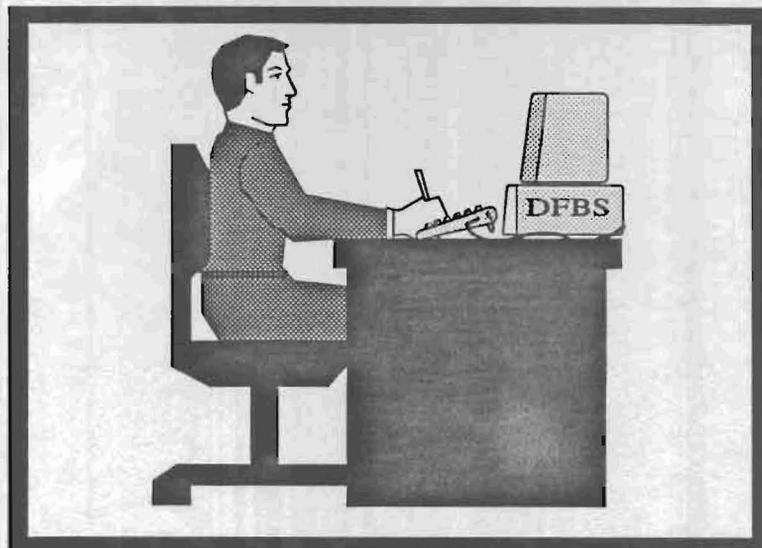


MICRO DFBS



**A Guide to Processing
Dairy Farm Business Summaries
in County and Regional Extension Offices
for**

Micro DFBS Version 3.0

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INTRODUCTION

This publication is a guide to using the Microcomputer Dairy Farm Business Summary (Micro DFBS) computer program for analyzing the financial and production performance of individual dairy farm businesses. County Cooperative Extension agents and regional specialists are the intended audience, however, college faculty in other states may also find this publication of value. Farm business summary and analysis projects have long been a basic part of the agricultural Extension program in New York State. Records submitted by New York State dairy farmers provide the basis for many Extension educational programs and the data for applied research studies and classroom teaching.

Extension offices have the capability to strengthen their dairy farm business analysis activities by calculating and printing the individual farm summaries for immediate use by the agent and farmer, at any time. After entry in the county, individual farm data are sent to the Department of Agricultural, Resource, and Managerial Economics at Cornell University for additional review prior to calculation of county, regional, and State summaries.

HARDWARE REQUIREMENTS

Version 3.0 of the Micro DFBS program will run on IBM and IBM-compatible computers with a minimum of 256K of random-access memory (RAM). The DOS 2.0 or higher operating system is needed. Either two floppy disk drives or one floppy and one hard disk are needed.

Printers vary from one Extension office to another, and an effort is made to make the program work with as many printers as possible. Most printers capable of printing in pica type (10 characters per inch, 66 lines per page) should work.

Each farm summary printout is 12 pages long and you typically need three copies -- one for the farmer, one for your county or regional Extension office file, and one to send to Cornell for the regional and State summaries. Triple-copy paper will allow you to print all three copies at once if a dot-matrix printer is used.

VERSION 3.0 REVISIONS

Revisions made for Micro DFBS Version 3.0 include the following:

- 1) The constant used for the value of unpaid family labor and value of operator's labor is \$1,400 per month. This is based on the wage rate for all hired farm workers reported by the New York Agricultural Statistics Service.
- 2) The discount rates used in calculation of lease assets and liabilities are 8.5 percent at the beginning of year, and 7.75 percent at the end of the year. These are the typical interest rates paid by farm borrowers during the year.
- 3) A place to indicate whether or not the farm uses rotational grazing has been added in Screen 8. Also, crop expenses for pasture can be entered in Screen 14. These costs are calculated per tillable pasture acre and per total pasture acre and are printed with the cropping program analysis on page 9 of the output.

- 4) Additional spaces have been added to Screen 11 to allow for more entries of long term, intermediate, and short term debt. A place to enter the interest rate has also been added to Screen 11. This will be used to calculate the current portion of long term and intermediate term debt which is printed on the balance sheet on page 4 of the output.
- 5) In the dairy analysis on page 10 of the output, the cost of producing milk excluding unpaid family and operator's resources is now called "Purchased inputs cost of producing milk". This year, this factor excludes the cost of unpaid family labor. Last year it was included.
- 6) Labor and machinery costs on page 11 of the output are calculated on a per hundredweight milk basis instead of per tillable acre.
- 7) A place to enter the information necessary for calculation of deferred tax liability has been added to Screen 14. For those farms that are able to complete this section, a balance sheet including deferred taxes can be printed.
- 8) The Annual Cash Flow Statement on page 12 of the output now includes receipts and expenses on a per hundredweight milk basis.

USING MICRO DFBS

This tutorial section will serve as a learning guide and "hands-on" exercise in using Micro DFBS. The user becomes familiar with the operation of Micro DFBS by:

- a) making backup copies of diskettes
- b) starting the program
- c) typing information from a sample input form
- d) calculating and printing a summary
- e) preparing a diskette for shipment to Cornell

This tutorial assumes that a suitable microcomputer and printer are available and the user knows how to operate them. Microcomputer hardware requirements were explained above. If you are not familiar with the operation of your microcomputer and operating system, refer to its DOS manual.

I. Make backup copy of diskette.

You should have received a program diskette that also has sample data on it. Make a copy of this diskette, put the original diskette in a safe place, and use the copy. Use the DOS "copy" command. For example, on a computer with two floppy disk drives, after booting the computer, place the diskette to be copied in Drive A and a blank formatted diskette in Drive B and type:

```
copy a:*. * b: ↵ (enter/return key)
```

The names of the files being copied will appear on the screen as they are copied. The sample farm has three data files on the diskette:

```
46004.93 is the current year's data file,  
46004.920 is the 1992 output file, and  
46004.910 is the 1991 output file.
```

The 1992 and 1991 output data files are required for use by the current year data file (<farm no.>.93) in order to print a "Progress of the Farm Business" table on page 1 of the output. The 1993 data file contains data from the 1992 data file, such as beginning of year inventory values and beginning of year assets and liabilities.

II. Start the program.

Important - if your computer does not have an internal calendar, be sure to always enter the correct date when you start the computer to run Micro DFBS. Micro DFBS prints this date on the summary printout. It also assumes that the summary is for the previous year. For example, if you enter 1-1-94, Micro DFBS will use the <farm no.>.93 data file and the printout will show:

1993 Dairy Farm Business Summary

If you don't enter the date and instead leave it as the default of 1-01-1980, a <farm no.>.79 data file could be created and the printout will show:

1979 Dairy Farm Business Summary

which is probably not what you wanted.

Follow A or B depending on the hardware system you are using.¹

A. Two floppy disk drives (IBM PC or compatible):

Insert your DOS diskette in drive A and turn on the computer and printer. Wait until DOS is loaded. Type the date and time, if asked. You should see a prompt A>. This means that drive A is the default drive. If you were not prompted for the date as the computer was booting, at the A> prompt type:

```
date 1-1-94 ↵
```

Take out the DOS diskette. Insert the Micro DFBS program diskette in drive A and a blank formatted data diskette in drive B.

Copy the sample data files from the program diskette in drive A to the blank formatted disk in drive B:

```
copy a:46004.* b: ↵
```

Skip to C on page 5.

B. One floppy and one hard drive (IBM or compatible):

If you have previously loaded DOS onto the hard disk², turn on the computer and printer with the floppy drive empty. Wait until DOS is loaded from the hard disk. Type the date and time, if asked. If you were not prompted for the date as the computer was booting

¹If you have not already done so, be sure to make a backup copy of your program diskette.

²If you have not previously loaded DOS onto the hard disk, follow the procedure in A, and when you see the prompt A>, type:

```
C: ↵
```

(The symbol ↵ stands for a carriage return.)

Upper- or lower-case letters will do. This makes drive C the default drive.

and the computer does not have an internal calendar, at the C> prompt type:

```
date 1-1-94 ↵
```

If you will be storing data on the hard disk and/or operating the program from the hard disk, it is advisable to set up a separate directory on the hard disk for this purpose.³ Call the directory DFBS. First, check if the directory DFBS already exists. To check, type:

```
CD \DFBS ↵
```

If it does exist, you will see the prompt C> reappear. If it does not exist, you will see 'invalid directory', so set it up. To set up a directory named DFBS, from the prompt C>, type:

```
MD \DFBS ↵
```

Each time Micro DFBS is rerun on a one-floppy/one-hard disk system, the Micro DFBS directory must be accessed using the command:

```
CD \DFBS ↵
```

The program diskette contains sample data files which must be copied to your new Micro DFBS directory if you select to store data on the hard disk. Insert the program disk into drive A and copy the sample data files by typing:

```
COPY A:46004.* ↵
```

The C> prompt should reappear.

The Micro DFBS program may be run from the hard disk drive or from the floppy disk drive.

1. Operating the Micro DFBS program from the hard disk drive:

The Micro DFBS program diskette contains all the files necessary to run the Micro DFBS program. These files must be copied to your 'DFBS' directory to be able to run the program from the hard disk. If you are not already in the 'DFBS' directory, type 'CD \DFBS'. Insert the Micro DFBS program diskette into drive A and copy all the files to the hard disk by typing:

```
COPY A:*. * ↵
```

The names of the files being copied will appear on the screen as they are copied to the hard disk. The C> prompt should reappear after all the files are copied.

³If you are unfamiliar with the concept of a directory, refer to your DOS manual. Typing the command "prompt \$p\$g" or inserting this command in your autoexec.bat file will change your C> prompt to show which directory you are in, such as C:\DFBS>.

2. Operating the Micro DFBS program from the floppy disk drive:

Insert the Micro DFBS program diskette in drive A. Type:

A:↵

This makes the A drive the default drive. With the Micro DFBS program operating from the A drive, you will need to store the data files on the C drive as there is insufficient space on the program diskette. The "Install" program described in Section III will enable you to specify the C drive for data storage.

Note: The MD \DFBS and COPY commands need to be used only once -- the directory and files will remain after the session is ended and can be used in future sessions.

C. You are now ready to run Micro DFBS. Type:

DFBS ↵

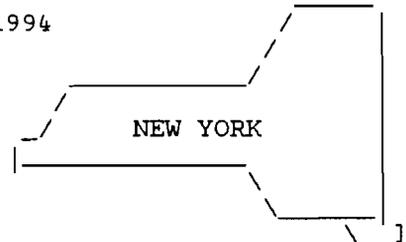
You should see the main menu.

MAIN MENU

CORNELL COOPERATIVE EXTENSION

DATE: 1/18/1994

Prepared by
DEPARTMENT OF
AGRICULTURAL ECONOMICS
CORNELL UNIVERSITY



Dairy Farm Business Summary Version 3.0 (C) 1993

<input type="checkbox"/> Create/Update/Display Record	<input type="checkbox"/> Calculate and Print Farm Summary
<input type="checkbox"/> Verify Record	<input type="checkbox"/> Run Install Program
<input type="checkbox"/> Delete Record	<input type="checkbox"/> Help
<input type="checkbox"/> Quit	

The main menu shows the options available in DFBS. A set of brackets [] appears to the left of each named option. An underline character [_] is used as the cursor and marks the first option 'Create/Update/Display Record'. Practice moving the cursor using ↑ or ↓ arrow keys. What happens when you use the → and ← arrow keys?

III. Final startup instructions - the INSTALL program

An installation program must be run before using the Micro DFBS Program in order to specify which disk drive the **data files** are to be stored on. Use the cursor keys (↑ or ↓) to select "Run Install Program".

You should get the message:

DAIRY FARM BUSINESS SUMMARY INSTALLATION PROGRAM

DISK DRIVE SELECTION-

Valid drives are A-G

Present Drive is a:

ENTER NEW DRIVE LETTER OR PRESS RETURN TO OK EXISTING DRIVE

Enter a drive letter, in most cases A, B, or C or press return if the correct drive is already specified. For the two floppy disk drive system, type B J. Once you set the drive, it will remain at that setting until you change it by selecting "install" again.

You should then see the following menu:

CURRENT DIRECTORY IS \

CHOOSE OPTION:

- 1: MAKE A DIRECTORY
- 2: REMOVE A DIRECTORY
- 3: SET NEW PATH TO DIRECTORY
- 0: CONTINUE INSTALLATION

OPTION:

This menu allows the user to create and select the path for the storage of data in the program. The current path will display at the top of the menu. If the path displayed is correct then choose 0 (zero) to continue installation and save the current path.

If the path displayed needs to be changed or a new subdirectory needs to be created, then select those items from the menu. For example, to create a subdirectory on the hard disk called DFBSDATA (within the directory c:\dfbs) you select 1 from the menu. The program will then prompt you for the name of the new directory. To specify the name you would type the complete path name to the new directory, e.g., C:\DFBS\DFBSDATA and press the return key. The program will now create the desired subdirectory. After the new directory is created the menu will again appear, the new path should be displayed at the top of the screen. If the path is not correct you can use option number 3 to set the proper path.

If you will be storing the data on a floppy diskette, it is not necessary to create a directory on the diskette. Choose option 3 from the menu and when prompted for the directory name simply type ↵ (return/enter).

When you are satisfied with your selection, type 0 to continue installation.

FOR DOS 1.XX USERS:

The path command is not implemented in this version of DOS and you will get an error message if you try to specify a path or create a subdirectory. To properly install the program for this version enter the desired disk drive and then select option 3 from the menu and, when prompted for a path, press return. There should be either a \ or nothing displayed at the top of the screen where the path is normally displayed. Once this is done type 0 to continue installation.

FAILURE TO PROPERLY SET THE PATH WILL RESULT IN THE DATA BEING DIRECTED TO THE WRONG SUBDIRECTORY OR IN THE PROGRAM ABORTING WITH AN "I/O ERROR 01" ERROR MESSAGE DISPLAYED.

The following message will appear on the screen:

PRINT PRELIMINARY SUMMARIES? [Y/N]

Typing "Y" for yes will print the word "Preliminary" on page 1 of the Dairy Farm Business Summary printout. Typing "N" for no does not print "Preliminary" and the printout is then considered in final form. This setting will remain until this part of the install program is accessed again. County Extension offices are encouraged to leave the setting at "Preliminary". The final versions of the summary are printed at Cornell.

IV. Enter the input data.⁴

The Create/Update/Display Record option on the main menu is used to enter input data for a new farm or to change or display a previously entered farm record. Use the cursor keys (↑ or ↓) to select this option. Type:

↓

to select the 'Create/Update/Display Record' option.

You will see a prompt to enter a farm number. The farm number assigned will be made up of your 2-digit county number, followed by a 3-digit number identifying the individual farm.

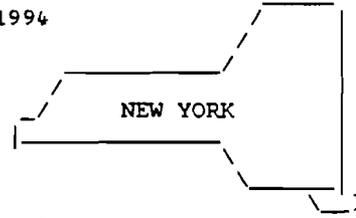
⁴See Appendix A for guidelines to completing the Dairy Farm Business Summary check-in form.

MAIN MENU WITH FARM NUMBER PROMPT

CORNELL COOPERATIVE EXTENSION.

DATE: 1/18/1994

Prepared by
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CORNELL UNIVERSITY



Dairy Farm Business Summary Version 3.0 (C) 1993

- | | |
|-------------------------------------------------------|-----------------------------------------------------------|
| <input type="checkbox"/> Create/Update/Display Record | <input type="checkbox"/> Calculate and Print Farm Summary |
| <input type="checkbox"/> Verify Record | <input type="checkbox"/> Run Install Program |
| <input type="checkbox"/> Delete Record | <input type="checkbox"/> Help |
| <input type="checkbox"/> Quit | |

ENTER FARM NO OR PRESS ENTER TO RETURN TO MENU

Important - select farm numbers carefully following the recommended procedure. You must assign the same number to the same farm each year and assign a new number to a new farm. This is essential for the first page of the summary, "Progress of The Farm Business", and page 8, "Repayment Analysis", to work properly.

If you make an error entering data and you notice it before typing the ↵ (return/enter) key, you can correct the error by using the backspace key, delete key or the ← key to erase the error, and type the correct entry. If you type ↵ (return/enter) before noticing the error, you can move back to the incorrect entry by using the ↑ key, and then retype the number.

