

PCDAIRY

**Least Cost and Ration Analysis Programs
for Dairy Cattle
Version Number 2015
Regional Software Dissemination Site: USA**

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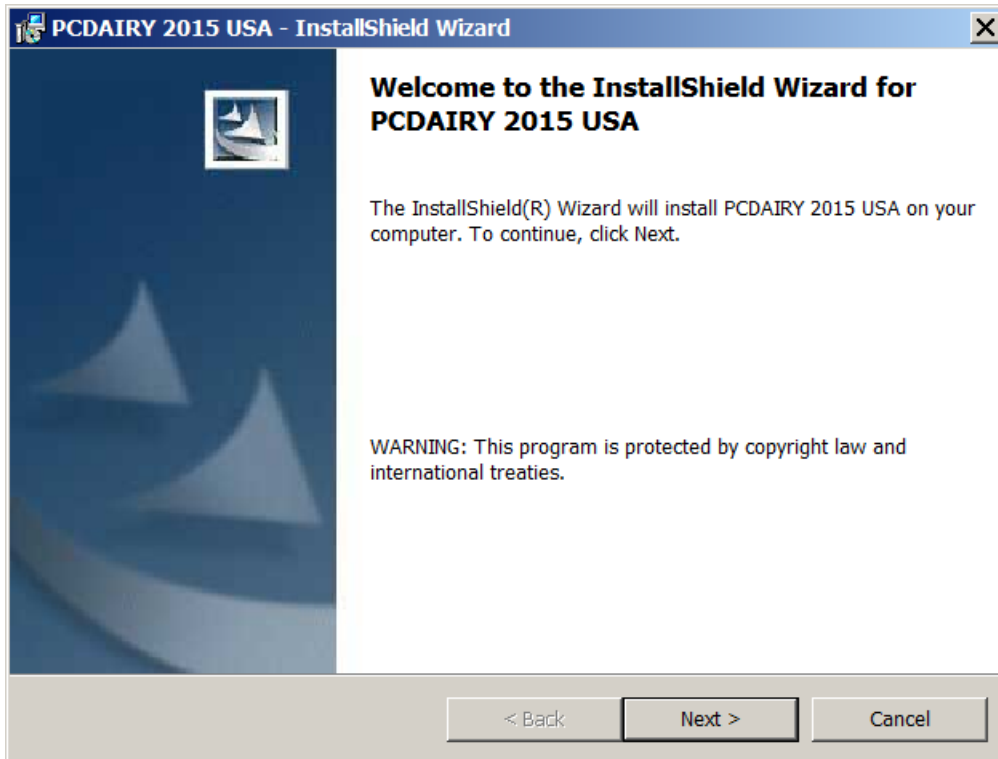
How to Install?

1. Insert the PCDAIRY CD into the CD-Rom drive.
2. Using your Windows Explore, navigate to the CD and you will see a file called Setup.exe:



