Inputs 7

HOW TO NAME FILES 8

APPENDICES

A. Code Lists 9
B. Templates 13

INTRODUCTION

This document contains Edition 2.1 of instructions for entering standardized field data from the CRSP global experiment into the CRSP Central Data Base. The CRSP Central Data Base is maintained by the CRSP Program Management Office (PMO). Edition 2.1 reflects current data management techniques and specifically applies to data collected in accordance with the CRSP Fourth Work Plan.

Management of the CRSP Central Data Base consists of three general activities: assisting data reporting, file management, and information retrieval. These instructions are to aid in data reporting.

Field data are reported to the PMO by the CRSP projects in spreadsheet format using commercially available software. The files received from the projects are modified as necessary to be read into the CRSP Central Data Base using R:Base for DOS. Files are stored on 20 megabyte Bernoulli cartridges.

Data are accepted from IBM and compatible users in Lotus 1-2-3 format and from Macintosh users in Excel format. Macintosh Excel data are converted to an IBM format using Apple File Exchange software on a Macintosh II. Templates for data reporting are provided to the field stations on diskettes and in hardcopy (Appendix B).

Data are output from R:Base in either Lotus 1-2-3 or ASCII formats. Data are distributed on 5.25 inch floppy disks or can be made available on 20 mb Bernoulli cartridges (either 8-inch or 5.25-inch cartridges).

CRSP data from the first three Work Plans were referred to by a string of identifiers including, site, cycle, season, day, month, year, and pond number. Any questions addressed to the PMO regarding specific data from these Work Plans should include at least the site, cycle, and season. CRSP data from the CRSP Fourth Work Plan, and subsequent Work Plans, should be identified by a string of identifiers including, site, workplan, experiment, day, month, year, and pond number.

INSTRUCTIONS FOR DATA ENTRY

BEFORE BEGINNING:

Review the most recent CRSP Work Plan, especially sections dealing with the frequency and type of measurements. The most recent Work Plan is, CRSP Work Plan: Fourth Experimental Cycle, September 1, 1987 - August 31, 1989 (revised January 1989).

GENERAL INFORMATION:

The original 12 templates (as published in Edition 1.1 of this manual) were modified to accommodate changes in the CRSP experiments. Eleven templates are to be used in data reporting. The templates are arranged in approximately the same order as the Third CRSP Work Plan.
The templates and their file names are as follows:

TITLE	FILE NAME (Cycles 1,2,3)	FILE NAME (Work Plans 4 and up)
A. Daily Weather Measurements	WEATHER	WEATHER
B. Daily Pond Measurements	DAYPOND	DAYPOND
C. Miscellaneous Observations Including Fish Health	MISCELL	MISCELL
D. Intensive Sampling Measurements	WEEKLY	INTENSE
E. Diurnal Measurements	DIURNAL	DIEL
F. Fish/Shrimp Stocking, Sampling, and Harvesting	FISH	FISH
G. Plankton and Benthos	PLANKTON	PLANKTON
~~H. Water Quality Characteristics~~	~~WATERQ~~	ELIMINATED
I. Pond Soil Characteristics	SOIL	SOIL
J. Pond Morphometrics	MORPH	MORPH
K. Analysis of Nutrients and Lime	NUTRIENT	NUTRIENT
L. Nutrient and Lime Inputs	INPUTS	INPUTS

Printouts of these templates are contained in Appendix B.

Each template contains column headings, the units to be used in reporting data (for example, mg/l or deg C), and an indicator of the precision to which measurements should be made (for example, xxx indicates that the measurement will be an integer with up to three digits).

GENERAL INSTRUCTIONS:

IF YOU DO NOT HAVE DATA FOR A GIVEN CELL OR COLUMN, LEAVE THE CELL OR COLUMN BLANK. DO NOT PUT IN ANY SYMBOL, INCLUDING A ZERO, TO INDICATE THAT DATA ARE UNAVAILABLE.

To ease data transfers between different systems, no individual file should exceed 360,000 bytes, despite greater disk capacity. Greater than or less than symbols should be avoided since they are excluded from the CRSP Central Data Base. No formulas should be included within data sets submitted to the PMO. Change all data that are formula derived to a "value" before forwarding data to the PMO.