The top of the first page of the sample farm check-in form is shown below. The sample farm number is 46004 and the number is written in the space labelled "Processing number".

CORNELL COOPERATIVE EXTENSION
DAIRY FARM BUSINESS SUMMARY
DATA CHECK-IN FORM

Name <u>Danielle Dairy person</u> Farm Name _____ Address <u>R.D. 1, Box 23</u> <u>Hillytown NY 13052</u> Phone no. <u>607-255-8429</u>	County <u>Suffolk</u> Proc. number <u>46004</u> Year 1993 <input checked="" type="checkbox"/> complete, <input checked="" type="checkbox"/> entered, <input type="checkbox"/> ready Update Screens: _____
-----------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

SCREEN 1.

Type the farm number:

46004 ↵

Micro DFBS will find the file 46004.93. This file already contains data from the previous year, such as beginning of year inventory values and beginning of year assets and liabilities. The program continues on to Screen 1.

If the data you are entering is for a new cooperator you will see the following message after you enter the newly assigned farm number:⁵

Data files missing, create new ones (Y/N)

Enter y ↵

The program will continue on to Screen 1. Screen 1 contains the farm name, address, and phone number from the boxed-in area at the top of page 1 of the check-in form. Screen numbers 2 through 14 correspond to the other 13 boxed-in areas of the check-in form.

Screen 1 should look like Screen 1 on the next page. The farm number, state, and county are already inserted for you and the cursor is at the operator's name.

Enter the farmer's name. There is no farm name, so enter ↵ (return/enter) to move to the address line and type the rest of the farm information, (use the sample farm information from above).

⁵Assign farm numbers for new cooperators from the list of available farm numbers provided by Cornell.

FARM INFORMATION

Farm No. 46004	Verified [N]
Operator's Name .	
Farm Name	
Address	
City	
State	NY
Zip	-
County	SUFFOLK
Phone	() -
Regular []	Irregular []

At the bottom of the screen, find the classifications "Regular" and "Irregular". The regular and irregular classifications indicate the accuracy and completeness of the information for determination of whether or not this farm will be included in the county, regional, and state summaries. Regular is included; irregular is not. Select the appropriate classification by entering an "x" in the space between the brackets.

The "Verified [N]" notation in the upper right corner of Screen 1 indicates that the data has not yet been verified. The "N" will change to a "Y" after the verification has been completed.

The entering of farm information in Screen 1 has now been completed. It is possible to change data in the screen at this point. For example, use the ↑ or ↓ keys to move the cursor to "Farm Name" and type:

Golden Guernsey Farm ↓ (return/enter)

There are three ways to get out of Screen 1 and move to the next screen:

- 1) ↓ (return/enter). Keep pressing return until the cursor goes off the screen and you get the message below.
- 2) ↓ key. Keep pressing the down arrow key until you get the message below.
- 3) [Esc] key. The escape key only needs to be pressed once to get the message below. Note: Use this key with caution. On screens with totals or computed values use ↓ or ↓ to move through the entire screen so values are recalculated.

[PgDn] or [RETURN] - next, [PgUp] - previous screen, [Esc] to exit, or # of Screen.

The above message or command line allows you four courses of action:

- 1) [PgDn] or [RETURN] will take you to the next screen.
- 2) [PgUp] will take you to the previous screen.

- 3) [Esc] will exit the screen and take you back to the main menu.
- 4) # of Screen, i.e., enter the number of any screen to move to that screen. It is not necessary to ↵ (Return/Enter) after entering the Screen #.

Screen #1

FARM INFORMATION

		Verified [N]
Farm No.	46004	
Operator's Name .	Danielle Dairyperson	
Farm Name	Golden Guernsey Farm	
Address	R D 1, Box 23	
City	Hillytown	
State	NY	
Zip	13052-1234	
County	SUFFOLK	
Phone	(607)255-8429	
	Regular []	Irregular [x]

Move to Screen 2 by typing:

↵ as many times as necessary.

You should see Screen 2.

Farm No.46004

Screen #2

MACHINERY AND EQUIPMENT INVENTORY AND DEPRECIATION

Machinery & Equipment Inventory Beginning	\$ 200000	End \$	0
Machinery & Equipment Purchased	+ \$ 0		
Noncash Machinery Transfer to Farm	+ \$ 0		
Machinery & Equipment Sold	- \$ 0		
1993 Tax Depreciation	- \$ 0		
Total Beginning Inventory After Changes		\$ 200000	
Machinery Appreciation (end less beginning after changes)		\$-200000	

Part of page 1 of Danielle Dairyperson's check-in sheet, the machinery inventory and depreciation information, is shown below. The arrows show where each item is typed into Screen 2 of Micro DFBS. Do not type commas

or spaces within or to the left of numbers. If there were previous year's data, the beginning of year inventory value will be displayed. If this value does not need to be revised, press \downarrow (return/enter) to move to the next item. If it needs to be changed, simply type the revised value over the existing one. Enter the data called for. Use \downarrow to move from one item to the next one below. The last two items are calculated by Micro DFBS. When you have entered all the data for Screen 2, advance to Screen 3 by typing:

[PgDn]

		SCREEN 2.
<u>MACHINERY & EQUIPMENT INVENTORY & DEPRECIATION</u> (do not include leased items)		
Beginning of Year Inventory	\$200,000	End of Year Inventory \$204,000
Machinery & Equipment Purchased	+ 26,000	
Noncash Mach. Transfer to Farm (e.g., gifts/inheritances)	+ 4,000	
Machinery & Equipment Sold	- 300	
1993 Tax Depreciation ²	- 24,000	
Total Beginning Inventory After Changes		\$205,700.
Machinery Appreciation (end less beginning after changes)		\$ -1,700.

²Exclude buildings and cattle from ACRS depreciation.

Farm No.46004

Screen #2

MACHINERY AND EQUIPMENT INVENTORY AND DEPRECIATION

Machinery & Equipment Inventory Beginning	\$ 200000	End \$ 204000
Machinery & Equipment Purchased	+ \$ 26000	
Noncash Machinery Transfer to Farm	+ \$ 4000	
Machinery & Equipment Sold	- \$ 300	
1993 Tax Depreciation	- \$ 24000	
Total Beginning Inventory After Changes		\$ 205700
Machinery Appreciation (end less beginning after changes)		\$ -1700

Screens 3 through 14 are handled in a similar way and, as with Screen 2, are designed to resemble the check-in form as closely as possible.

Now finish typing the farm information for Danielle Dairy person into Screens 3 through 14 using the data on the following pages. After Screen 14, you should be back to the main menu.

Screen 3, Feed and Supply Inventory, has three columns, two of which are for data entry. The beginning and end year columns are entered and the beginning and end year totals and inventory change column are computed. The check-in form has additional columns in Screen 3 for quantities and \$ per unit; however, these are work spaces.⁶ If there were previous year's data, the beginning of year inventory values will be displayed. The order of data entry is across the rows.

The inventory change for grown feeds is calculated by subtracting the beginning year inventory value from the end year inventory value. This inventory change is then transferred automatically to Screen 12, the accrual receipts screen.

The inventory changes for purchased feeds and supplies are calculated by subtracting the end year inventory value from beginning year value for each item. These inventory change values are then transferred to Screen 13, the accrual expenses screen.

Use the cursor (↓) key or ↵ (return/enter) to skip zero entries.

FEED & SUPPLY INVENTORY	↓	↓	↓	SCREEN 3.
	↓	↓	↓	Inventory Change ¹
Total Grown Feeds	\$90,000		\$87,000	\$-3,000
PURCHASED FEEDS: (use p.11 definitions)				
Dairy grain & conc	x..... = \$ 2,000		x..... = \$ 2,600	-600
Dairy roughage	..... 3,050		..... 3,000	50
Nondairy feed	..... 0		..... 0	0
SUPPLIES:				
Machine: Parts	x..... = \$ 325		x..... = \$ 400	\$ -75
Fuel, oil, grease	..... 170		..... 150	20
Livestock: Semen	..... 1,000		..... 1,300	-300
Vet. supplies	..... 50		..... 45	5
Other supplies	..... 75		..... 75	0
Crops: Fertilizer	..... 150		..... 100	50
Seeds	..... 230		..... 125	105
Pesticides/Other	..... 170		..... 145	25
Land/Bldg./Fence:	..... 200		..... 225	-25
Other:.....	..... 500		..... 320	180
Total Feed & Supplies	\$97,920		\$95,485	

Farm No. 46004

FEED & SUPPLY INVENTORY

Screen #3

Feed & Supply Inventory	Beg-Year	End-Year	Inventory Change
Total Grown Feeds	\$ 90000	\$ 87000	\$ -3000
Purchased Feeds:			
Dairy Grain & Conc.	\$ 2000	\$ 2600	\$ -600
Dairy Roughage	\$ 3050	\$ 3000	\$ 50
Nondairy Feed	\$ 0	\$ 0	\$ 0
Supplies:			
Machine: Parts	\$ 325	\$ 400	\$ -75
Fuel, Oil, Grease	\$ 170	\$ 150	\$ 20
Livestock: Semen	\$ 1000	\$ 1300	\$ -300
Vet. Supplies	\$ 50	\$ 45	\$ 5
Other Supplies	\$ 75	\$ 75	\$ 0
Crops: Fertilizer	\$ 150	\$ 100	\$ 50
Seeds	\$ 230	\$ 125	\$ 105
Pesticides and Other	\$ 170	\$ 145	\$ 25
Land/Bldg./Fence:	\$ 200	\$ 225	\$ -25
Other:	\$ 500	\$ 320	\$ 180
Total Feed & Supplies	\$ 97920	\$ 95485	

⁶There are four kinds of spaces on the check-in form: for work space, _____ for data entry items, ----- for calculated values, and x____x for optional input.

Data entry in Screen 4, Livestock Inventory, starts with "leased dairy cows" then continues across the remaining rows. All totals are calculated. The "\$ per Head" columns are calculated after the "number of head" and "total value" entries are made for each row. If you prefer to enter "\$ per Head" values, type ↵ (return/enter) for "Total Value" and the cursor will move back to the "\$ per Head" column. Enter the value per head and press ↵ (return/enter) and the "Total Value" will be calculated. Once the "Total Value" has been calculated, the cursor will not return to the "\$ per Head" space.

If there were previous year's data, the beginning of year inventory values will be displayed.

<u>LIVESTOCK</u>		SCREEN 4.					
Number of leased/rented dairy cows at end of year <u>60</u>		December 31, 1993 Inventory Using:					
<u>Jan. 1, 1993 Inventory</u>		<u>1/1/93 Prices</u>		<u>12/31/93 Prices</u>			
	<u>\$ per</u>	<u>Total</u>		<u>\$ per</u>	<u>Total</u>	<u>\$ per</u>	<u>Total</u>
<u>No.</u>	<u>Head</u>	<u>Value</u>	<u>No.</u>	<u>Head</u>	<u>Value</u>	<u>Head</u>	<u>Value</u>
Dairy Cows:.....	<u>100</u>	<u>\$1000</u>	<u>\$100000</u>	<u>120</u>	<u>\$1000</u>	<u>\$120000</u>	<u>\$1100</u> <u>\$132000</u>
.....	-----	-----	-----	-----	-----	-----	-----
Total Dairy Cows	<u>100</u>		<u>\$100000</u>	<u>120</u>		<u>\$120000</u>	<u>\$132000</u>
Heifers:							
Bred Heifers	<u>30</u>	<u>\$850</u>	<u>\$25500</u>	<u>25</u>	<u>\$850</u>	<u>\$21250</u>	<u>\$900</u> <u>\$22500</u>
Open (6 mo. - bred)	<u>20</u>	<u>550</u>	<u>11000</u>	<u>21</u>	<u>550</u>	<u>11550</u>	<u>600</u> <u>12600</u>
Calves (< 6 mo.)	<u>50</u>	<u>450</u>	<u>22500</u>	<u>55</u>	<u>450</u>	<u>24750</u>	<u>450</u> <u>24750</u>
Total Heifers	<u>100</u>		<u>\$59000</u>	<u>101</u>		<u>\$57550</u>	<u>\$59850</u>
Bulls & Other Lvstk.:							
.....	<u>1</u>	<u>\$2500</u>	<u>\$2500</u>	<u>1</u>	<u>\$2500</u>	<u>\$2500</u>	<u>\$2600</u> <u>\$2600</u>
.....	-----	-----	-----	-----	-----	-----	-----
Total Bulls & Other Livestock	<u>1</u>		<u>\$2500</u>	<u>1</u>		<u>\$2500</u>	<u>\$2600</u>
Total Livestock	<u>201</u>		<u>\$161500</u>	<u>222</u>		<u>\$180050</u>	<u>\$194450</u>

Farm No.46004

LIVESTOCK INVENTORY

Screen #4

Leased Dairy Cows End Yr.: 60	End of Year Inventory Using:							
	Beginning of Year			Beg. Prices		End Prices		
	No.	\$ per Head	Total Value	No.	\$ per Head	Total Value	\$ per Head	Total Value
Dairy Cows:	100	\$ 1000	\$ 100000	120	\$ 1000	\$ 120000	\$ 1100	\$ 132000
	0	0	0	0	0	0	0	0
Total Dairy Cows	100		100000	120		120000		132000
Heifers: Bred	30	850	25500	25	850	21250	900	22500
Open	20	550	11000	21	550	11550	600	12600
Calves	50	450	22500	55	450	24750	450	24750
Total Heifers	100		59000	101		57550		59850
Bulls/Other Lvstk	1	2500	2500	1	2500	2500	2600	2600
	0	0	0	0	0	0	0	0
Total Bulls & Other Livestock	1		2500	1		2500		2600
TOTAL LIVESTOCK	201		161500	222		180050		194450

The data for Screen 5, Real Estate Inventory, is entered in the following order: beginning year market value, end year market value, new land, new buildings, lost capital, nonfarm noncash transfer, depreciation, and real estate sold (total sale price, sale expenses, and note/mortgage held by seller). All remaining items are calculated.

If there were previous year's data, the beginning of year inventory value will be displayed. It may be revised, if necessary, by typing the new value over the existing one.

<u>REAL ESTATE INVENTORY BALANCE</u>		SCREEN 5.
Land & Building Market Value:	Beginning \$ <u>400,000</u>	End \$ <u>405,000</u>
New Real Estate:		
Purchased: \$ <u>1,500</u> + \$ <u>9,900</u> - \$ <u>500</u> = +\$ <u>10,900</u>	land	bldgs./land imp. lost capital value added
Noncash Real Estate Transfer to Farm (e.g. gifts/inherit.)	+ <u>1,450</u>	
Depreciation: from 1993 income tax (Include bldgs. in pre-ACRS, ACRS, MACRS & ADS)	- <u>10,500</u>	
Real Estate Sold: Total sale price	\$ <u>6,600</u>	
Sale expenses	- <u>1,345</u>	
Net sale price	- <u>5,255</u>	
Note/mortgage held by seller	- <u>0</u>	
Net cash amt. rec'd. in 1993	= <u>5,255</u>	
Total Beginning Value After Changes		\$ <u>396,595</u>
Real Estate Appreciation		\$ <u>8,405</u>

Farm No. 46004

REAL ESTATE INVENTORY

Screen #5

Land and Building Market Value	Beginning \$ 400000	End \$ 405000
New Real Estate:		
Purchased: 1500 + 9900 - 500 =+ \$ 10900	land + bldgs./land imp.-lost cap.	= value added
Noncash Real Estate Transfer to Farm	+ \$ 1450	
Depreciation: From 1993 Income Tax	- \$ 10500	
Real estate sold:		
Total sale price	\$ 6600	
Sale expenses	- \$ 1345	
Net sale price	- \$ 5255	
Note/mort. held by seller	- \$ 0	
Net cash amt. rec'd	= \$ 5255	
Total Beginning Value After Changes		\$ 396595
Real Estate Appreciation:		\$ 8405

The order of data entry in Screen 6 is as follows: numbers of livestock, milk sold, butterfat test, production record, DHI#, milking system, business type, milking frequency, dairy housing, and financial recordkeeping system.

The value entered for other livestock is the number of total work units for the total number of other livestock. Table 1 on the next page shows estimated work units for various livestock and crops.