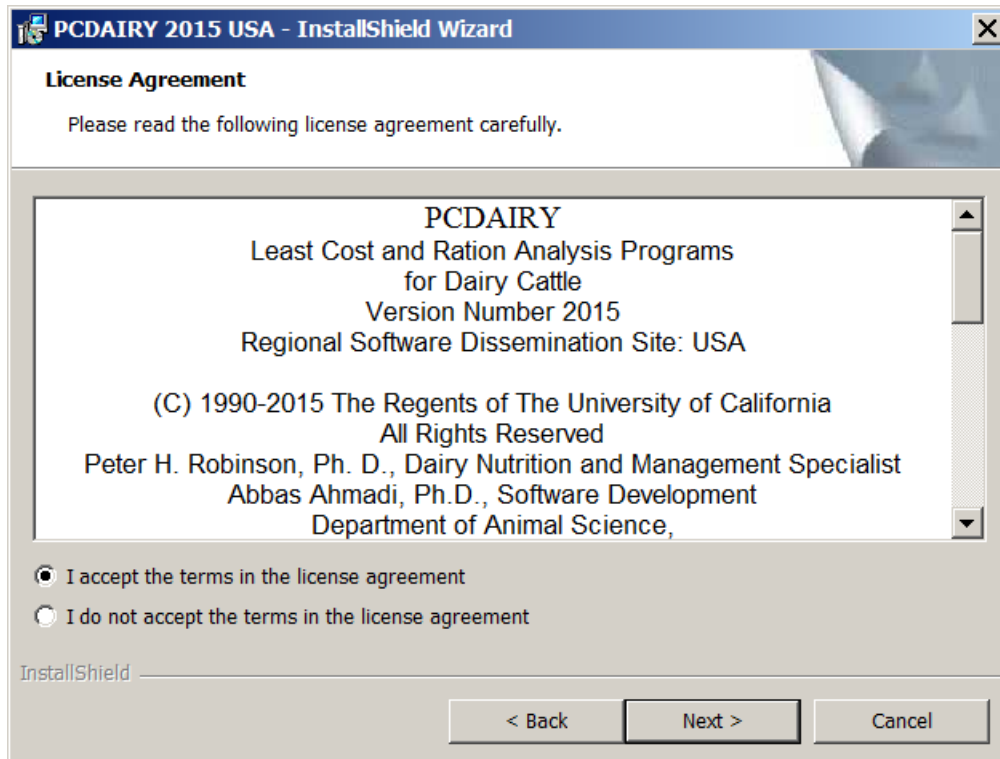
Setup.exe

3. Double click Setup.exe. The Welcome dialog box appears:



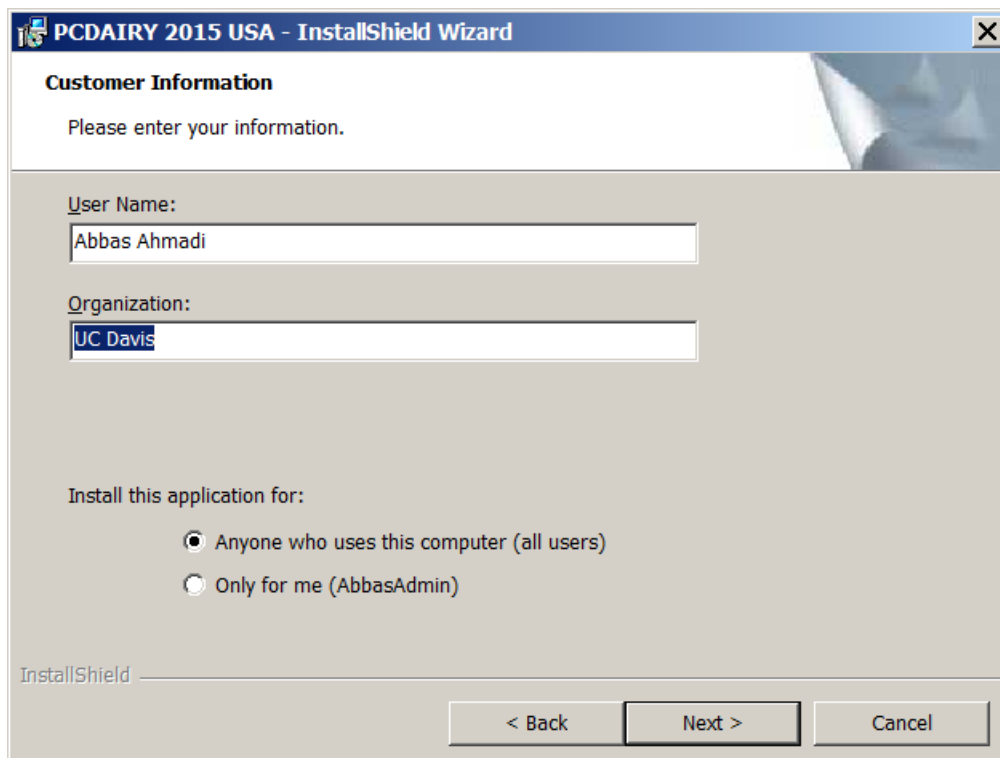
Click the Next button.