Each line of data must include "identifying columns". These columns are SITE, WORKPLAN, EXPERIMENT, DAY, MONTH, YEAR, POND#,(and TIME where applicable). Identifiers are essential for locating data subsequent to their merger into the larger data base, and for communication among CRSP workers.

Codes for "**Site,**" "**Workplan,**" and "**Experiment**" should be taken from the code lists in Appendix A.

"**Year**" should be entered as a complete <u>four-digit</u> value (i.e., enter "1986", rather than "86").

The "**Pond#**" variable should be used to indicate various pond sites within a country as well as individual ponds within a site. For example, in Work Plan 5, Rwanda Experiment 3, titled "On-Farm Studies - Effects of Elevation," five ponds at five elevations will be used. In this case the pond number should reflect both the elevation and the individual pond at the site. It is important to be able to distinguish ponds that are at different sites within a country. Pond numbers can be up to 5 spaces long, and can contain both letters and numbers.

Keep any new code created in the field (that is, any code other than those listed in the appendices) to the same length (number of fields) as a comparable code in the appendices. For example, under "Nutrient and Lime Codes" in Appendix A, the manure types vary from three to five letters in length. Therefore any manure type used that is not listed in Appendix A, should be between three and five letters long (ie; Buffalo could be shortened to BUFF). Codes with unique characters are best. Notify the PMO of any new codes used.

INSTRUCTIONS FOR INDIVIDUAL TEMPLATES:

(Note: These instructions contain information not included in the current Work Plan.)

A. WEATHER (Daily Weather Measurements)

Data should be recorded continuously, by calendar year.

B. DAYPOND (Daily Pond Measurements)

"Water Inflow" - If water was added to a pond by farm staff (not by the rain), enter Y (yes). If water was not added, enter N (no). This information will be used in water budget studies.

"Pond Overflow" - If the pond overflowed because too much water was added to the pond by the staff, enter Y for yes, otherwise enter N for no.

Enter both the **"Number of Dead Fish"** that were observed in each pond on any given date, and the corresponding **"Species Code,"** (Appendix A). If more than one species has died, use more than one data line. Identifiers should be on each line.

New variable: **seepage.**

C. MISCELL (Miscellaneous Observations Including Fish Health)

This template is to record observations which do not belong on any other template. Fish health is a particularly important observation to include.

D. INTENSE (Intensive Sampling Measurements)

Data for this template are collected three times per experiment: the second week, mid-experiment, and the final week.

"Chlorophyll a" both corrected and uncorrected. Corrected means without phaephyton, and uncorrected refers to total chlorophyll a.

"Secchi disk" visibility measurements are taken at two locations, **"A"** and **"B"**.

New variables: **dark bottle respiration, total suspended solids, total volatile solids,** and **whole pond production.**

E. DIEL (Diel Measurements)

Data for this template are collected three times per experiment: the second week, mid-experiment, and the final week. These measurements should be made on, or as close to, the same day as the Template D measurements. Measurements are to be made at the following sample times: pre-dawn, 1000, 1400, 1600, 1800, 2300, and pre-dawn of the next day.

Dissolved oxygen sampling time, **"Time of Day,"** should be recorded as a four-digit number without a colon and a twenty-four hour clock should be used. For example, use "1645" rather than "4:45pm". Do not use the time function in either Lotus 1-2-3 or Excel.

"Oxygen," "Pond Temp," "pH," and **"Alkalinity"** measurements should be taken at three depths where **"top"** is 25 cm below the water surface, **"mid"** is midwater column, and **"bot"** is 25 cm above the pond bottom.

New variables: **cumulative** (between sampling times) **wind speed** and **solar radiation,** and **pH** and **alkalinity** at three depths (top, middle, and bottom).

F. FISH (Fish Stocking, Sampling, and Harvesting)

"Total population without reproduction" refers to those individuals of the indicated species which were stocked into or harvested from the pond, excluding any progeny. Under **"Sample Weight"** and **"Sample Length,"** columns are provided for the number of individuals in the sample, mean values, and standard deviations.

New variable: **survival** (% of initial population stocked).

G. PLANKTON (Plankton and Benthos)

This template is used to record **"Phytoplankton Composition," "Zooplankton Composition,"** and **"Benthos Composition."** These are recommended measurements.