When entering the Average Milk Plant Test, the decimal must be typed.

Business description items in Screen 6 are entered by typing the number that appears in parentheses on the data check-in form and pressing ↵ (return/enter). The appropriate business description item will be displayed on the screen. Initially, all the items are set to 1, so there will be data on the screen when you call it up. The DHI number requires a 6-digit entry. The first 2 digits refer to the county, the last 4 digits are unique to the farm.

If there were previous year's data, the production record, milking system, business type, milking frequency, dairy housing, and financial recordkeeping system will have last year's data displayed. These items may be revised by typing the correct number.

LIVESTOCK & BUSINESS DESCRIPTION				SCREEN 6.
Livestock	Avg. No. For Year	Production Record	Milking System	Primary Business Type
Dairy cows (owned, rented & leased)	170	X (1) D.H.I. — (2) O.S.	— (1) Bucket & carry — (2) Dumping station	— (1) Single prop. X (2) Partnership
Heifers (dairy)	101	DHI# 21461234	— (3) Pipeline	— (3) Corporation
Bulls	1	— (3) Other	X (4) Herringbone par.	
Other: (type) (# head)	[] w.u. ¹	— (4) None	— (5) Other parlor	Primary Financial Recordkeeping System
Lbs. milk sold	2,500,000	Milking Frequency	Dairy Housing	— (1) ELFAC II
		X (2) 2x/day ² — (3) 3x/day ³	— (1) Stanchion/ Tie-Stall	— (2) Account Book
Avg. milk plant test	3.65% B.F.	— (3) Other ⁴	X (2) Freestall — (3) Combination	— (3) Agrifax Mail-in X (4) On-Farm Computer — (5) Other

Farm No. 46004

Screen #6

LIVESTOCK and BUSINESS DESCRIPTION

Livestock	Average No. For Year	Production Record	Milking System	Primary Business Type
Dairy Cows	170	1 D.H.I	4 HERRINGBONE PAR	2 PARTNERSHIP
Heifers(dairy)	101			
Bulls	1	D.H.I # 21461234		
Other:	0 w.u.			
Milk Production		Milking Frequency	Dairy Housing	Financial Recordkeeping System
milk sold (lb)	2500000	2 3X/DAY	2 FREESTALL	4 ON FARM COMPUTER
Average Milk Plant Test	3.65% B.F.			

Table 1. Work Units For Livestock and Crops

	Work units per head or per acre
<u>Livestock</u>	
Beef cows	2
Horses	2
Hens (production only)	0.04
Egg processing (per dozen)	0.002
Pullets raised	0.004
Broilers raised	0.003
Brood sows	3
Hogs raised	0.15
Ewes	0.5
<u>Crops</u>	
Barley	0.6
Dry beans	1.5
Potatoes	6
Cabbage	9
Snap beans for processing	1
Sweet corn	1
Onions	12
Apples - growing	4
Apples - harvest - per bushel	0.02
Work off farm, days	1
----- Primary Enterprises ⁷ -----	
<u>Livestock</u>	
Dairy cows	7
Heifers	2
Bulls	2
<u>Crops</u>	
Hay	0.6
Hay crop silage	0.8
Corn silage	0.8
Other forage harvested	0.6
Corn for grain	0.6
Oats	0.6
Wheat	0.6
Tillable pasture	0

⁷Work units for the primary enterprises are built into Micro DFBS and are not entered by the user. They are provided here for information only.

In Screen 7, the order of data entry for the labor and land inventory is across the rows. The total months of labor, worker equivalent, and land inventory totals are calculated. If there were previous year's data, the entire land inventory section will be displayed. If revisions need to be made in this data, simply type over the existing values. The "all acres" column and the "total" row will be recalculated.

SCREEN 7.				
<u>LABOR INVENTORY</u>	<u>Full-Time Months</u>	<u>Age</u>	<u>Years Educ.</u>	<u>Value of Management & Labor</u>
Operator - 1	<u>11</u>	<u>27</u>	<u>16</u>	\$ <u>10000</u>
- 2	<u>11</u>	<u>30</u>	<u>16</u>	\$ <u>15,000</u>
- 3	_____	_____	_____	\$ _____
- 4	_____	_____	_____	\$ _____
- 5	_____	_____	_____	\$ _____
- 6	_____	_____	_____	\$ _____
Family (paid employees)	_____	_____	_____	_____
Family (unpaid)	<u>12</u>	_____	_____	_____
Hired (regular & seasonal)	<u>22</u>	_____	_____	_____
Total	<u>56</u>	+ 12 = <u>4.67</u>		Worker Equivalent
<u>LAND INVENTORY</u>	<u>Acres Owned</u>	<u>Acres Rented</u>	<u>All Acres</u>	
Tillable land	<u>300</u>	<u>150</u>	<u>450</u>	
Pasture (nontillable)	<u>15</u>	<u>0</u>	<u>15</u>	
Woods & other nontillable	<u>10</u>	<u>0</u>	<u>10</u>	
Total	<u>325</u>	<u>150</u>	<u>475</u>	

Farm No. 46004

Screen #7

LABOR and LAND INVENTORY

<u>LABOR INVENTORY</u>	<u>Full-Time Months</u>	<u>Age</u>	<u>Years Educ.</u>	<u>Value of Mgmt & labor</u>
Operator - 1	11	27	16	\$10000
- 2	11	30	16	\$15000
- 3	0	0	0	\$ 0
- 4	0	0	0	\$ 0
- 5	0	0	0	\$ 0
- 6	0	0	0	\$ 0
Family (paid emp.)	0			
Family (unpaid emp.)	12			
Hired (reg & seasonal)	22			
Total	56	+ 12 =		4.67 Worker Equivalent
<u>LAND INVENTORY</u>	<u>Acres Owned</u>	<u>Acres Rented</u>	<u>All Acres</u>	
Tillable land	300	150	450	
Pasture (nontillable)	15	0	15	
Woods & other nontillable	10	0	10	
Total	325	150	475	

Screen 8 is Tillable Land Use. When entering the data in the dry matter coefficient column, the decimal must be typed. The entry for total production of "Other Crops" is in number of work units (see Table 1 on page 17). If the farm uses rotational grazing, type an "X" in the box next to tillable pasture acres. The order of data entry is across the rows. Total Tillable Acres and the Total Tons Dry Matter column are the calculated values.

				SCREEN 8.
TILLABLE LAND USE	Acres (1st cut only)	Total Production (all cuttings)	Dry Matter Coeffi- cient ⁶	Total Tons Dry Matter
Hay Crop (1st cut acres only)	140	XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX XXXXXXXXXXXXX	XXXXXXXXXXXXX XXXXXXXXXXXXX
Hay		275 tons	.90	248
Hay crop silage		691 tons	.35	242
Corn silage	75	1250 tons	.40	500
Other forage harvested		tons		
Corn for grain ⁵	100	11080 dry sh. bu.	Tot. tn DM	990
Oats	15	900 dry bu.		
Wheat	15	750 dry bu.		
Other:.....		1 w.u. ¹		
Tillable pasture	105	[X] Check if Rotational Grazing at least 3 months of year, changing paddock at least every 3 days.		
Idle tillable acres				
Total tillable acres	450			

Farm No. 46004

Screen #8

TILLABLE LAND USE

	Acres (1st cut)	Total Production (all cuttings)	Dry Matter Coefficient	Total Tons Dry Matter
Hay Crop	140			
Hay		275 tons	0.90	248
Hay Crop Silage		691 tons	0.35	242
Corn Silage	75	1250 tons	0.40	500
Other Forage	0	0 tons	0.00	0
Corn for Grain	100	11080 bu.	Total Tons D.M.:	990
Oats	15	900 bu.		
Wheat	15	750 bu.		
Other	0	0 w.u.		
Tillable Pasture	105	[x] Type 'x' if rotational grazing at least 3 months of year, changing paddock at least every 3 days		
Idle Till. Acres	0			
Total Till. Acres	450			

Screen 9 is the Asset portion of the Farm Family Financial Situation. The first items, beginning and end year total farm inventories, are calculated from data entered in earlier screens and displayed here. The order of data entry is across the rows. The calculated values are Total Farm Assets, Total Nonfarm Assets, and Total Assets. If there were previous year's data, the entire beginning year column will be displayed.

SCREEN 9.		
	<u>ASSETS</u>	
	<u>January 1, 1993¹</u>	<u>December 31, 1993</u>
Total Farm Inventory ²	\$ 859,420	\$ 898,935
Other Farm Assets:		
Farm cash, checking, & savings	<u>3,000</u>	<u>4,500</u>
Accounts receivable ³	<u>22,840</u>	<u>35,000</u>
Farm Credit stock	<u>2,500</u>	<u>2,500</u>
Other stock & certificates	<u>25</u>	<u>25</u>
Prepaid expenses ⁴	x <u>3,570</u> x	x <u>4,845</u> x
Total Farm Assets	\$ <u>891,355</u>	\$ <u>945,805</u>
Nonfarm Assets: ⁵		
Personal cash, checking & savings	<u>10,000</u>	<u>9,500</u>
Cash value life insurance	<u>5,400</u>	<u>5,400</u>
Nonfarm real estate	<u>8,650</u>	<u>8,800</u>
Personal share auto	<u>12,546</u>	<u>11,257</u>
Stock & bonds	<u>3,000</u>	<u>3,000</u>
Household furnishings	<u>8,570</u>	<u>8,640</u>
Other (include mortgages & notes)	<u>0</u>	<u>0</u>
Total Nonfarm Assets	\$ <u>48,166</u>	\$ <u>46,597</u>
TOTAL ASSETS (not including leases)	\$ <u>939,521</u>	\$ <u>992,402</u>

Farm No. 46004

Screen #9

FARM FAMILY FINANCIAL SITUATION--ASSETS

	January 1, 1993	December 31, 1993
Total Farm Inventory	\$ 859420	\$ 898935
Other Assets:		
Farm Cash, Check/Saving	3000	4500
Accounts Receivable	22840	35000
Farm Credit Stock	2500	2500
Other Stock and Cert.	25	25
Prepaid Expenses	3570	4845
Total Farm Assets:	\$ 891355	\$ 945805
Nonfarm Assets:		
Personal Cash, Check/Saving	\$ 10000	\$ 9500
Cash Value Life Insurance	5400	5400
Nonfarm Real Estate	8650	8800
Personal Share Auto	12546	11257
Stocks & Bonds	3000	3000
Household Furnishings	8570	8640
Other	0	0
Total Nonfarm Assets	\$ 48166	\$ 46597
TOTAL ASSETS	\$ 939521	\$ 992402

Financial leases are entered in Screen 10. The columns titled "amount of each payment", "no. of payments in 1993", "no. of payments/full year", and "no. of payments remaining" from the data check-in form are entered on Screen 10. The total 1993 expense column is calculated. The order of data entry is across rows.

Leased item	Amount of each payment	No. of payments in 1993	Total 1993 expense	SCREEN 10.	
				No. of payments/full year	No. of payments remaining
Cattle:.....	\$ 100	12	\$ 1200	12	6
.....	_____	_____	_____	_____	_____
.....	_____	_____	_____	_____	_____
		Total	\$ 1200 ¹		
Equipment:...Tractor.....	\$ 500	12	\$ 6000	12	2
.....	_____	_____	_____	_____	_____
.....	_____	_____	_____	_____	_____
		Total	\$ 6000 ²		
Structures:...Bunkers.....	\$ 875	12	\$ 10500	12	4
.....	_____	_____	_____	_____	_____
.....	_____	_____	_____	_____	_____
		Total	\$ 10500 ³		

¹Enter under "Cattle leases" on Screen 13, page 13.

²Enter under "Machine hire, rent, & lease" on Screen 13, page 13.

³Enter under "Real Estate rent/lease" on Screen 13, page 13.

Farm No.46004

FINANCIAL LEASES

Screen #10

Leased Item	Amount of Each Pymt	No. of Payments in 1993	Total 1993 Expense	No. of Payments/ Full Year	No. of Payments Remaining
Cattle	\$ 100	12	\$ 1200	12	6
	\$ 0	0	\$ 0	0	0
	\$ 0	0	\$ 0	0	0
		Total	\$ 1200		
Equipment	\$ 500	12	\$ 6000	12	2
	\$ 0	0	\$ 0	0	0
	\$ 0	0	\$ 0	0	0
		Total	\$ 6000		
Structures	\$ 875	12	\$ 10500	12	4
	\$ 0	0	\$ 0	0	0
	\$ 0	0	\$ 0	0	0
		Total	\$ 10500		

Screen 11, Liabilities and Planned Debt Payment Schedule, is divided into two screens (Screen 11 and Screen 11a). Screen 11 contains the Long Term and Intermediate Liabilities and Debt Payments. Screen 11a contains the Short Term, Operating Debt, Accounts Payable, Advanced Government Receipts, and Nonfarm Liabilities and Debt Payments. To move from Screen 11 to Screen 11a, press the [PgDn] key. To get back to Screen 11 from Screen 11a, press the [PgUp] key. (Will abort if PgUp PgDn too many times!)

The first column, the creditor description, is limited to 12 characters of input. You may abbreviate and use upper or lower case letters, however you wish; the description will be printed on the output just as it is entered here.

FARM FAMILY FINANCIAL SITUATION

SCREEN 11.

LIABILITIES ¹				DEBT PAYMENTS					
Creditor (the first 12 characters will be used as input.)	Amount		Amount of New Bor- rowings	Amt. of Debt Refin- anced ²	Actual 1993 Pymts		Beg. 1994 Int. Rate	Planned 1994	
	Jan. 1, 1993	Dec. 31, 1993			Princi- pal	Interest		Amt. of Pymts.	Per Year
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(%)	(\$)	(no.)
Long Term Debt (≥10yrs.)									
FLB	110,000	111,000	x 4600 x		3600	17,500	10	1700	12
Real Estate	87000	84000	x x		3000	12,000	8	1000	12
			x x						
			x x						
			x x						
Intermediate Term Debt (>1yr., <10yrs.)									
PCA	79000	95000	x x		29500	11,000	9	3300	12
First Bank	73400	71300	x x		3760	7070	8.5	1873	6
John Deere	46000	44000	x x		11200		10.5	933	12
			x x						
			x x						
			x x						
			x x						
			x x						
			x x						

FARM FAMILY FINANCIAL SITUATION (continued)

SCREEN 11. (continued)

LIABILITIES ¹				DEBT PAYMENTS					
Creditor (the first 12 characters will be used as input.)	Amount		Amount of New Bor- rowings	Amt. of Debt Refin- anced ²	Actual 1993 Pymts		Beg. 1994 Int. Rate	Planned 1994	
	Jan. 1, 1993	Dec. 31, 1993			Princi- pal	Interest		Amt. of Pymts.	Per Year
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(%)	(\$)	(no.)
Farm Credit Stock	2,500	2,500							
Short Term Debt (1 year or less) (borrowed to purchase capital items)									
PCA	27,500	30,000	x 30,000 x		27,500		11	208	12
			x x						
			x x						
Operating Debt (borrowed to buy items entered as expenses in Screen 13)								net reduction planned in: oper. debt	
John Deere	2,500					2,500			
Accounts Payable ³	3,800	15,050						accounts payable:	
Advanced Gov't Rec. ⁴	550	550							
Total Farm Liab/Pymts	\$432,250	\$443,400	\$.....	\$...0...	\$78,560	\$50,070		Total Nonfarm Payments	\$1,000
Nonfarm Liab/Pymts ⁵	\$ 5,000	\$ 4,000	\$x.....	x	\$ 1,000	\$ 100			
TOTAL LIAB/PYMTS (not including leases)	\$437,250	\$447,400	\$.....		\$79,560	\$50,170			

When entering the interest rate planned for next year, you must type the decimal. The values entered in the "Amount of Payments" and "Payments Per Year" columns will be multiplied together to arrive at a total annual planned payment. The "Payments Per Year" column defaults to "12" since it is most likely the "Amount of Payments" column will contain the monthly payment amount. If the payments are not monthly, enter the appropriate number of payments.

The "Farm Credit Stock" values at the top of Screen 11a are displayed. These values were entered as assets in Screen 9. The order of data entry is across the rows. The calculated values are the rows for Total Farm Liabilities/Payments and Total Liabilities/Payments. If there were previous year's data, the creditor description and beginning year liability columns will be displayed.