4. The License Agreement dialog box appears:



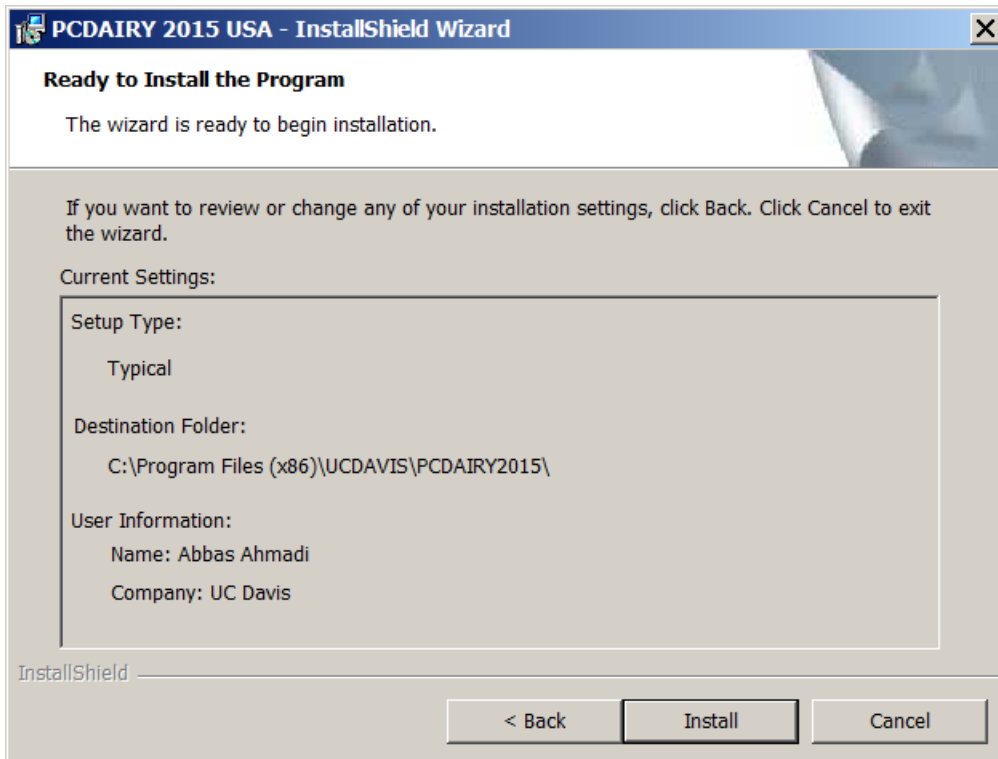
Accept the terms in the license agreement and click the Next button.

5. The Customer Information dialog box appears:



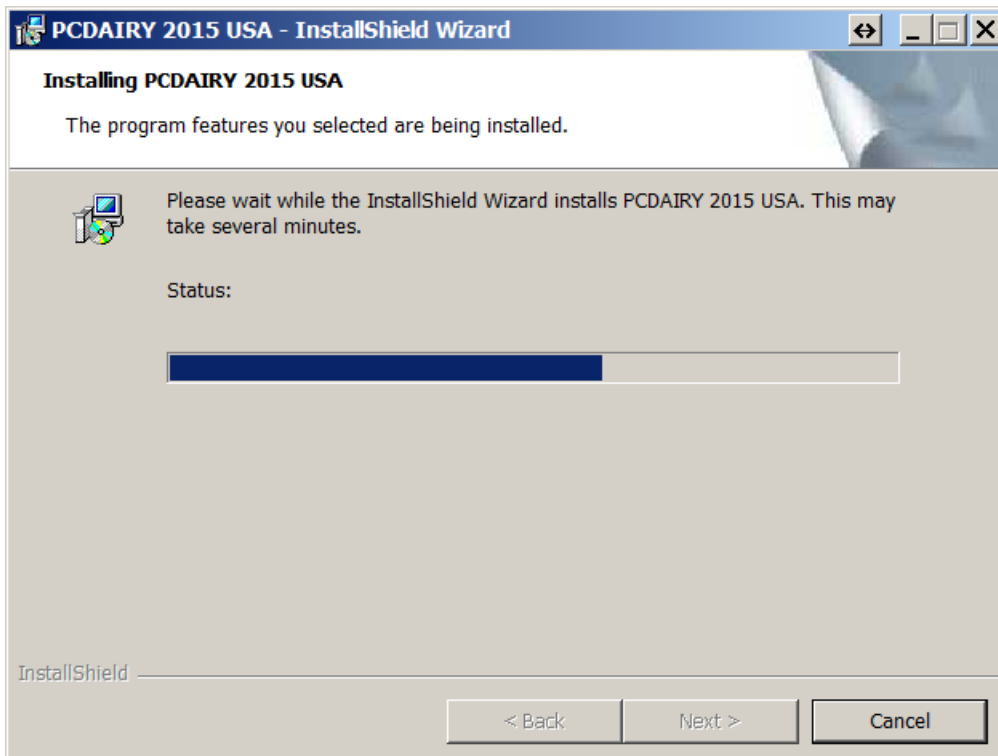
Enter your name and your organization and click the Next button.