Zooplankton should be reported as "number of organisms/m^3," benthos as "number of organisms/m^2," and phytoplankton as "percent of organisms."

New variable: **whole pond respiration.**

H. WATERQ (Water Quality Measurements)

This template has been eliminated. However "Template H" should NOT be used as a name for any other Template to avoid confusion with data previously collected.

I. SOIL (Pond Soil Measurements)

Soil analyses should be conducted at the end of each experiment and before beginning another.

J. MORPH (Pond Morphometrics)

This template is to record the **area** and **volume** of each pond, at 10 centimeter intervals. Measurements should be made at project initiation and whenever ponds are altered. If a pond's depth exceeds 130cm, follow the template format, and record the area and volume for each additional 10-cm depth increment.

New variable: **watershed area.**

K. NUTRIENT (Analysis of Nutrients and Lime)

New variable: **chemical oxygen demand.**

L. INPUTS (Nutrient and Lime Inputs)

This template should be used to record nutrient inputs, including "**Feed**," "**Manure**," "**Inorganic**" (fertilizer), and "**Lime**." Refer to the attached code lists for the appropriate codes for feed, manure, inorganic, and lime "types."

HOW TO NAME FILES

Each data file should be given a filename consisting of an 8-character letter/number combination created in the following way:

First character: enter a single letter designating the SITE. Use the letter given for the appropriate site listed in Appendix A.

Second character: enter a single letter indicating the TEMPLATE used. Use the following letters for the templates:

TEMPLATE FILENAME	LETTER
WEATHER	A
DAYPOND	B
MISCELL	C
INTENSE	D
DIEL	E
FISH	F
PLANKTON	G
SOIL	I
MORPH	J
NUTRIENT	K
INPUTS	L

The appropriate letter is also given in the title on each of the templates.

Third through eighth characters: enter a six-digit number showing the first date on which data in this file were collected. This will be the date on the first line of data in the file. The date must be entered with the day first, month second, and year last. The day, month, and year should each be expressed as two-digit numbers with no spaces between them.

Properly-entered filenames for data files appear as follows:

CA010187 = Ayutthaya (Thailand), daily WEATHER template beginning on 1 January, 1987)

FD271188 = Comayagua, (Honduras), INTENSE template beginning on 27 November, 1988).

This method of naming files is identical to that used in reporting all previous CRSP data.

APPENDIX A - CODE LISTS[1]

SITE CODES: (All Templates)

Current Sites:

Ayutthaya (Thailand)	= C
Comayagua (Honduras)	= F
Butare (Rwanda)	= H

Previous CRSP Sites: (First Three Work Plans)

Aguadulce (Panama)	= A
Gualaca (Panama)	= B
Nong Sua (Thailand)	= D
Bogor (Indonesia)	= E
Iloilo (Philippines)	= G

WORK PLAN: (Four and Above)

Dates:

September 1, 1987 - August 31, 1989	= 4
September 1, 1989 - August 31, 1991	= 5

EXPERIMENTAL CYCLE CODES: (First Three Work Plans)

First Experimental Cycle	= 1
Second Experimental Cycle	= 2
Third Experimental Cycle	= 3

EXPERIMENT NUMBER: (numbers follow Work Plans)

WORK PLAN 4:

HONDURAS

Experiment 1 (9/1/87-8/31/88)	= 1
Experiment 2 (9/1/88-8/31/89)	= 2
Experiment 3 (Granjas Marinas San Bernardo)	= 3

RWANDA

Experiment 1 (Compost Characteristics)	= 1
Experiment 2 (Pond Response in Relation to Compost Type)	= 2
Experiment 3 (Loading Rate and Pond Productivity)	= 3

1/ Inform the PMO if a different code is used.