Farm No.46004

LIABILITIES & PLANNED DEBT PAYMENT SCHEDULE

Screen #11

LIABILITIES:			Amount of new Borrow- ings	DEBT PAYMENTS:										
Amount		Jan. 1, 1993		Dec. 31, 1993	Actual 1993		Planned 1994							
						Principal	Int.	Int. Rate	Amt. of Pymts	Pymts / Yr				
*Long Term:.....														
FLB	\$	110000	\$	111000	\$	4600	\$	3600	\$	17500	10.00	\$	1700	12
Real Estate	\$	87000	\$	84000	\$	0	\$	3000	\$	12000	8.00	\$	1000	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
*Intermediate:.....														
PCA	\$	79000	\$	85000	\$	0	\$	29500	\$	11000	9.00	\$	3300	12
First Bank	\$	73400	\$	71300	\$	0	\$	3760	\$	7070	8.50	\$	1873	12
John Deere	\$	46000	\$	44000	\$	0	\$	11200	\$	0	10.50	\$	933	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12

PRESS [PgDn] OR [ESC] TO GO TO SCREEN 11A

<<<<<(SCREEN 11 CONTINUED)>>>>>

(PRESS [PgUp] TO GO TO SCREEN 11)

LIABILITIES:			Amount of new Borrow- ings	DEBT PAYMENTS:										
Jan. 1, 1993		Dec. 31, 1993		Actual 1993		Planned 1994								
				Principal	Int.	Int. Rate	Amt Of Pymts	Pymts /Yr						
FCB Stock	\$	2500	\$	2500										
*Short Term:.....														
PCA	\$	27500	\$	30000	\$	30000	\$	27500	\$	0	11.00	\$	208	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
	\$	0	\$	0	\$	0	\$	0	\$	0	0.00	\$	0	12
*Operating Debt:.....														
John Deere	\$	2500	\$	0				\$	2500			Net Reduction		
	\$	0	\$	0				\$	0			Planned:.....		
	\$	0	\$	0				\$	0			Oper. Debt	\$	0
*Accts. Pay.:	\$	3800	\$	15050				\$	0			Accts Pay	\$	0
*Adv Gov Rec.	\$	550	\$	550										
*Total Farm:	\$	432250	\$	443400				\$	78560	\$	50070			
*Nonfarm Liab	\$	5000	\$	4000	\$	0	\$	1000	\$	100		Total Nonfarm		
												Payments	\$	1000
TOTAL:	\$	437250	\$	447400				\$	79560	\$	50170			

Screen 12 is the Summary of Yearly Receipts and Changes in Inventory and Accounts Receivable. The pounds of milk sold will be displayed on the screen when it is first brought up. This value was entered earlier in Screen 6. The change in inventory values are also displayed. The dairy cattle change in inventory value is calculated from the dairy cow and heifer values entered in Screen 4. The other livestock change in inventory value is calculated from the bulls and other livestock values entered on Screen 4. The crops change in inventory value is calculated from the grown feeds inventory on Screen 3. The change in advanced government receipts is calculated from the liabilities entered in Screen 11.

There is work space to itemize other receipt items, only the total is entered. The order of data entry is across the rows. The calculated values include the change in inventory column, accrual receipts column, and the total accrual receipts row.

For any negative values in the Change in Accounts Receivable column, you must type the negative sign.

SUMMARY OF 1993 RECEIPTS AND CHANGES IN INVENTORY AND ACCOUNTS RECEIVABLE

Farm Receipts	Cash + Receipts	Change in Inventory ¹	Change in Accounts Receivable ²	SCREEN 12. Accrual Receipts
Milk <u>2,500,000</u> lbs.	\$ 308,500	XXXXXXXXXX	\$ 8,200	\$ 316,700
Dairy Cattle	17,450	\$ 18,550		36,000
Dairy Calves	4,300	XXXXXXXXXX		4,300
Other Livestock	600	-----		600
Crops	11,700	-3000	1,260	9,960
Government Receipts	9,300	----- ³		9,300
Custom Machine Work	670	XXXXXXXXXX	2,700	3,370
Gas Tax Refunds	1,500	XXXXXXXXXX		1,500
Other: \$.....				
..... \$.....				
..... \$.....				
Total Other		XXXXXXXXXX		-----
TOTAL	\$ 354,020	\$ 15,550	\$ 12,160	\$ 381,730
Sale of other stock & certificates (exclude Farm Credit stock)				\$
Nonfarm Receipts:				
Cash income (describe & itemize largest amounts:				
.....: \$.....;: \$.....) total = \$ 8,000				
Cash used in the business from nonfarm capital \$ 1,400				
Noncash capital transferred to farm business for cattle, crops, etc. (e.g. gifts/inheritances) [excluding machinery (enter Screen 2) & real estate (enter Screen 5)] \$ 4,850				

Farm No. 46004

Screen #12

SUMMARY OF YEARLY RECEIPTS & CHANGES IN INVENTORY & ACCOUNTS RECEIVABLE

Receipts	Cash Receipts +	Changes in Inventory +	Changes in Accts Rec. =	Accrual Receipts
Milk 2500000 lbs	\$ 308500		\$ 8200	\$ 316700
Dairy Cattle	\$ 17450	\$ 18550	\$ 0	\$ 36000
Dairy Calves	\$ 4300		\$ 0	\$ 4300
Other Livestock	\$ 600	\$ 0	\$ 0	\$ 600
Crops	\$ 11700	\$ -3000	\$ 1260	\$ 9960
Government Recpts	\$ 9300	\$ 0	\$ 0	\$ 9300
Cust Mach Work	\$ 670		\$ 2700	\$ 3370
Gas Tax Refunds	\$ 1500		\$ 0	\$ 1500
Other	\$ 0		\$ 0	\$ 0
TOTAL	\$ 354020	\$ 15550	\$ 12160	\$ 381730
Sale of Other Stock & Certificates (exclude Farm Credit Stock)				\$ 0
NONFARM RECEIPTS				
Cash Income				\$ 8000
Cash Used in Business from Nonfarm Capital				\$ 1400
Noncash Capital Transferred to Farm Business, Cattle & Crops				\$ 4850

Screen 13, Summary of Year's Expenses and Changes in Inventory or Prepaid Expenses and Accounts Payable, is divided in two screens (Screen 13 and Screen 13a). Screen 13 contains the hired labor, feed, machinery, and livestock expense categories. Screen 13a contains the crops, real estate, other, and nonfarm expense categories. To move from Screen 13 to Screen 13a, press the [Esc] key. To get back to Screen 13 from Screen 13a, press the [Esc] key, then type "13".

The change in inventory values in the "change in inventory or prepaid expenses" column are displayed when Screen 13 is first brought up. These values are calculated from the purchased feed and supply inventories entered in Screen 3. The order of data entry is across the rows. The calculated values are the changes in inventory, accrual expenses column, and the total accrual expenses row.

SUMMARY OF 1993 EXPENSES & CHANGES IN INVENTORY & ACCOUNTS PAYABLE

See page 11 for instructions.	Cash	Change in	Change in	SCREEN 13.
Farm Expenses	Amount paid	+ or Prepaid +	+ Change in	= Accrual
		Expenses ¹	Acct.Pay ²	Expenses
<u>Hired Labor</u>	\$ 42,800	\$x _____ x	\$ _____	\$ 42,800
<u>Feed (see Guideline 2 on page 11)</u>				
Dairy grain & concentrate	75,500	-600	7,200	82,100
Dairy roughage	2,350	50		2,400
Nondairy feed				
<u>Machinery</u>				
Machine hire, rent & lease	4,100	x -500 x	1,700	5,300
Machinery repairs & parts	29,200	-75		29,125
Auto expense (farm share)	1,200	x _____ x		1,200
Fuel, oil & grease	11,400	-20	100	11,520
<u>Livestock</u>				
Replacement livestock	500	x _____ x		500
Breeding	3,800	-300		3,500
Veterinary & medicine	8,350	-5	1,800	10,155
Milk marketing	6,800	x -500 x		6,300
Cattle lease/rent	200	x _____ x		200
Other livestock expense	4,000			4,000

<u>Crops</u>				
Fertilizer & lime	13,800	50 ³		13,850 ³
Seeds & plants	7,700	105 ³		7,805 ³
Spray, other crop expense	5,950	25 ³		5,975 ³
<u>Real Estate</u>				
Land, building, fence repair	3,500	-25		3,475
Taxes	6,300	x _____ x		6,300
Rent & lease	4,500	x -275 x		4,225
<u>Other</u>				
Insurance	3,400	x _____ x		3,400
Telephone (farm share)	1,200	x _____ x		1,200
Electricity (farm share)	10,050	x _____ x	450	10,500
Interest	50,070	x _____ x		50,070
Miscellaneous	4,300	-180		4,480
TOTAL OPERATING	\$ 300,970	\$ -1,840	\$ 11,250	\$ 310,380
Expansion livestock	\$ _____	x _____ x		\$ _____
Purchase of other stock & certificates (exclude Farm Credit stock)				\$ 400
<u>Nonfarm Cash Expenses</u>				
Personal withdrawals & family expenditures ⁴				\$ 28,605

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Screen #13

SUMMARY OF YEARS EXPENSES & CHANGES IN INVENTORY & ACCOUNTS PAYABLE

Expenses	Cash Amount Paid +	Change in Inv. or Prepd exp +	Change In Accts Payable +	Accrual = Expenses
Hired Labor	\$ 42800	\$ 0	\$ 0	\$ 42800
FEED				
Dairy Grain/Conc	\$ 75500	\$ -600	\$ 7200	\$ 82100
Dairy Roughage	\$ 2350	\$ 50	\$ 0	\$ 2400
Nondairy Feed	\$ 0	\$ 0	\$ 0	\$ 0
MACHINERY				
Mach Hire/Rent/Ls	\$ 4100	\$ -500	\$ 1700	\$ 5300
Mach repair/parts	\$ 29200	\$ -75	\$ 0	\$ 29125
Auto Expense	\$ 1200	\$ 0	\$ 0	\$ 1200
Fuel Oil & Grease	\$ 11400	\$ 20	\$ 100	\$ 11520
LIVESTOCK				
Replacement Lvstk	\$ 500	\$ 0	\$ 0	\$ 500
Breeding	\$ 3800	\$ -300	\$ 0	\$ 3500
Vet & Medicine	\$ 8350	\$ 5	\$ 1800	\$ 10155
Milk Marketing	\$ 6800	\$ -500	\$ 0	\$ 6300
Cattle Lease	\$ 200	\$ 0	\$ 0	\$ 200
Other Lvstk Exp	\$ 4000	\$ 0	\$ 0	\$ 4000

PRESS [ESC] TO GO TO SCREEN 13A

<<<<(SCREEN 13 CONTINUED)>>>> (PRESS [ESC] TO GO TO SCREEN 13)

Expenses	Cash Amount Paid +	Change in Inv. or Prepd exp +	Change In Accts Pay.	Accrual = Expenses
CROPS				
Fertilizer/Lime	\$ 13800	\$ 50	\$ 0	\$ 13850
Seeds & Plants	\$ 7700	\$ 105	\$ 0	\$ 7805
Spray/Other Exp	\$ 5950	\$ 25	\$ 0	\$ 5975
REAL ESTATE				
Land/Bldg Repair	\$ 3500	\$ -25	\$ 0	\$ 3475
Taxes	\$ 6300	\$ 0	\$ 0	\$ 6300
Rent/Lease	\$ 4500	\$ -275	\$ 0	\$ 4225
OTHER				
Insurance	\$ 3400	\$ 0	\$ 0	\$ 3400
Telephone	\$ 1200	\$ 0	\$ 0	\$ 1200
Electricity	\$ 10050	\$ 0	\$ 450	\$ 10500
Interest Paid	\$ 50070	\$ 0	\$ 0	\$ 50070
Miscellaneous	\$ 4300	\$ 180	\$ 0	\$ 4480
TOTAL	\$ 300970	\$ -1840	\$ 11250	\$ 310380
Expansion Lvstk.	\$ 0	\$ 0	\$ 0	\$ 0
Purchase of Other Stock & Certificates(exclude Farm Credit)				\$ 400
NONFARM CASH EXPENSES				
Personal Withdrawals & Family Expenditures				\$ 28605

The final screen, Screen 14, contains optional input. The first section is where the breakdown of crop expenses are entered. The total crop expense row at the bottom of the screen is displayed. These values were calculated from the crop expense data entered in Screen 13. The rows for hay crop, corn, and pasture require data entered in them. The all other crops row is calculated as the residual so the column totals equal the crop expenses in Screen 13.

The second section of Screen 14 is the input for deferred tax calculations. Enter tax basis, market value, and proprietorship or partnership information.

<u>BREAKDOWN OF 1993 ACCRUAL CROP EXPENSES BY CROP</u>			SCREEN 14.
Crop	Accrual Ferti- lizer & Lime	Accrual Seeds & Plants	Accrual Spray, Other Crop Expenses
Hay crop (silage & dry)	\$ <u>3,250</u>	\$ <u>3,000</u>	\$ <u>1,500</u>
Corn (silage & grain)	<u>6,200</u>	<u>3,825</u>	<u>1,780</u>
Pasture	<u>3,000</u>	<u>400</u>	<u>550</u>
All other crops	<u>1,400</u>	<u>580</u>	<u>2,145</u>
Total	\$ <u>13,850</u>	\$ <u>7,805</u>	\$ <u>5,975</u>

Totals above must equal accrual expenses in Screen 13, page 13.

OPTIONAL INPUT FOR DEFERRED TAX CALCULATIONS

It will be assumed that: (1) farm assets not listed below will not significantly influence deferred tax liability, and (2) all gain on machinery and purchased livestock is ordinary gain.

Tax Basis (undepreciated balance) of: (as of December 31, 1993)

Purchased livestock (included in livestock inventory, Screen 4)	\$ <u>14,000</u>
Machinery & equipment (included in mach. inventory, Screen 2)	\$ <u>88,000</u>
Buildings & improvements (included in R.E. inventory, Screen 5)	\$ <u>110,000</u>
Part that is single purpose livestock structure, silos, & grain bins (\$ or %)	\$ _____ OR <u>90 %</u>
Land (included in land and building inventory, Screen 5)	\$ <u>85,000</u>
Operator residences ¹ (included in land & bldg. inventory, Screen 5)	\$ <u>25,000</u>
Nonfarm assets (included in Screen 9)	\$ _____

Market Value of:

Operator residences (included in land & bldg. inventory, Screen 5)	\$ <u>60,000</u>
Single purpose livestock structure, silos & grain bins (\$ or % of R.E. inventory)	\$ _____ OR <u>25 %</u>
Purchased Livestock (\$ or % of livestock inventory)	\$ _____ OR <u>20 %</u>

Proprietorship Information:

Tax filing status ²	<u>2</u>
Nonfarm income of operator on which self-employment tax was paid	\$ _____

Partnership Information: Partner 1 Partner 2 Partner 3 Partner 4 Partner 5

Tax Filing Status ²	_____	_____	_____	_____	_____
Percent Share of Farm	_____ %	_____ %	_____ %	_____ %	_____ %
Adjusted Gross Income	_____	_____	_____	_____	_____
Percent Ownership of:					
Current Assets	_____ %	_____ %	_____ %	_____ %	_____ %
Livestock	_____ %	_____ %	_____ %	_____ %	_____ %
Machinery	_____ %	_____ %	_____ %	_____ %	_____ %
Real Estate	_____ %	_____ %	_____ %	_____ %	_____ %
Nonfarm Assets Listed	_____ %	_____ %	_____ %	_____ %	_____ %
Nonfarm Income of operator on which self-employment tax was paid	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

Farm No.46004

Screen #14

BREAKDOWN OF 1993 ACCRUAL CROP EXPENSES BY CROP			
Crop	Acc Fert./Lime	Acc Seeds/Plants	Acc Spry/Othr Exp
Hay Crop (silage & dry)	\$ 3250	\$ 3000	\$ 1500
Corn (silage & grain)	\$ 6200	\$ 3825	\$ 1780
Pasture	\$ 3000	\$ 400	\$ 550
All other crops	\$ 1400	\$ 580	\$ 2145
TOTAL	\$ 13850	\$ 7805	\$ 5975

OPTIONAL INPUT FOR DEFERRED TAX CALCULATIONS			
Tax Basis (undepreciated balance) of: (as of December 31, 1993)			
Purchased livestock			\$ 14000
Machinery & equipment			\$ 88000
Buildings & improvements			\$ 110000
Part that is single purpose livestock structure, silos, & grain bins (% or \$)		90% or	\$ 0
Land			\$ 85000
Operator residences			\$ 25000
Nonfarm assets			\$ 0

Press [ESC] or [PgDn] to go to Screen 14A

<<<<(SCREEN 14 CONTINUED)>>>> (PRESS [ESC] TO GO TO SCREEN 14)

Market value of:					
Operator residences					\$ 60000
Single purpose livestock structure, silos & grain bins (% of R.E. inventory or \$)			25% or		\$ 0
Purchased Livestock (% of Livestock inventory or \$)			20%		\$ 0
Proprietorship Information:					
Tax filing status					2
Nonfarm income of operator on which self-employment tax was paid					\$ 0
PARTNERSHIP INFO.					
Tax Filing Status	PARTNER 1	PARTNER 2	PARTNER 3	PARTNER 4	PARTNER 5
Percent share of Farm	0	0	0	0	0
Adj. gross income	0%	0%	0%	0%	0%
Percent Ownership of:					
Current Assets	0%	0%	0%	0%	0%
Livestock	0%	0%	0%	0%	0%
Machinery	0%	0%	0%	0%	0%
Real Estate	0%	0%	0%	0%	0%
Nonfarm Assets Listed	0%	0%	0%	0%	0%
Nonfarm Income of Operator on which Self-Employment tax was paid	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

At the command line, type ↵ (return/enter) or [Esc] to go back to the main menu. **AT THIS POINT THE DATA ARE STORED TO DISK - THEREFORE DO NOT REMOVE THE DISKETTE FROM THE DRIVE.**

V. Verify the data.

We all make typing mistakes occasionally. The "Verify Record" option is an important step that will reduce the embarrassment of having a farmer tell you that you typed one of his figures incorrectly and printed out a "nonsense" summary for him. It is tempting to skip this step. The best advice is don't skip this step.