6. The "Ready to Install the Program" dialog box appears:

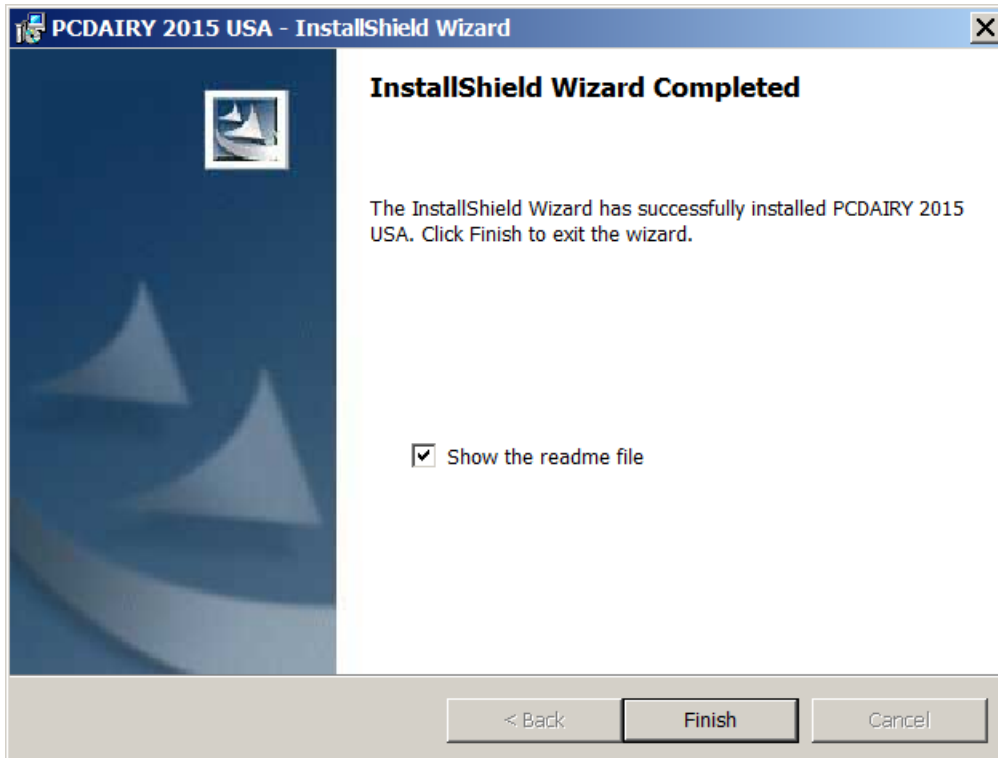


Click the Install button.

7. The wizard will install the PCDAIRY program on your computer. It may take SEVERAL minutes:



8. Finally, the final dialog box appears:



Click the Finish button. The wizard finishes the installation and will place a shortcut to PCDAIRY on your desktop. It also adds the PCDAIRY to your program menu.

9. It will create a folder called "**C:\Program Files\UCDAVIS\PCDAIRY2015**" and will place the **PCDAIRY.exe** file plus the **demo.pcd** ration file in that folder

PCDAIRY folder

All PCDAIRY files are stored in the following folder:

C:\Program Files\UCDAVIS\PCDAIRY2015

Ration Files

All PCDAIRY ration files have the .PCD extension and are stored, by default, in the above folder.

Feed Library Files

There are four feed library files: (1) COWFEEDS.DBF, standard feed library; (2) COWALT.DBF, alternate feed library; (3) GRPCOW.DBF, feed group library; (4) COWINFEA.DBF, infeasible feed library. These files are stored in the **C:\Program Files\UCDAVIS\PCDAIRY2015** folder.

PCDAIRY Manual

The PCDAIRY manual, Manual.pdf, is stored in the PCDAIRY folder. To view and print this file, you need Adobe Acrobat Reader. You can get a free copy of this software by visiting the following web site:

<http://www.adobe.com/products/acrobat/readstep2.html>

The PCDAIRY order form, OrderForm.pdf, is also in the same folder.

How to Run?

1. Click the Start button and then choose the "All Programs". A menu list appears.
2. Choose the "UCDAVIS" option. A sub-menu appears.
3. Choose the "PCDAIRY2015" option. Another sub-menu appears. Choose the "Launch PCDAIRY 2015 USA" option. The sign-on banner of PCDAIRY appears. Click the OK button. The main menu of PCDAIRY appears:



Choose the "Least Cost Ration: Growing or Finishing Cattle" option. The Animal Information dialog box appears:

4. Animal Information dialog box:

PCDAIRY 2015 USA [LC]

ANIMAL INFORMATION:

Title line 1: Date:

line 2:

Wt Unit:

Formulation is based upon:

and:

and:

Cow weight: lb

Milk production: lb

Milk fat: %

Daily body weight change: lb

NEL added for activity: %

First lactation cows: %

Second lactation cows: %

Average DIM for group:

Files < Go to > Help Formulate Main Menu

From the "Files" menu, choose the "Open" option. Navigate to C:\Program Files\UCDAVIS\PCDAIRY2015\ folder. Open the Demo.Pcd ration file.