THAILAND
Experiment 1 = 1
(Fish Stocking Density)
Experiment 2 = 2
(Elemental Ratios in Fertilizer)
Experiment 3 = 3
(Pond Depth)

WORK PLAN 5:

HONDURAS
Experiment 1 = 1
(Maintenance of Minimum Dissolved Oxygen Concentrations)
Experiment 2 = 2
(Factors Affecting Tilapia Sex-Reversal)
Experiment 3 = 3
(Temperature Effects on Fry Production)
Experiment 4 = 4
(Fertilization - High Loading of Chicken Manure)
Experiment 5 = 5
(Soil-Water Interactions)
Experiment 6 = 6
(Supplemental Feed/Manure Combinations)
Experiment 7 = 7
(Supplemental Feeding - Effects of Fish Density)
Experiment 8 = 8
(Effects of Pond Size)
Experiment 9 = 9
(On-Farm Studies - Feeding Trials in Brackish Water)

RWANDA
Experiment 1 = 1
(Effects of Fish Density & Nutrient Loading Frequency)
Experiment 2 = 2
(On-Farm Studies - Characterization of Farms)
Experiment 3 = 3
(On-Farm Studies - Effects of Elevation)
Experiment 4 = 4
(On-Farm Studies - Supplemental Feeding)
Experiment 5 = 5
(Effects of Diel Temperature Fluctuation on Growth)
Experiment 6 = 6
(Digestability of Natural Food Organisms)
Experiment 7 = 7
(Balancing Protein/Energy Ratios of Natural Food)
Experiment 8 = 8
(Economic Analysis of Aquaculture Production Systems)

THAILAND
Experiment 1 = 1
(Effects of Density and Fertilization on Tilapia Reprod.)
Experiment 2 = 2
(Nutrient Balance - Carbon)

Experiment 3 = 3
(Tilapia/*Clarias* Polyculture)
Experiment 4 = 4
(Nutrient Balance - Nitrogen and Phosphorus)
Experiment 5 = 5
(Effects of Circulation in Deep Ponds - Wet Season)
Experiment 6 = 6
(Effects of Circulation in Deep Ponds - Dry Season)
Experiment 7 = 7
(Nutrient Cycling - Use of Bioassays)
Experiment 8 = 8
(Supplemental Feeding in Fertilized Ponds)
Experiment 9 = 9
(Effects of Pond Size)
Experiment 10 = 10
(Maintenance of Minimum Dissolved Oxygen Concentrations)
Experiment 11 = 11
(On-Farm Studies - Verification of CRSP Results)

SEASON CODES: (First Three Work Plans)

Dry Season = D
Wet Season = W

WATER INFLOW QUESTION CODES: (Template B)

If water was added to pond ("yes") = Y
IF water was not added ("no") = N

POND OVERFLOW QUESTION CODES: (Template B)

If pond *did* overflow ("yes") = Y
If pond *did* *not* overflow ("no") = N

ACTIVITY CODES: (Template F)

Stocking = STK
Sampling = SAM
Harvesting = HAR

FISH/SHRIMP SPECIES CODES: (Templates B, C, F)

Oreochromis ("Tilapia") *niloticus* = NIL
Oreochromis ("Tilapia") *hornorum* = HOR
O. niloticus X *O. hornorum* hybrids = NXH
Chanos chanos = CHA
Penaeus vannamei = VAN
Penaeus stylirostris = STY
Penaeus monodon = MON

NUTRIENT AND LIME CODES: (Templates K, L)

Feed Types[2]	
Feed Type 1	= FD1
Feed Type 2	= FD2
Manure	
Chicken	= CHICK
Duck	= DUCK
Pig	= PIG
Cattle	= COW
Horse	= HORSE
Inorganic Fertilizer	
Triple Superphosphate	= TSP
Urea	= UREA
16-20-0	= I16200
Lime	
$CaCO_3$	= CAC
$CaMg(CO_3)_2$	= CAM
$Ca(OH)_2$	= CAO

2/ Use FD1 to indicate the first type of feed used. Use FD2, FD3, etc. sequentially only if feeds are changed. Once a code is assigned to a particular feed, that code cannot be used for another feed.

APPENDIX B - TEMPLATES

DAILY WEATHER MEASUREMENTS (Template Code = A)

SITE	WORK PLAN	EXP NO.	DATE DAY	DATE MONTH	DATE YEAR	SOLAR RADIATION E/m2/d	SOLAR RADIATION cal/cm2/d	RAIN cm/d	MEAN WIND km/hr	AIR TEMP MAX. deg C	AIR TEMP MIN. deg C	EVAPORATION mm/d
			XX	XX	XXXX	XX.XX	XXXXXX	XX.X	XX	XX.X	XX.X	XX

DAILY POND MEASUREMENTS (Template Code = B)