Use the ↓ cursor key to move down to "Verify Record" in the main menu and type ↵. You will be asked for the farm number. Type:

46004 ↵ (return/enter)

The program will go on to Screen 1. As you see, the information that was entered under the "Create/Update/Display Record" option is displayed. Re-enter the data for Screen 1.

If you were to incorrectly enter the Operator's name as "Daniel Dairyman", the following message would appear on the screen:

ENTRY DOES NOT MATCH PREVIOUS ENTRY

The program will give you this kind of message for up to three tries. On the fourth try, if it still does not match a previous entry, the following message will be displayed:

LAST ENTRY DIDN'T MATCH - ACCEPTED WITHOUT QUESTION

At this point you are on your own to see that the entry is correct. Use the cursor key (↑) to move back to the incorrect entry and retype it.

In Screens 2 through 14, where the entries are numeric not character data, the value you are verifying will appear as a zero.

Re-enter the data for all the screens. The cursor movement and movement between screens are done the same as in the "Create/Update/Display Record" option.

When you have completed the verification process on Screen 14, the program will return to the main menu.

VI. Calculate and print farm summary.⁸

You are now ready to calculate and print a dairy farm business summary. Use the ↓ cursor key to move down to "Calculate and Print Farm Summary". You will be prompted for the farm number. Type:

46004 ↓ (return/enter)

The following will be displayed on the screen⁹:

BEGINNING CALCULATIONS-If you get error 02, you may have missing data.

DFBS CALCULATION PROGRAM

ENTER DESIRED OUTPUT DEVICE; (S)creen, (P)rinter, (F)ile or (Q)uit

Select the appropriate output device:¹⁰

1. Type "S" to have the output be displayed on the screen. The output will scroll, so use [Control] - [num-lock]¹¹ keys or the [Pause] key to stop the output from scrolling. Press any key to continue scrolling.
2. Type "P" to have the output printed on your printer. You will be prompted for the number of copies to print. Before entering the number be sure to have your printer on and the paper set at the perforation. The program will advance the paper a couple of lines before starting to print.
3. Type "F" to have the calculated output stored on your disk in text format. The file name will be made up of the farm number with a file extension of .prt (<farm no.>.prt). This file will be stored on the disk that you specified when you ran the "install" program. This option is useful when you want to load the output into a word processing package or print from DOS.
4. Type "Q" to go back to the main menu.

After you select one of the above, you will see the following message:

ENTER DESIRED REPORT, PAGE NUMBER, OR A FOR ALL PAGES: (A)ll Pages, (D)iaGs., (C)ash Flow, (V)Convert, (T)Tax Deferment or Page#: Typing A↓ (return/enter) will display, print or file the 12 pages of output plus the diagnostic page; D↓ gives the diagnostic page only; C↓ gives the old format of the Cash Flow Statement; V↓ makes the file <farm no.>XP.prn that is used by the DFBS Expert System Analysis, T↓ gives the condensed balance sheet including deferred taxes; and entering a number from 1 to 12 gives you that page number.

⁸See Appendix C for the procedure used to calculate costs of producing milk that are printed on page 10 of the following output.

⁹If there were no previous year's data, the following messages will also be displayed:

1992 FILE DOES NOT EXIST - SETTING VALUES TO 0
1991 FILE DOES NOT EXIST - SETTING VALUES TO 0

¹⁰If there is an I/O error F3 during calculation, follow the instructions in Appendix D.

¹¹Hold down the [ctrl] key and press the [num-lock] key.

FARM NO. 46004

JANUARY 19, 1994

INCOME STATEMENT

EXPENSES	Cash Amount paid +	Change in Inventory or Prepaid + Expense*	Change in Accounts Payable** =	Accrual Expenses
Hired Labor	\$ 42800	\$ 0<<	\$ 0	\$ 42800
Feed				
Dairy grain & conc.	75500	-600	7200	82100
Dairy roughage	2350	50	0	2400
Nondairy	0	0	0	0
Machinery				
Mach hire, rent/lease	4100	-500<<	1700	5300
Machinery repairs/parts	29200	-75	0	29125
Auto expense (f.s.)	1200	0<<	0	1200
Fuel, oil & grease	11400	20	100	11520
Livestock				
Replacement livestock	500	0<<	0	500
Breeding	3800	-300	0	3500
Veterinary & medicine	8350	5	1800	10155
Milk marketing	6800	-500<<	0	6300
Cattle lease/rent	200	0<<	0	200
Other livestock expense	4000	0	0	4000
Crops				
Fertilizer & lime	13800	50	0	13850
Seeds & plants	7700	105	0	7805
Spray, other crop exp.	5950	25	0	5975
Real Estate				
Land/bldg/fence repair	3500	-25	0	3475
Taxes	6300	0<<	0	6300
Rent & lease	4500	-275<<	0	4225
Other				
Insurance	3400	0<<	0	3400
Telephone (farm share)	1200	0<<	0	1200
Electricity (farm share)	10050	0<<	450	10500
Interest paid	50070	0<<	0	50070
Miscellaneous	4300	180	0	4480
TOTAL OPERATING	\$ 300970	\$ -1840	\$ 11250	\$ 310380
Expansion livestock	\$ 0	\$ 0<<	\$ 0	\$ 0
Machinery depreciation				\$ 24000
Building depreciation				\$ 10500
TOTAL ACCRUAL EXPENSES				\$ 344880

*Changes in inventory include net amounts of items used out of purchased inventory this year (positive change is amt. inventory declined, negative change is amt. inventory increased). Changes in prepaid expenses, (noted by << above) apply to non-inventory categories (positive change is amt. pre-pymnt. declined.)

**Unpaid items or services used or added to inventory during the year.

FARM NO. 46004

JANUARY 19, 1994

INCOME STATEMENT (continued)

RECEIPTS	Cash Receipts	Change in Inventory*	Change in Accounts Receivable	Accrual Receipts
Milk sales	\$ 308500		\$ 8200	\$ 316700
Dairy cattle	17450	\$ 18550	0	36000
Dairy calves	4300		0	4300
Other livestock	600	0	0	600
Crops	11700	-3000	1260	9960
Gov't receipts	9300	0**	0	9300
Custom machine work	670		2700	3370
Gas tax refund	1500		0	1500
Other	0		0	0
-Noncash capital transfer		(-) 4850***		(-) 4850
TOTAL ACCRUAL RECEIPTS	\$ 354020	\$ 10700	\$ 12160	\$ 376880

*Change in lvstck inv. w/o apprec. & total change in grown feeds inv.

**Change in advanced government receipts.

***Gifts & inheritances of cattle & crops to the farm business.

PROFITABILITY ANALYSIS

	Without Apprec.	Appreciation	With Apprec.
RETURN TO OPERATOR(S) & FAMILY LABOR UNPAID, MGMT., & EQUITY CAPITAL:			
Total Accrual Receipts	\$ 376880		
Livestock Appreciation		\$ 14400	
Machinery Appreciation		-1700	
Real Estate Appreciation		8405	
Other Stock/Cert. Appreciation		-400	
			\$ 397585
- Total Accrual Expenses	\$ 344880		\$ 344880
= NET FARM INCOME	\$ 32000		\$ 52705
RETURN TO OPERATOR(S) LABOR, MANAGEMENT & EQUITY CAPITAL:			
Net Farm Income	\$ 32000		\$ 52705
- Family Labor Unpaid @ \$1400/mo.	16800		16800
= RETURN TO OP.'S LABOR, MGT. & EQ. CAPITAL	\$ 15200		\$ 35905
RETURN TO OPERATOR'S LABOR & MANAGEMENT:			
Return to Op.'s Labor, Mgt. & Eq. Capital	\$ 15200		
- Real Interest on \$ 480755 Average Equity Capital @ 5%	24038		
= LABOR & MANAGEMENT INCOME	\$ -8838		
LABOR & MANAGEMENT INC. PER 1.83 OP./MGR.	\$ -4829		
RETURN TO EQUITY CAPITAL:			
Return to Op.'s Labor Mgt. & Eq. Capital	\$ 15200		\$ 35905
- Value of Operator's Labor & Management	25000		25000
= RETURN TO EQUITY CAPITAL	\$ -9800		\$ 10905
Rate of Return on Equity Capital	-2.0%		2.3%
RETURN TO ALL CAPITAL:			
Return to Equity Capital	\$ -9800		\$ 10905
+ Interest Paid	50070		50070
= RETURN TO ALL CAPITAL	\$ 40270		\$ 60975
Rate of Return on All Capital	4.3%		6.6%

FARM NO. 46004

JANUARY 19, 1994

1993 BALANCE SHEET

ASSETS		FARM BUSINESS		LIABILITIES & NET WORTH	
	Jan. 1	Dec. 31		Jan. 1	Dec. 31
<u>Current</u>			<u>Current</u>		
Farm cash, chkg & savings	\$ 3000	\$ 4500	Accounts payable	\$ 3800	\$ 15050
Accts. rec.	22840	35000	Operating debt		
Prepaid exp.	3570	4845	John Deere	2500	0
Feed/supplies	97920	95485		0	0
			Short term:		
			PCA	27500	30000
				0	0
Total	\$ 127330	\$ 139830		0	0
			Advanced Gov. Rec.	550	550
			Current portion:		
			Intermediate	0	57274
			Long Term	0	15216
			Total	\$ 34350	\$ 118090
<u>Intermediate</u>			<u>Intermediate</u>		
Dairy cows:			PCA	79000	51699
owned	100000	132000	First Bank	73400	73400
leased	1626	284	John Deere	46000	37098
Heifers	59000	59850		0	0
Bulls/other				0	0
lvstk.	2500	2600		0	0
Mach/eq owned	200000	204000		0	0
Mach/eq leased	6409	160		0	0
FCB Stock	2500	2500		0	0
Other stock & cert.	25	25		0	0
			Financial lease (Cattle/mach.)	8035	443
Total	\$ 372060	\$ 401418	FCB Stock	2500	2500
			Total	\$ 208935	\$ 145969
<u>Long-Term</u>			<u>Long-Term</u>		
Land/buildings:			FLB	110000	101262
owned	400000	405000	Real Estate	87000	78522
leased	12732	1110		0	0
				0	0
Total	\$ 412732	\$ 406110		0	0
Total Farm Assets	\$ 912121	\$ 947358	Fin. lease (struc)	12732	1110
			Total	\$ 209732	\$ 180894
			Total Farm Liab.	\$ 453016	\$ 444953
			FARM NET WORTH	\$ 459105	\$ 502405
			NONFARM		
Nonfarm Assets	Jan. 1	Dec. 31	Nonfarm Liab.	Jan. 1	Dec. 31
Pers. cash/chkg/savings	\$ 10000	\$ 9500		\$ 5000	\$ 4000
Cash value of life insur.	5400	5400			
Nonfarm Real Estate	8650	8800			
Auto (personal share)	12546	11257			
Stocks & Bonds	3000	3000			
Household Furnishings	8570	8640			
All other	0	0			
Total Nonfarm	\$ 48166	\$ 46597	NONFARM NET WORTH	\$ 43166	\$ 42597
			FARM & NONFARM	Jan. 1	Dec. 31
Total Farm & Nonfarm Assets				\$ 960287	\$ 993955
Total Farm & Nonfarm Liabilities				\$ 458016	\$ 448953
FARM & NONFARM NET WORTH				\$ 502271	\$ 545002

FARM NO. 46004

JANUARY 19, 1994

BALANCE SHEET ANALYSIS

<u>Financial Ratios</u>	<u>Farm Business</u>	<u>Farm & Nonfarm</u>
Percent equity	53%	55%
Debt to asset ratios: Total	0.47	0.45
Long-term	0.45	
Intermediate/current	0.49	

Debt Analysis

Accounts payable as % of total debt	3%
Long-term debt as a % of total debt	41%
Current & intermediate debt as % of total debt	59%

Debt Levels

	<u>Per Cow</u>	<u>Per Tillable Acre Owned</u>
Total farm debt	\$ 2472	\$ 1483
Long-term debt	1005	603
Intermediate/current	1467	880

<u>Farm Inventory</u>	<u>Real Estate</u>	<u>Machinery & Equipment</u>	<u>Livestock</u>	<u>Feed & Supplies</u>
Beginning of Year	\$ 400000	\$ 200000	\$ 161500	\$ 97920
Purchases	11400*	26000		
+ Noncash Transfer to Farm	1450	4000		
- Lost Capital	500			
- Net Sales	5255	300		
- Depreciation	10500	24000		
= Net Investment	-3405	5700	18550**	
Appreciation	8405	-1700	14400	
End of Year	\$ 405000	\$ 204000	\$ 194450	\$ 95485

* \$ 1500 Land + \$ 9900 Building.

** See page 10, Dairy Inventory Analysis, for dairy cow and heifer inventory detail.

 STATEMENT OF OWNER EQUITY (RECONCILIATION)

		<u>Farm Business</u>
Beginning of year farm net worth		\$ 459105
Net farm income without appreciation	\$ 32000	
+ Nonfarm cash income	+ 8000	
- Personal withdrawals and family expenditures excluding nonfarm borrowings	- <u>28605</u>	
RETAINED EARNINGS	=	+\$ 11395
Nonfarm noncash transfers to farm	\$ 10300	
+ Cash used in business from nonfarm capital	+ 1400	
- Note/mortgage from farm real est. sold (nonfarm)	- <u>0</u>	
CONTRIBUTED/WITHDRAWN CAPITAL	=	+\$ 11700
Appreciation	\$ 20705	
- Lost capital	- <u>500</u>	
CHANGE IN VALUATION EQUITY	=	+\$ 20205
IMBALANCE/ERROR		-\$ <u>0</u>
End of year farm net worth		=\$ 502405
Change in net worth with appreciation		\$ 43300

<u>Change in Net Worth</u>	<u>Farm Business</u>	<u>Farm & Nonfarm</u>
Without appreciation	\$ 22595	
With appreciation	\$ 43300	\$ 42731

The Statement of Owner Equity has two purposes. It allows (1) verification that the accrual income statement and market value balance sheet are interrelated and consistent (in accountants' terms, they reconcile) and (2) identification of the causes of change in equity that occurred on the farm during the year. The Statement of Owner Equity allows you to determine to what degree the change in equity was caused by (1) earnings from the business, and nonfarm income, in excess of withdrawals being retained in the business (called retained earnings), (2) outside capital being invested in the business or farm capital being removed from the business (called contributed/withdrawn capital) and (3) increases or decreases in the value (price) of assets owned by the business (called change in valuation equity).