Click the [>] (Next Button). The Nutrient Constraints dialog box appears.

5. The Nutrient Constraints dialog box:

No	Code	Name	MIN Amount Unit	MAX Amount Unit
1	DM	Dry Matter	35.000 %	0.000
2	NEL	Net Energy for Lact	36.985 Mcal	0.000
3	CP	Crude Protein	16.000 %	0.000
4	CP	Crude Protein	7.727 lb	0.000
5	ADF	Acid Detergent Fiber	21.000 %	0.000
6	CA	Calcium	0.600 %	0.000
7	CA	Calcium	0.299 lb	0.000
8	CL	Chlorine	0.250 %	0.000
9	K	Potassium	0.900 %	0.000
10	MG	Magnesium	0.200 %	0.000
11	NA	Sodium	0.180 %	0.000
12	P	Phosphorus	0.380 %	0.000
13	P	Phosphorus	0.190 lb	0.000
14	S	Sulfur	0.200 %	0.000
15	FAT	Crude Fat	0.000	8.000 %
16	NPN	Nonprotein Nitrogen	0.000	0.500 %
17			0.000	0.000
18			0.000	0.000
19			0.000	0.000
20			0.000	0.000
21			0.000	0.000
22			0.000	0.000
23			0.000	0.000
24			0.000	0.000

Here you can click the "ReCalc" button to populate this dialog box with a set of default constraints. You can add, delete or modify any or all of these constraints.

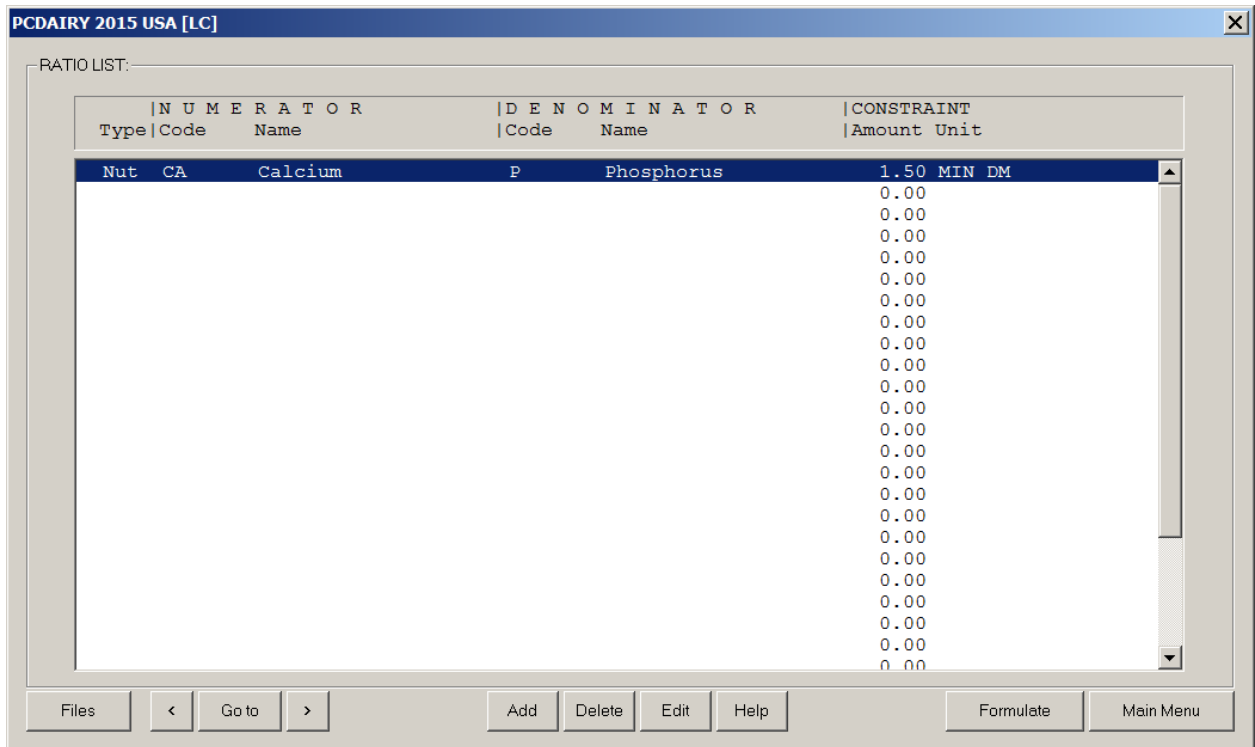
After you are done. Click the Next button. The Feed List Dialog box appears.