SITE	WORK PLAN	EXP NO.	DATE DAY	DATE MONTH	DATE YEAR	POND	POND DEPTH m	WATER INFLOW?	POND OVER-FLOW?	NUMBER OF DEAD FISH/ SHRIMP	SPECIES CODE	WATER FLOW m2	SEEPAGE cm/d
			XX	XX	XXXX		X.XX	Y or N	Y or N			XXXX	XXX.X

MISCELLANEOUS OBSERVATIONS INCLUDING FISH HEALTH (Template Code = C)

SITE	WORK PLAN	EXP NO.	DATE DAY	DATE MONTH	DATE YEAR	POND	WRITE OBSERVATIONS IN THIS COLUMN. USE MORE THAN 1 LINE IF NECESSARY. INCLUDE "IDENTITY" INFORMATION ON EACH LINE.
			XX	XX	XXXX		

INTENSIVE SAMPLING MEASUREMENTS, 3 TIMES PER EXPERIMENT - 2ND WEEK, MID-EXPERIMENT, FINAL WEEK. (Template Code = D)

SITE	WORK PLAN	EXP NO.	DATE DAY	DATE MONTH	DATE YEAR	POND	ALKA mg/L CaCO3	pH	KJELDAHL N mg/L	AMMONIA N mg/L	TOTAL P mg/L	S.DISK A cm	S.DISK B cm	CORRECTED CHLORO-a mg/m3	UNCORRECTED CHLORO-a mg/m3	SUSPENDED SOLIDS mg/L	VOLATILE SOLIDS mg/L	DARK BOTTLE RESPIRATION mg O2/L/d
			XX	XX	XXXX		XXX	XX.X	X.XX	X.XX	X.XX	XX	XX	XXXX	XXXX	XXX	XXX	XXX.X

DIEL MEASUREMENTS, 3 TIMES PER EXPERIMENT (2ND WEEK, MID-EXPERIMENT, FINAL WEEK), 7 SAMPLING TIMES (pre-dawn.1000,1400,1600.1800,2300,pre-dawn), (Template Code = E)

SITE	WORK PLAN	EXP NO.	DATE DAY	DATE MONTH	DATE YEAR	TIME OF DAY	POND	OXYGEN TOP mg/L	OXYGEN MID mg/L	OXYGEN BOT mg/L	POND TEMP. TOP deg C	POND TEMP. MID deg C	POND TEMP. BOT deg C	pH TOP	pH MID	pH BOT	ALKALINITY TOP mg CaCO3/L	ALKALINITY MID mg CaCO3/L	ALKALINITY BOT mg CaCO3/L	CUMULATIVE BTWN. SAMPLING TIMES WIND km/hr	CUMULATIVE BTWN. SAMPLING TIMES SOLAR RADIATION E/m2/d
			XX	XX	XXXX	XXXX		XX.X	XX.X	XX.X	XX.X	XX.X	XX.X	XX.X	XX.X	XX.X	XXX	XXX	XXX	XX	XXXXXX

FISH/SHRIMP STOCKING, SAMPLING AND HARVEST (Template Code = F)

SITE	WORK PLAN	EXP NO.	DATE DAY	DATE MONTH	DATE YEAR	POND	ACTIVITY CODE	SPECIES CODE	TOTAL POPULATION w/o REPRODUCTION WT.(kg)	TOTAL POPULATION w/o REPRODUCTION No.	SAMPLE WEIGHT (g) MEAN	SAMPLE WEIGHT (g) No.	SAMPLE WEIGHT (g) S. DEV	SAMPLE LENGTH (cm) MEAN	SAMPLE LENGTH (cm) No.	SAMPLE LENGTH (cm) S. DEV	REPRODUCTION WT.(kg)	REPRODUCTION No.	SURVIVAL (% OF INITIAL STOCKED)
			XX	XX	XXXX				XXXX.X		XXX		XXX.X	XX.X		XX.XX	XXX.X		

PLANKTON AND BENTHOS (Template Code = G)