FARM NO. 46004

7

JANUARY 19, 1994

ANNUAL CASH FLOW STATEMENT

Cash Flow From Operating Activities

Cash farm receipts	\$ 354020	
- Cash farm expenses	<u>300970</u>	
= Net cash farm income		\$ 53050
Nonfarm income	8000	
- Personal withdrawals/ family expenses, including nonfarm debt payments	<u>28605</u>	
+ Net cash nonfarm income		<u>\$ -20605</u>
= Net Provided by Operating Activities		\$ 32445

Cash Flow From Investing Activities

Sale of assets: machinery	\$ 300	
+ real estate	5255	
+ other stock/cert.	<u>0</u>	
= Total asset sales		\$ 5555
Capital purchases: expansion livestock	\$ 0	
+ machinery	26000	
+ real estate	11400	
+ other stock/cert.	<u>400</u>	
- Total invested in farm assets		<u>\$ 37800</u>
= Net Provided by Investing Activities		\$ -32245

Cash Flow From Financing Activities

Money borrowed (intermediate & long-term)	\$ 50960	
+ Money borrowed (short-term)	30000	
+ Increase in operating debt	0	
+ Cash from nonfarm capital used in business	1400	
+ Money borrowed - nonfarm	<u>0</u>	
= Cash inflow from financing		\$ 82360
Principal payments (inter. & long-term)	\$ 51060	
+ Principal payments (short-term)	27500	
+ Decrease in operating debt	<u>2500</u>	
- Cash outflow for financing		<u>\$ 81060</u>
= Net Provided by Financing Activities		\$ 1300

Cash Flow From Reserves

Beginning farm cash, checking & savings	\$ 3000	
- Ending farm cash, checking & savings	<u>4500</u>	
= Net Provided from Reserves		\$ -1500
<u>Imbalance (error)</u>		\$ 0

FARM NO. 46004

REPAYMENT ANALYSIS

JANUARY 19, 1994

<u>Debt Payments</u>	<u>Planned for 1993*</u>	<u>Made in 1993</u>	<u>Planned for 1994 *</u>
Long term	\$ 15648	\$ 36100	\$ 32400
Intermediate term	23496	62530	73272
Short-term	0	27500	2496
Operating (net reduction)	0	2500	0
Accounts payable (net reduction)	0	0	0
Total	\$ 39144	\$ 128630	\$ 108168
(% made of planned = 329%)			
Per cow	\$ 230	\$ 757	
Per cwt. 1993 milk	\$ 1.57	\$ 5.15	
Percent of total 1993 receipts	10%	34%	
Percent of 1993 milk receipts	12%	41%	

* If on Business Summary in 1992.

Cash Flow Coverage Ratio

Cash Farm Receipts	\$ 354020	
- Cash Farm Expenses	300970	
+ Interest Paid	50070	
- Net Pers. Withdls from Farm**	20605	
(A) = Amount Available for Debt Service		\$ 82515
(B) = Debt Payments Planned for 1993		\$ 39144
(A / B) Cash Flow Coverage Ratio for 1993		2.11

** Personal withdrawals & family expenditures less nonfarm income and nonfarm money borrowed.

FARM NO. 46004

JANUARY 19, 1994

CROPPING PROGRAM ANALYSIS

Land	Owned	Rented	Total
Tillable	300	150	450
Nontillable Pasture	15	0	15
Other nontillable	10	0	10
Total	325	150	475

Crop Yields	Acres	Total Production	Production Per Acre
Dry hay		248 Tons DM	
Hay crop silage		242 Tons DM	
Total Hay Crop Production	140	490 Tons DM	3.50 Tons DM
Corn silage	75	1250 Tons	16.67 Tons
		500 Tons DM	6.67 Tons DM
Other forage	0	0 Tons DM	0.00 Tons DM
Total Forage	215	990 Tons DM	4.60 Tons DM
Corn grain	100	11080 Bushels	110.80 Bushels
Oats	15	900 Bushels	60.00 Bushels
Wheat	15	750 Bushels	50.00 Bushels
Other crops	0		
Tillable pasture	105		
Idle tillable land	0		
Total tillable acres	450		

Crop Related Accrual Expenses

Crop Expenses	Total Per Till. Acre	All Corn /Acre	Corn Silage /Ton DM	Corn Grain/Dry Shell Bu
Fertilizer & Lime	\$ 30.78	\$ 35.43	\$ 5.31	\$ 0.32
Seeds & plants	17.34	21.86	3.28	0.20
Spray/other crop exp.	13.28	10.17	1.53	0.09
Total Crop Expense	\$ 61.40	\$ 67.46	\$ 10.12	\$ 0.61

Crop Expenses	Hay Crop		Pasture	
	/Acre	/Ton DM	/Till. Acre	/Total Acre
Fertilizer & lime	\$ 23.21	\$ 6.63	\$ 28.57	\$ 25.00
Seeds & Plants	21.43	6.12	3.81	3.33
Spray/other crop exp.	10.71	3.06	5.24	4.58
Total Crop Expense	\$ 55.36	\$ 15.82	\$ 37.62	\$ 32.92

Machinery	Total	Per Tillable Acre
Fuel, oil & grease	\$ 11520	\$ 25.60
Machinery repair & parts	29125	64.72
Machine hire, rent & lease	5300	11.78
Auto expense (farm share)	1200	2.67
Interest (5%)	10100	22.44
Depreciation	24000	53.33
Total Machinery Cost	\$ 81245	\$ 180.54

Crop/Cow Factors

Total Tillable Acres per Cow	2.65
Total Forage Acres per Cow	1.26
Harvested Forage Dry Matter per Cow	5.82

ROTATIONAL GRAZING

FARM NO. 46004

JANUARY 19, 1994

DAIRY ANALYSIS

Dairy Inventory	Dairy Cows		Bred		Heifers Open		Calves	
	No.	Value	No.	Value	No.	Value	No.	Value
Beg. of Year	100	\$ 100000	30	\$ 25500	20	\$ 11000	50	\$ 22500
+ Change in Inv. (w/o apprec.)		20000		-4250		550		2250
+ Appreciation		12000		1250		1050		0
= End of Year	120	\$ 132000	25	\$ 22500	21	\$ 12600	55	\$ 24750
Total End (incl. leased)	180							
Average Number	170		101	All Age Groups				

Milk Production

Total milk sold	2500000 lbs.
Milk sold per cow	14706 lbs.
Average milk plant test	3.65 % butterfat

<u>Accrual Receipts From Dairy</u>	<u>Total</u>	<u>Per Cow</u>	<u>Per Cwt.</u>
Milk	\$ 316700	\$ 1863	\$ 12.67
Dairy cattle (including culls)	36000	212	1.44
Dairy calves	4300	25	0.17
Total	\$ 357000	\$ 2100	\$ 14.28

Accrual Cost of Producing Milk -
Whole Farm Method

Operating cost of producing milk	\$ 250200	\$ 1472	\$ 10.01
Purchased inputs cost of producing milk*	284700	1675	11.39
Total cost of producing milk	350538	2062	14.02

Dairy Related Accrual Expenses

Purchased dairy grain & concentrates	\$ 82100	\$ 483	\$ 3.28
Purchased dairy roughage	2400	14	0.10
Total Purchased Dairy Feed	84500	497	3.38
Purchased grain & concentrates as % of milk receipts	26%		
Purchased feed & crop exp.	\$ 112130	\$ 660	\$ 4.49
Purchased feed & crop exp. as % of milk receipts	35%		
Breeding	\$ 3500	\$ 21	\$ 0.14
Veterinary & medicine	10155	60	0.41
Milk marketing	6300	37	0.25
Cattle lease	200	1	0.01
Other livestock expense	\$ 4000	\$ 24	\$ 0.16

D.H.I, HERRINGBONE PAR, FREESTALL, 3 TIMES/DAY.

*Total cost of producing milk excluding unpaid family labor and operator's labor, management and capital.

FARM NO. 46004

JANUARY 19, 1994

CAPITAL & LABOR EFFICIENCY ANALYSIS

Capital Efficiency (Average for Year)

	<u>Per Worker</u>	<u>Per Cow</u>	<u>Per Tillable Acre</u>	<u>Per Tillable Acre Owned</u>
Farm capital	\$ 199230	\$ 5469	\$ 2066	\$ 3099
Real estate		2408		1365
Machinery & equip.	43989	1208	456	

Asset Turnover Ratio 0.43

<u>Labor Force</u>	<u>Months</u>	<u>Age</u>	<u>Years of Education</u>	<u>Value of Labor & Mgmt.</u>
Operator number 1	11	27	16	\$ 10000
Operator number 2	11	30	16	\$ 15000
Family paid	0			
Family unpaid	12			
Hired	22			
Total	56 / 12 =	4.67 Worker Equivalent 1.83 Operator/Manager Equivalent		

Labor Efficiency

	<u>Total</u>	<u>Per Worker</u>
Cows, average no.	170	36
Milk sold, lbs.	2500000	535714
Tillable acres	450	96
Work units	1616	346

<u>Labor Cost</u>	<u>Total</u>	<u>Per Cow</u>	<u>Per Cwt.</u>
Value of Operator(s)			
Labor (\$1400/month)*	\$ 30800	\$ 181	\$ 1.23
Family unpaid (\$1400/month)*	16800	99	0.67
Hired	42800	252	1.71
Total Labor	\$ 90400	\$ 532	\$ 3.62
Machinery Cost (see page 9)	\$ 81245	\$ 478	\$ 3.25
Total Labor & Machinery Costs	\$ 171645	\$ 1010	\$ 6.87

* When comparing to previous years data, please note 1990 constants used in calculations were \$1250/month for both the Value of Operator(s) Labor and Unpaid Family Labor. In 1991, these values were \$1,300/month and in 1992 they were \$1350/month.

FARM NO. 46004

12

JANUARY 19, 1994

ANNUAL CASH FLOW WORKSHEET

Item	Receipt or Expense		Expected Change	1994 Projection
	Total	Per Cow		
Average Number of Cows	170			
ACCRUAL OPERATING RECEIPTS				
Milk	\$ 316700	\$1862.94		\$
Dairy cattle	36000	211.76		
Dairy calves	4300	25.29		
Other livestock	600	3.53		
Crops	9960	58.59		
Miscellaneous receipts	14170	83.35		
Total	\$ 381730	\$2245.47		\$
ACCRUAL OPERATING EXPENSES				
Hired labor	\$ 42800	\$ 251.76		\$
Dairy grain & concentrate	82100	482.94		
Dairy roughage	2400	14.12		
Nondairy feed	0	0.00		
Machine hire/rent/lease	5300	31.18		
Mach.repair/parts & auto	30325	178.38		
Fuel, oil & grease	11520	67.76		
Replacement livestock	500	2.94		
Breeding	3500	20.59		
Veterinary & medicine	10155	59.74		
Milk marketing	6300	37.06		
Cattle lease	200	1.18		
Other livestock expense	4000	23.53		
Fertilizer & lime	13850	81.47		
Seeds & plants	7805	45.91		
Spray/other crop expense	5975	35.15		
Land, bldg., fence repair	3475	20.44		
Taxes	6300	37.06		
Real estate rent/lease	4225	24.85		
Insurance	3400	20.00		
Utilities	11700	68.82		
Miscellaneous	4480	26.35		
Total Less Interest Paid	\$ 260310	\$1531.24		\$
NET ACCRUAL OPERATING INCOME				
(w/o interest paid)	\$ 121420	\$ 714.24		\$
- Change in lvstk/crop inv	10700	62.94		
- Change in accounts rec.	12160	71.53		
+ Change in feed/supply inv	-1840	-10.82		
+ Change in accts. payable*	11250	66.18		
NET CASH FLOW	\$ 107970	\$ 635.12		\$
- Net personal withdrawals & family expenditures	20605	121.21		
Available for Farm Debt				
Payments & Investments	\$ 87365	\$ 513.91		\$
- Farm debt payments**	128630	756.65		
Avail. for Farm Investment	\$ -41265	\$-242.74		\$
- Capital purchases; cattle, machinery, improvements	37800	222.35		
Additional Capital Needed				\$

* Less change in account payable for interest. **See page 8.

FARM NO. 46004

JANUARY 19, 1994

MACHINERY & EQUIPMENT INVENTORY
 FEED AND SUPPLY INVENTORY
 LIVESTOCK INVENTORY
 REAL ESTATE INVENTORY
 LIVESTOCK & BUSINESS DESCRIPTION
 LABOR
 ASSETS AND LIABILITIES
 FINANCIAL LEASES
 RECEIPTS

9. Government receipts or other receipts > \$5000.

Government Receipts = \$ 9300 Other Receipts = \$ 0

9. Gas tax refund in excess of \$500.

EXPENSES

CROP EXPENSE BREAKDOWN

MANAGEMENT PERFORMANCE MEASURES

*. Net farm income w/appreciation = \$ 52705.

*. Labor & management income/operator < \$0 or > \$30,000 = \$ -4829.

*. Rate return on equity capital w/o appreciation = -2.0.

*. Cash flow coverage ratio < .8 or > 1.2, = 2.11.

*. Cash inflow = \$ 452935, Cash outflow = \$ 452935, Imbalance = \$ 0.

OTHER

Farm coded irregular.

Dairy Farm

Full-Time Farm

OWNER

Optional Cash Flow Statement
FARM NO. 46004

JANUARY 19, 1994

ANNUAL CASH FLOW STATEMENT

Cash Inflows

Beginning farm cash, checking & savings	\$	3000	
Cash farm receipts		354020	
Sale of assets: Machinery		300	
Real estate		5255	
Other stock & certificates		0	
Money borrowed (intermediate & long-term)		50960	
Money borrowed (short-term)		30000	
Increase in operating debt		0	
Nonfarm income		8000	
Cash from nonfarm capital used in business		1400	
Money borrowed - nonfarm		0	
TOTAL			\$ 452935

Cash Outflows

Cash farm expenses	\$	300970	
Capital purchases: Expansion livestock		0	
Machinery		26000	
Real estate		11400	
Other stock & certificates		400	
Principal payments (intermediate & long-term)		51060	
Principal payments (short-term)		27500	
Decrease in operating debt		2500	
Personal withdrawals & family expenditures, including nonfarm debt payments		28605	
Ending farm cash, checking & savings		4500	
TOTAL			\$ 452935
Imbalance (error)			\$ 0

CONDENSED BALANCE SHEET INCLUDING DEFERRED TAXES
December 31, 1993

ASSETS		LIABILITIES & NET WORTH	
		Current debts & payables	\$ 118090
		Current deferred taxes	46758
Total Current Assets	\$ 139830	Total Current Liabilities	\$ 164848
		Intermediate debts & leases	\$ 145969
		Intermediate deferred taxes	114232
Total Inter. Assets	\$ 401418	Total Inter. Liabilities	\$ 260202
		Long term debts & leases	\$ 180894
		Long term deferred taxes	68030
Total Long Term Assets	\$ 406110	Total Long Term Liab.	\$ 248924
TOTAL FARM ASSETS	\$ 947358	TOTAL FARM LIABILITIES	\$ 673973
		Farm Net Worth	\$ 273385
		Percent Equity (Farm)	29%
		Nonfarm debts	\$ 4000
		Nonfarm deferred taxes	18114
Total Nonfarm Assets	\$ 46597	Total Nonfarm Liabilities	\$ 22114
TOTAL ASSETS	\$ 993955	TOTAL LIABILITIES	\$ 696088
		Total Net Worth	\$ 297867
		Percent Equity (Total)	30%

Deferred taxes represent an estimate of the taxes that would be paid if the farm were sold on the balance sheet date. Accuracy is dependent on the accuracy of the market values and the tax basis data provided. Any tax liability for assets other than livestock, machinery, land, buildings and nonfarm assets is excluded. It is assumed that all gain on purchased livestock and machinery is ordinary gain and that listed market values are net of selling costs. The effects of investment tax credit carryover and recapture, carryover of operating losses, alternative minimum taxes and effects of other than average are excluded because they have only minor influence on the taxes of most farms. However, they could be important.