6. The Feed List dialog box:

LIB Code	FEED No.	Name	PRICE \$/ton	MINIMUM Amount Unit	MAXIMUM Amount Unit
STD	2	ALFALFA HAY, 28% ADF	120.00	0.0000	0.0000
STD	15	BARLEY, 46-48#/BU	150.00	0.0000	80.0000 %CDM
STD	21	BEEF PULP,MOL. DRIED	140.00	0.0000	40.0000 %CDM
STD	39	CORN GRAIN,GR OR RLD	150.00	0.0000	80.0000 %CDM
STD	42	CORN SILAGE, 30% DM	30.00	0.0000	0.0000
STD	50	COTTONSEED ML,41 SOL	200.00	0.0000	25.0000 %CDM
STD	58	DICALCIUM PHOSPHATE	500.00	0.0000	0.0000
STD	71	LIMESTONE, GROUND	100.00	0.0000	0.0000
STD	79	MOLASSES, CANE	90.00	0.0000	8.5000 %CDM
STD	108	SALT	110.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000
	0		0.00	0.0000	0.0000

You can add, edit, or delete feeds. You can specify feed price and assign a min or max amount on a feed. You can also edit the nutrient analysis of a feed. These changes remain local to this ration file and will not reflect back to feed libraries. After you are done, click the Next button. The Group Constraints dialog box appears.

8. The Ratio Constraints dialog box:



You can specify a min or max to the ratio of any two nutrients, or any two feeds, or any two feed groups.

When you are done click the Formulate button. The program will enter the formulation mode and will formulate the ration and will show the output dialog box.

9. The Output Screen

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OUTPUT

California Dairy Cattle Ranch
One Shields Avenue, Davis, CA 95616
Phone: (530) 752-1278 FAX: (530) 752-0175 http://animalscience.ucdavis.edu

R A T I O N C O M P O S I T I O N
ROUGHAGES AND CONCENTRATES

ROUGHAGES in the ration	AS FED BASIS:		DRY MATTER BASIS:		---Constraints---			
	lb/day	%	lb/day	%	As fed		100% DM	
					-lb/day-		-%Rough-	
					min	max	min	max
CORN SILAGE, 30% DM	44.424	83.657	13.327	63.049				
ALFALFA HAY, 28% ADF	8.679	16.343	7.811	36.951				
Group total.....	53.103		21.138					

CONCENTRATES in the ration	AS FED BASIS:		DRY MATTER BASIS:		---Constraints---			
	lb/day	%	lb/day	%	As fed		100% DM	
					-lb/day-		-%Conc.-	
					min	max	min	max
BEET PULP, MOL. DRIED	11.920	37.563	10.966	38.917				40.0
BARLEY, 46-48#/BU	10.425	32.852	9.174	32.557				80.0
COTTONSEED ML, 41 SOL	6.096	19.211	5.547	19.687				25.0
MOLASSES, CANE	3.194	10.064	2.395	8.500				8.5
DICALCIUM PHOSPHATE	0.094	0.295	0.091	0.322				
SALT	0.005	0.015	0.005	0.017				
Group total.....	31.732		28.178					

Files < Goto > Combine DM Basis Feed Group Help Input Main Menu

By clicking the "Go to" button you can view the following screens:

OUTPUT: GO TO

Choose an option and then click the OK button:

Go to: **Concentrates/Roughages, Methane Emission**

- Concentrates/Roughages, Methane Emission
- Ration Composition
- Price Ranges / Feeds Not Used
- Nutrient Analysis
- Energy & Protein Analysis of Feeds
- Vitamin & Proximate Analysis of Feeds
- Major Mineral Analysis of Feeds
- Trace Mineral Analysis of Feeds
- User Nutrient Analysis of Feeds

Cancel OK

You can also view the results for all feeds or for a specific feed group on 100% DM basis or on AS Fed basis.

You can also print the out put or go back to the input screens and modify some entries and re-formulate the ration.