SITE	WORK PLAN	EXP NO.	DATE DAY	DATE MONTH	DATE YEAR	POND	PRIMARY PRODUCTION NET mg C/m3/d	PRIMARY PRODUCTION GROSS mg C/m3/d	WHOLE POND RESP. mg O2/L/d	PHYTOPLANKTON ABUNDANCE BLUE-GREEN	PHYTOPLANKTON ABUNDANCE GREEN	PHYTOPLANKTON ABUNDANCE DIATOM	PHYTOPLANKTON ABUNDANCE OTHER	ZOOPLANKTON ABUNDANCE ROTIFERA	ZOOPLANKTON ABUNDANCE CLADOCERA	ZOOPLANKTON ABUNDANCE COPEPODA	ZOOPLANKTON ABUNDANCE OTHER	BENTHOS ABUNDANCE MOLLUSCA	BENTHOS ABUNDANCE INSECTA	BENTHOS ABUNDANCE DECAPODA	BENTHOS ABUNDANCE OTHER
			XX	XX	XXXX		XXXXX	XXXXX	XXX.X	% of organisms				no. of organisms/m3				no. of organisms/m2			

POND SOIL MEASUREMENTS, BEGINNING AND END OF EXPERIMENT, (Template Code = I)

SITE	WORK PLAN	EXP NO.	SAMPLE DATE DAY	SAMPLE DATE MONTH	SAMPLE DATE YEAR	POND	CLAY %	SILT %	SAND %	ORG. MAT. %	pH (WET)	P ppm	Ca meq/100g	Mg meq/100g	K ppm	Na meq/100g	TOTAL N %	NH4-N ppm	NO3-N ppm	C.E.C meq/100g	SOLUBLE SALTS mmhos/cm	Al ppm	Fe ppm	Zn ppm	Mn ppm	Cu ppm	SO4-S ppm	LIME REQ (SMP)	FREE CaCO3 meq/;	EXCH-H meq/100g	EXCH-NA meq/100g
			XX	XX	XXXX		XX.X	XX.X	XX.X	XX.X	XX.X	XXXXX	XXX.X	XXX.X	XXXXX	XXX.X	XX.XX	XXXXX.X	XXXXX.X	XXXX	XX.X	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	X.X	XXX.X	XXX.X	XXX.X

POND MORPHOMETRICS (Template Code = J)

SITE	DATE DAY	DATE MONTH	DATE YEAR	POND	DEPTH = 10cm AREA m2	DEPTH = 10cm VOLUME m3	DEPTH = 20cm AREA m2	DEPTH = 20cm VOLUME m3	DEPTH = 30cm AREA m2	DEPTH = 30cm VOLUME m3	DEPTH = 40cm AREA m2	DEPTH = 40cm VOLUME m3	DEPTH = 50cm AREA m2	DEPTH = 50cm VOLUME m3	DEPTH = 60cm AREA m2	DEPTH = 60cm VOLUME m3	DEPTH = 70cm AREA m2	DEPTH = 70cm VOLUME m3	DEPTH = 80cm AREA m2	DEPTH = 80cm VOLUME m3	DEPTH = 90cm AREA m2	DEPTH = 90cm VOLUME m3	DEPTH = 100cm AREA m2	DEPTH = 100cm VOLUME m3	DEPTH = 110cm AREA m2	DEPTH = 110cm VOLUME m3	DEPTH = 120cm AREA m2	DEPTH = 120cm VOLUME m3	DEPTH = 130cm AREA m2	DEPTH = 130cm VOLUME m3	WATERSHED AREA m2
	XX	XX	XXXX		XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	X.X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXXX

ANALYSIS OF NUTRIENTS AND LIME (Template Code = K)

SITE	WORK PLAN	EXP NO.	SAMPLE DATE DAY	SAMPLE DATE MONTH	SAMPLE DATE YEAR	TYPE OF NUTRIENT OR LIME	DRY MATTER %	COMPOSITION AS % DRY MATTER N	P	K	ORGANIC C	S	LIME NEUT. VALUE %	COD mg/L
			XX	XX	XXXX		XX.X	XX.X	XX.X	XX.X	XX.X	XX.X	XXX.X	XXX.X

NUTRIENT AND LIME INPUTS (Template Code = L)

SITE	WORK PLAN	EXP NO.	DATE DAY	DATE MONTH	DATE YEAR	POND	FEED TYPE	FEED kg/ha	MANURE TYPE	MANURE kg/ha	INORGANIC TYPE	INORGANIC kg/ha	LIME TYPE	LIME kg/ha
			XX	XX	XXXX			XXX		XXX		XXX		XXX