VII. Check the diagnostics page.

The diagnostics page is a listing of data items that fall outside of "normal" ranges for that item. These unusual items may indicate data entry errors or simply unusual farm situations. Look over the diagnostics page. Refer to the section beginning on page 50 entitled, "Hints for Interpreting and Using Dairy Farm Business Summary Diagnostics". Initial each item and write an explanation as necessary on one copy. Send this copy to Cornell along with the diskette and check-in form to indicate that the record is correct. This will save everyone time and telephone calls spent verifying and correcting farm records.

VIII. Update a record.

Select the "Create/Update/Display Record" option on the main menu to update a farm record. After entering the farm number, the program will take you to Screen 1. If no updates are to be made on Screen 1, press the [Esc] key to display the message:

[PgDn] or [RETURN] - next, [PgUp] - previous screen, [Esc] to exit, or # of Screen.

Enter the number of the screen where a change needs to be made. Use the cursor keys to move to the appropriate value and retype the new value over the old one. Important: If totals or calculated values appear on the screen, be sure to press return or use the ↓ arrow key to move through the calculated items so they will be recalculated.

You may now move to another screen to make more changes in data or return to the main menu.

IX. Display a record.

To display a record, select "Create/Update/Display Record" on the main menu. Move to any screen by entering the screen number as described in the previous section.

X. Delete a record.

To delete a farm record, select "Delete Record" on the main menu. You will be prompted for a farm number. Enter the number of the farm you want deleted. The current year's data file (<farm no.>.93) will be erased.

XI. Help

Select the "Help" option on the main menu. A brief description of each option on the main menu will be displayed.

XII. Quit

To leave the Micro DFBS program, select "Quit" on the main menu. You will then be at the DOS prompt (C>). For a two-floppy disk system, you will be prompted to insert the DOS diskette in drive A. You can restart Micro DFBS by typing 'dfbs'.

XIII. Make two backup copies of the data diskette.

Remove the DFBS program diskette from drive A and insert a blank, formatted diskette. To review the data files on your data diskette, type:

DIR B:J

(Or DIR C:J if the data is on the hard disk and you are still in the 'dfbs' directory.)

You should see a list of data files as shown below.

A:\>dir b:

Volume in drive B has no label
Directory of B:\

46004	93	8041	1-18-94	3:22p
46004	920	331	1-07-93	11:06a
46004	910	270	1-07-93	11:06a
3 File(s)			1448448 bytes free	

The 1993 farm record files entered in 1994 will have file extensions of .93. The sample farm is file 46004.93.

To make backup copies of the farm record files from drive B to the blank, formatted diskette in drive A, type:

COPY B:*. * A:J

(Or COPY *. * A: if the data is on the hard disk.)

Do this twice.

One backup diskette is now ready to be shipped to Cornell, along with the check-in form, a copy of the printout and initialed diagnostics page. Keep the other diskette as your backup. This completes the operation of Micro DFBS.

DFBS ERROR MESSAGES

Run Time Error 02 PCXXXX¹² - Caused by an attempt to divide by zero. Check input to assure that all information is correct. If problem persists, call the authors for help.

Run Time Error F0 PCXXXX - Caused by program attempting to locate and not finding the program file Calc.000. Check the program disk to see if the file is present. If the file is not present, copy the file from a backup disk to the program disk.

I/O Error 01 PCXXXX - Caused by an attempt to open a file that the program cannot find; i.e., a data file that is not on the disk. Check to make sure the file exists and that you are using the proper disk drive.

I/O Error F0 PCXXXX - Disk full error. Too many files on the data disk. See the next section "What to do When the Diskette Gets Full".

I/O Error F3 PCXXXX - Too many files open. See Appendix D.

All of the above errors will cause the program to terminate and will bring the user back to the operating system. After checking and correcting the cause of the problem, the program may be run as usual.

COMMON PROBLEMS:

<u>Message</u>	<u>Interpretation</u>	<u>Solution</u>
Program won't recognize a farm record file	File extension (year, example .93) must be one less than the year you entered when you turned the computer on or typed "DATE"	Rename the file, changing the file extension. See your DOS manual, RENAME command
Disk error on drive A (or B or C)	Diskette not inserted, door not closed, bad diskette	Insert diskette Close door Try again or copy files from other drive. Replace diskette.
	Drive out of alignment	Service disk drive
CAN'T OPEN FILE!! or other cycling - keyboard won't respond	Cannot locate a file	Check file name. Use DIR command to check disk to see if file exists.

If the program locks up, the user can exit by pressing the Ctrl and C keys at the same time or, if that fails, by turning the computer off.

Please notify the authors (607-255-8429) of any problems.

¹²"XXXX" will be replaced by a number. Make note of this number. It is useful information to the programmer if there is a persistent problem.

WHAT TO DO WHEN THE DISKETTE GETS FULL

A 5 1/4" diskette formatted in DOS 2.1 holds about 360K of data. The "Create/Update/Display Record" option creates a data file for each farm which is about 9K in size. The two previous year's data files total 1K. "Calculate and Print Farm Summary" has the option to create a file (the one with the .prn extension) which is 35K. So, it takes a total of 45K for each farm if you have previous year's data, enter new data and save the calculated output for each summary. The data diskette should then hold about eight (360K ÷ 45K) farm records if you save the print files, and about 36 farm records if you do not. If you do wish to save the print files (<farm no.>.prn), it is recommended you save them on a separate disk.

When you fill up the diskette, you will get a message telling you to change diskettes. This may happen when you use "Create/Update/Display Record", but more likely at "Calculate and Print Farm Summary".

When this happens, you will need to use the DOS command COPY to copy the current and previous years' farm record files to another diskette. For example, to copy the record files for farm 46004 to a new diskette, remove the DFBS program diskette from drive A and insert a blank, formatted diskette. Then type:

```
COPY B:46004.* A:J
```

Then remove the original data diskette from drive B, move the new one from A to B, and reinsert the DFBS program diskette in drive A.

HINTS FOR INTERPRETING AND USING
DAIRY FARM BUSINESS SUMMARY DIAGNOSTICS

The last page(s) of a farm business summary printout are the "diagnostics". Diagnostics serve the purpose of alerting the person editing the record to possible data problems. Diagnostic statements are generated when data are missing, inconsistent or outside a "normal" expected range. Each diagnostic statement should be carefully scrutinized to help insure that the data are accurate. One should not rely on the diagnostics to "catch" data entry or data acquisition errors. Accurate original collection and entry of data are the best methods.

Page No. of
Check-In Form

MACHINERY AND EQUIPMENT INVENTORY

1. "Machinery owned but no machinery depreciation."

Check to see if machinery depreciation was collected on the check-in form (Screen 2) and not entered or if an entry error is present. Machinery could be rented from a partner in the business with the market value being reported, but not the depreciation. In situations where machinery is rented from a partner, it is preferable to enter machinery inventory values and depreciation for business analysis purposes. However, check to make certain machinery rental payments have been removed as a cash expense, but that debt payments on machinery remain.

1. "Machinery depreciation = n% of beginning inventory plus new machinery." (When $n < 5\%$ or $n > 20\%$)

Depreciation reported is probably too low or too high (Screen 2). Check to be certain that building and/or cattle depreciation has not been included as a machinery entry. Low depreciation values are expected when the average age of machinery is high (greater than 10 years) and little if any new machinery was purchased. High depreciation values are expected when the average age of machinery is low (less than five years) and relatively large purchases of new machinery occurred in recent years.

1. "Machinery appreciation exceeds depreciation."

Check to see if depreciation is within the expected range, but is not correct (Screen 2). Low depreciation often results in appreciation that is unrealistically high. In "normal" years of low to moderate inflation, machinery appreciation is expected to be less than machinery depreciation.

1. "Machinery appreciation = $-\$n$." [When $n < (-)10\%$ of beginning machinery inventory]

Reported machinery market values fell more than was accounted for by depreciation (Screen 2). While this is possible, especially in periods of "soft" machinery markets, the decrease was more than 10% of beginning machinery inventory. Check to see if all values, especially depreciation, are correct.

FEED AND SUPPLIES

2. "Feed and supply inventory increase > 25%."

Feed and supply inventory increased beyond what would "normally" be expected (Screen 3). Check to see if physical quantities and/or prices increased from beginning to end of year.

2. "Feed and supply inventory decrease > 25%."

Feed and supply inventory decreased beyond what would normally be expected (Screen 3). Check to see if physical quantities and/or prices decreased from beginning to end of year.

LIVESTOCK INVENTORY

3. "End of year (bred, open, or calf) heifer inventory at beginning prices > beginning of year inventory but no increase in (bred, open, or calf) heifer numbers."

Two possible explanations exist:

- (1) An increase in the quality of heifers has occurred.
- (2) The average age of youngstock from beginning of year to end of year has increased and thereby value per head increased.

Check to be certain one or both of the above actually occurred (Screen 4).

3. "End of year (bred, open, or calf) heifer inventory at beginning prices < beginning of year inventory, but no decrease in (bred, open, or calf) heifer numbers."

Again, two possible explanations exist:

- (1) A decrease in the quality of heifers has occurred.
- (2) The average age of youngstock from beginning to end of year has decreased and thereby value per head decreased.

Check to be certain one or both of the above actually occurred (Screen 4).

3. "Change in cow values/head >\$100, change = \$_____."

The upward or downward movement in dairy cow market prices was greater than \$100 per head. Check to see if this actually occurred as a result of:

- (1) An increase or decrease in quality of animals.
- (2) A change in market conditions from beginning to end of year.

Check to be certain one or both of the above occurred (Screen 4). If the beginning of year values taken from last year's end of year inventory were incorrect, make the change in beginning of year values so as to accurately reflect the market at the beginning of the year being analyzed.

3. "Number of leased dairy cows > 0 but cattle lease expense = \$0."
An inconsistency may exist. Check to see if cattle were leased (Screen 4) and if lease payments were entered correctly (Screens 10 and 13). Cows may in fact be rented from others or boarded for others. In this situation, do not report cows as leased, but enter the rental expense on Screen 13 and total average numbers, including rentals, on Screen 6.
3. "Livestock appreciation is < \$0, = \$_____."
Livestock values fell from beginning to end of year (Screen 4). Check to make certain this occurred.
3. "Livestock appreciation > change in inventory, = \$_____."
The majority of the increase in total livestock inventory resulted from price increases and not growth or quality improvement of the herd (Screen 4). Check to see if this is accurate.
3. "Expansion livestock expense > \$0 but no increase in dairy cow numbers."
An inconsistency exists. If herd size did not increase from beginning to end of year, cattle purchases were not for increase of herd size. Cattle purchases should be entered under "Replacement Livestock" on Screen 13.
An exception to the above is the purchase of youngstock/bred heifers in anticipation of a herd size increase. If this is the situation, disregard the diagnostic.
3. "Dairy cow numbers decreased _____ and dairy cattle sales < \$400/head."
The revenue from dairy cattle sales is divided by the number of cows by which herd size decreased and this diagnostic is printed if the result is less than \$400 per head.
Did dairy cow numbers decrease (Screen 4) and, if so, were the prices received for cull cows low or did a higher proportion of cows die, or was the sales revenue not accurately reported (Screen 13)? Check the accuracy of input data.
3. "Dairy cow end year inventory at beginning prices > beginning year inventory but no increase in dairy cow numbers."
Quality of cows increased from beginning to end of year (Screen 3). Check to see if this is accurate.
3. "Dairy cow end year inventory at beginning prices < beginning year inventory but no decrease in dairy cow numbers."
Quality of cows decreased from beginning to end of year (Screen 3). Check to see if this is accurate.
3. "Number of cows = 0, total value = \$x." (Where x > 0)
"Number of cows = x, total value = \$0." (Where x > 0)

(Also for heifers and bulls and other livestock.)

There is missing data. If number of livestock is entered there must be a corresponding value for those livestock. If a value for livestock is entered, the number of livestock must be entered.

REAL ESTATE INVENTORY

3. "Real estate appreciation > 0.05 of beginning + value added or < 0."

Real estate appreciation is greater than expected in "normal" circumstances or is negative (Screen 5). Real estate values may have not been changed for several years and this year's change reflects more than one year's increase. If this occurred, change the beginning of year value to accurately reflect beginning of year value.

3. "Lost capital > 0.50 of real estate purchased = _____."

Lost capital is greater than "normally" expected (Screen 5). Small capital improvements may not add to the market value of the property and, therefore, lost capital could be equal to the total cost.

3. "Land and building inventory > \$30,000 but no land is owned."

Implies ownership of buildings, but no land (Screens 5 and 7). Check to see if this is accurate. The operator could rent or lease a farm, but own improvements or real estate consistent with the terms of the contract. If the farm is a partnership or corporation, check to determine if assets are recorded consistent with expenses.

3. "Land is owned but no beginning land and building inventory value."

If land is owned, a market value was not entered (Screen 5). Land owned may have incorrectly been entered. The above stated possibilities should also be explored.

3. "Building depreciation > 4% of beginning real estate."

Building depreciation is greater than "normally" expected (Screen 5). Check to see if machinery and equipment or livestock depreciation was incorrectly included. Large investments in new buildings may justify depreciation in excess of four percent.

3. "Real estate inventory value added < \$0."

Lost capital exceeds the value added from new real estate purchases (Screen 5). At worst, this should be \$0. Check to be certain data entry is correct.

LIVESTOCK AND BUSINESS DESCRIPTION

5. "Number of bulls and other livestock inconsistent with livestock inventory." (When number = 0 and inventory > 0, or number > 0 and

inventory = 0)

Data entered on Screens 4 and 6 are inconsistent with respect to other livestock. Check data collected and entered for accuracy.

5. "Milk per cow = n pounds." (When $n < 8,000$ or $n > 20,000$)

Pounds milk sold per cow is outside the "normal" range. Check to see if average cow numbers and pounds of milk sold (Screen 6) are entered correctly. Check butterfat content to see if a non-Holstein herd is being analyzed.

5. "Milk per worker = n pounds." (When $n < 200,000$ or $n > 700,000$)

Milk sold per worker is outside the "normal" range. Check to see if months of labor (Screen 7) and milk sold (Screen 6) are entered correctly.

5. "Average number of dairy cows at least 25% more than total at end, owned and leased."

Implies a significant reduction in herd size from beginning to end of year which occurred close to year end (Screens 4 and 6). Check to see if this is correct.

5. "Average number of dairy cows at least 25% less than total at end, owned and leased."

Implies a significant increase in herd size from beginning to end of year which occurred close to year end (Screens 4 and 6). Check to see if this is correct.

5. "Invalid business description."

One or more of the coded business descriptions (Screen 6) are out of acceptable range. Check data entry.

LABOR

5. "Single proprietorship but operators labor = n months." (When $n > 12$)

Single proprietorship category was checked on Screen 6, but more than one operator was recorded on Screen 7. A single proprietor in the majority of instances would have only one operator, the other should be reported as family unpaid. An exception to this would be when a second person is significantly involved in the day-to-day management of the business, then this person would be entered as Operator #2.

5. "Hired labor expense but no hired labor."

Hired labor expense was recorded on Screen 13 but no months of hired labor were recorded on Screen 7. Check to be certain these two entries are consistent. Example: labor hired off farm to repair a roof should be reported as land, building, and fence repair, not as hired labor. If the farm is a partnership or

corporation, check the labor inventory against business organization for consistency.

5. "Hired labor but no hired labor expense."

Hired labor months were recorded on Screen 7 but no expense on Screen 13. These two entries should be consistent. Example: Hired labor was paid with milk, beef or other farm products. Add the value of the products to receipts (Screen 12) and then count it as an expense (Screen 13). If the farm is a partnership or corporation, check the labor inventory against business organization for consistency.

5. "Partnership or corporation but operator labor is \leq 12 months."

Partnership or corporation operator labor input is "normally" expected to be greater than 12 months. Check to see if labor input (Screen 7) is correct.

LAND AND CROPS

5. "Land is rented but rental expense = \$0."

Land is rented (Screen 7) but real estate rent/lease is \$0 (Screen 13). Check to see if this is correct. Example: If land rent is paid with a portion of crop, report that value as a crop sale and as a rent payment.

5. "There are less than two tillable acres per cow."

Land is very limited. Check to see if feed purchases (Screen 13) reflect low levels of farm grown feeds. Check to see if all owned and rented land has been omitted (Screen 7).

5. "Hay crop yield is < 2 or > 4 tons DM per acre. Yield is _____."

Hay crop yield is outside the "normal" range. Check to see if a large number of acres of new seeding were established, poor weather or good weather existed. Also check acres in hay for accuracy (Screen 8).

5. "Corn silage yield is < 2.5 or > 7 tons DM per acre. Yield is _____."

Corn silage yield is outside "normal" range. Check to see if the dry matter coefficient and conversion are correct (Screen 8). Check acres of corn silage (Screen 8) and determine if some acres were not harvested. Check calculation of quantity harvested.

5. "Corn grain yield is < 50 or > 120 bushels per acre. Yield is _____."

Corn grain yield is outside "normal" range. Check to see if moisture conversion and/or bushel conversions were done correctly (Screen 8). Check acres in corn grain and repeat calculations of quantity harvested.

5. "Oat yield is < 40 or > 100 bushels per acre. Yield is _____."

Oat yield is outside the "normal" range. Check to see if oat acreage was reported under grain and production under forage if harvested as oatlage (Screen 8).

5. "Tons DM harvested per cow < 4 or > 12 = _____."

Tons of dry matter harvested is outside "normal" range. Check dry matter harvested calculations, cow numbers, and feed purchases for consistency.

5. "Tillable land, all acres, does not equal total tillable acres."

Calculations on Screen 7 and Screen 8 are not correct/consistent. Review the data entries for accuracy and recheck your math.

FINANCIAL LEASES

7. "Leases cattle but no lease expense."

Cattle are leased (Screen 10) but lease expense is \$0 (Screen 13). Check to be certain cattle lease is not included with machinery or real estate lease and the cattle are in fact leased, not rented.

7. "Leases equipment but no lease expense."

Equipment is leased (Screen 10), but lease expense is \$0 (Screen 13). Check to see if cattle or real estate lease includes equipment (Screen 13) and if equipment is in fact leased.

7. "Leases structures but no lease expense."

Structures are leased (Screen 10), but lease expense is \$0 (Screen 13). Check to see if cattle or real estate lease includes equipment (Screen 13) and if equipment is in fact leased.

ASSETS AND LIABILITIES

- 8 & 9. "Scheduled debt payments > 0.35 of milk sales = _____%."

Scheduled debt payments are 10 percentage points above the average (Screens 11 and 12). Check milk sales and debt payment schedule for accuracy.

- 8 & 9. "Long-term debt > 0.80 of land and building inventory."

Long-term debt is higher than "normally" expected. Check to see if data is entered correctly (Screen 11). Falling asset values may have contributed to creation of this situation as well as increased borrowing.

- 8 & 9. "Farm net worth < 0.30 of farm capital. NW = _____."

Farm net worth is lower than normal (Screen 11). Check all calculations for accuracy. Falling asset values and increased borrowing may have contributed.

8 & 9. "Debt per cow > \$3,500 = \$_____."

Debt per cow is above average. Check for accuracy of data (Screens 6 and 11).

6. "Accounts receivable < 5% of milk sales."

The December milk check may not have been included as an account receivable (Screen 9). Check to see if all accounts have been included.

8 & 9. "Intermediate term debt > total farm inventory less real estate."

Intermediate term debt is high and, in fact, greater than intermediate term assets (Screens 9 and 11). Check to see if this is correct.

8 & 9. "Principal payment exceeds liability."

If no new money was borrowed, the amount of principal paid should not be greater than the beginning year liability amount. Check to make certain the data are accurate.

8. "Long-term planned payments > long term debt."

Long-term planned payments being greater than long-term debt would be expected to occur only in the last year of the payment schedule. Check all entries for accuracy (Screen 11).

8. "Intermediate term planned payments > intermediate term debt."

Intermediate term planned payments greater than intermediate term debt would be expected to occur only in the last year of the payment schedule. Check all entries for accuracy (Screen 11).

9. "Short-term planned payments > 120% of short-term debt."

Short-term planned payments are higher than expected. Check for accuracy of entries (Screen 11).

9. "Planned reduction of operating debt > operating debt."

This is a definite inconsistency. The reduction in operating debt cannot be greater than the end of year balance (Screen 11). Check to see if interest is included.

9. "Planned reduction of accounts payable > accounts payable."

This is a definite inconsistency. The reduction in accounts payable cannot be greater than the end of year balance (Screen 11). Check to make certain interest and penalties have not been included.

8 & 9. "Liability > 0 but no scheduled payment, liability = \$_____."

Liabilities are greater than \$0 but scheduled debt payments are \$0, indicates that the payments were inadvertently omitted or, in fact, that no payments are scheduled (Screen 11). Check to make certain the data are accurate.

- 8 & 9. "Decrease in _____ liability from beginning to end year does not equal principal paid. Did refinancing occur?"

If no new money was borrowed, the decrease in the liability amount from beginning to end year should equal the amount of principal paid during the year. Check to make certain the data are accurate (Screen 11).

- 8 & 9. "Amount of money borrowed entered (_____) does not equal calculated money borrowed (_____)."

If a value was entered in the "amount of new borrowings" column (Screen 11), it should equal the calculated value for money borrowed. The formula for calculating money borrowed is: (end year liability - beginning year liability) + principal paid. Check to make certain the data are accurate (Screen 11).

RECEIPTS

10. "Milk price < \$11 or > \$15. Price = \$_____ per cwt."

Milk price is outside the "normal" range. Check to see if pounds of milk sold are under-reported (Screen 6), milk sales (gross) is over-reported (Screen 12) or a Jersey herd is being summarized (Screen 6).

10. "Tillable crop acres per cow > 4, but \$0 crop sales."

Tillable crop acres per cow are high (Screen 7) but not crop sales are reported (Screen 12). Check to see if crop yields are low (Screen 8) or inventories of feed and supplies increased (Screen 3).

10. "No dairy cattle sales."

This statement indicates that dairy cattle sales on Screen 12 is blank. Check to see if this was overlooked when gathering data or not entered in the computer.

10. "No dairy calf sales."

This statement indicates that dairy calf sales on Screen 12 is blank. Check to see if this was overlooked when gathering data, not entered in the computer or if in fact all calves were either raised or died and, therefore, no sales existed.

10. "Government receipts, other receipts or miscellaneous receipts > \$5,000."

Government receipts, other receipts or miscellaneous receipts are greater than normally expected. Verify that the entry is correct (Screen 12) and that other categories are not more appropriate.

10. "Gas tax refund in excess of \$500."

Gas tax refund is greater than normally expected. Verify that the entry is correct (Screen 12) and that other receipts have not been included here.

- 6 & 10. "Total change in accounts receivable entered as a receipt does not equal change in accounts receivable entered as an asset."

This indicates a problem in calculation or data entry as these two totals should be equal.

EXPENSES

13. "Hired labor expense < \$750 or > \$2,500 per month, = \$_____ per month."

Expenses per month for family paid and hired labor are outside the normal range. Determine if months of labor recorded (Screen 7) and labor expense (Screen 13) are accurate.

- 2 & 13. "Nondairy feed inventory or expense is >0, but no nondairy livestock in inventory."

The nondairy feed expense and inventory category should include what is fed to beef cattle, horses, chickens, sheep, etc. Check to see that dairy feed was not entered as nondairy feed.

13. "Total accrual (item) expenses are negative."

An accrual expense (Screen 13) would not likely be a negative value. Check the data for accuracy. Values in the column "Cash amount paid" cannot be negative. It is possible to have negative values in the "Change in Acct. Payable" column; however, an offsetting value in "Cash Amt. Paid" calculates to a positive accrual expense. It is possible to have negative values in the "Change in Inventory" column calculated from entries made on page 2, Screen 3. However, this indicates an increase in that inventory item and, therefore, should be offset by "Cash Amt. Paid" or "Change in Acct. Payable".

13. "Owns farm real estate but pays no taxes."

Farm real estate is owned (Screen 5) but taxes are not reported (Screen 13). Check to see if taxes were paid but not reported, paid by a third party or not paid during the year.

13. "Farm liabilities > \$0 but no interest expense, liabilities = \$_____."

Farm liabilities exist (Screen 11), but no interest expense reported (Screen 13). Check to see if special circumstances exist or if interest was in fact not paid during the year.

13. "Interest expense on Screen 13 does not equal interest payments on Screen 11."

The total farm liability interest (Screen 11) does not equal cash interest expense (Screen 13). Check to see if data was collected and entered correctly. These two totals must be identical.

13. "Cattle lease expense > \$0, but no lease information."

Cattle lease expense is reported (Screen 13), but lease informa-

tion is missing (Screen 10). Record the information on Screen 13 once the existence of an actual lease has been verified.

13. "Owns farm real estate but pays no insurance."

Farm real estate is owned (Screen 5) but no insurance expense is reported (Screen 13). Check to see if insurance expense was omitted or is included in other categories. Make certain real estate is owned.

13. "Personal withdrawals and family expenditures < nonfarm income."

This indicates that the nonfarm income could be subsidizing the farm business and, therefore, the Net Personal Withdrawals from Farm on page 7 of the Business Summary will be negative. Check to be certain this is accurate.

11. "Expansion livestock per head of additional dairy cattle = \$_____."

Check the accuracy of this value. It should be about the average cost of purchased livestock.

- 6 & 13. "Total change in prepaid expenses entered as an expense (\$_____) does not equal the total prepaid expenses change entered as an asset (\$_____).

The total change in prepaid expenses in Screen 13 does not equal the total prepaid expenses change in Screen 9. There must be a data acquisition or data entry problem.

- 9 & 13. "Total change in accounts payable entered as expense does not equal change in accounts payable entered as liability."

The total change in accounts payable on Screen 11 does not equal the total accounts payable change on Screen 13. There must be a data acquisition or data entry problem.

13. "Operating cost of producing milk is < \$8 or > \$12/cwt., = \$_____."

The operating cost of producing milk is outside the "normally" expected range. Check all operating expenses and nondairy receipts for accuracy (Screens 12 and 13) as well as total pounds of milk sold (Screen 6).

13. "Total cost of producing milk is < \$10 or > \$16/cwt., = \$_____."

The total cost of producing milk is outside the "normal" range. Check all expenses and nondairy receipts, plus interest on equity capital and value of operator's labor and management and unpaid family labor for accuracy (Screens 12, 13, and 7). Also check the total pounds of milk sold for accuracy (Screen 6).

MANAGEMENT PERFORMANCE MEASURES

- 10 & 13. "Net farm income w/o appreciation = \$n." (When n < \$10,000 or > \$50,000)

Net farm income without appreciation is outside the "normally" expected range. Review receipts and expenses especially accounts payable and receivable, depreciation, and inventory changes for accuracy.

- 10 & 13. "Net farm income w/appreciation = \$n." (When n < \$10,000 or > \$50,000)

Net farm income with appreciation is outside the "normally" expected range. Review receipts and expenses especially livestock, machinery, and real estate appreciation for accuracy.

- 10 & 13. "Labor and management income per operator < \$0 or > \$30,000 = \$_____."

Labor and management income is outside "normally" expected range. Review the cash receipts and cash expenses (Screens 12 and 13) and especially inventory adjustments and/or depreciation for real estate, machinery and equipment, livestock, and feed and supplies.

- 10 & 13. "Return to operator's labor, management, and equity capital < \$10,000 or > \$50,000."

Return to operator's labor, management, and equity capital is outside the "normally" expected range. Check all receipts and expenses, plus the unpaid family labor for accuracy.

- 10 & 13. "Grain and concentrate as % milk unusually low or high. Value is n%." (When n < 10% or > 40%)

Feed purchases as a percent of milk sales is outside the normally expected range. Check feed purchases (Screen 13) for accuracy, check to see if crop yields are high and/or a large number of crop acres per cow exists.

- 10 & 13. "Rate of return on equity capital w/o appreciation = n%." (When n ≤ 0% or > 10%)

This indicates a rate of return without appreciation outside the "normally" expected range. Check expenses and receipts as well as assets and liabilities for accuracy.

- 8, 9, 10 & 13. "Cash flow imbalance (error) is > 1% of total cash inflows."

The cash flow imbalance is greater than can be accepted. Check the family withdrawals and family expenditures calculations for accuracy; remember income and social security taxes are considered personal withdrawals and family expenditures. Check principal payments as well as new borrowings for accuracy. Also consider gifts and inheritances as possible sources of discrepancy.

6, 8, & 9. "Debt to asset ratio < 0.3, = _____."

Debt to asset ratio is very low. Check asset values and liabilities for accuracy.

8,9,10, & 13. "Cash flow coverage ratio < 0.8 or > 1.2."

Cash flow coverage ratio is outside "normal" range. Check receipt and expense items as well as debt payments made for accuracy.

8, 9, 10, 13. "Cash inflow = \$n, cash outflow = \$n, imbalance = \$n"

These values are printed for all farms.

CROP EXPENSES

14. "Sum of fertilizer and lime expenses for hay crop and corn is > farm total for all crops."

The allocation of expenses among crops is not accurate (Screen 14). Check the allocations.

14. "Sum of seed and plant expenses for hay crop and corn is > farm total for all crops."

The allocation of expenses among crops is not accurate (Screen 14). Check the allocation.

14. "Sum of spray and other expenses for hay crop and corn is > farm total for all crops."

The allocation of expenses among crops is not accurate (Screen 14). Check the allocations.

14. "Total crop expenses per acre of hay crop is > \$150 or < \$20, = \$_____."

The total crop expense per acre of hay is outside the "normally" expected range (Screen 14). Check the allocation of expenses to hay and compare with yields to see if a deviation is justified. Also check acreage for accuracy.

OTHER

"Farm coded irregular" - A farm is coded irregular when data is incomplete, missing or judged to be inaccurate.

"Farm coded part-time" - A farm is coded part-time when operator months are less than six months and total labor months are less than 12.

"Farm coded renter" - A farm is coded renter when no tillable land is owned or the real estate inventory at end year = 0.

"Farm coded cash-crop" - A farm is coded dairy-cash crop when cash crop sales amounted to more than 10 percent of accrual milk sales.

APPENDIX A

**HOW TO COMPLETE DAIRY FARM BUSINESS SUMMARY
DATA CHECK-IN FORMS**

HOW TO COMPLETE DAIRY FARM BUSINESS SUMMARY DATA CHECK-IN FORMS

Screen 1. Cooperator's Name and Address (page 1)

Fill in the name of the operator(s) of the farm business, the farm name if there is one, the address, and the county's record project in which he or she is participating. The processing number will be assigned at Cornell if the data are to be entered on the computer at Cornell. If entering the data in the county, use the list of processing numbers provided by Cornell to assign numbers to new cooperators and to confirm numbers used for continuing cooperators.

Please indicate if a farm is to be coded "irregular" at the top of the check-in form. An "irregular" farm has missing or inaccurate data and will not be included in the county, regional, or state summary.

Worksheet 1. Machinery and Equipment Purchased (page 1)

The only item from this section required to complete a farm business summary is the total machinery and equipment purchased. Worksheet 1 is included to provide a workplace for the operator, manager or managers to calculate this information. If prior to completion of the check-in forms the farm business has an accurate, up-to-date machinery and equipment inventory there is no particular need to copy that information onto Worksheet 1.

If completion of the worksheet is required, list all new or used machinery and equipment acquired during the year and the "boot" amount paid or obligated to pay on each item. List the market value of items traded-in and make the inventory checks in order to substantiate beginning and end inventory values. Check reported capital expenditures with the inventory book for the business. New items should be inventoried at "boot" plus market value of trade-in less first year's depreciation. Loss or increase in market value may occur from date of purchase to year end. Adjust year end value recorded in inventory to represent year end market values of machinery and equipment purchased. Make sure traded items are removed from this year's inventory. Do not include any leased items. We will assume the list of capital purchases and dollar amount reported here are correct and it will take precedence over other lists that may be included in the record.

Worksheet 2. Machinery and Equipment Sold or Destroyed (page 1)

List machinery and equipment that was disposed of by outright sales and items that were destroyed by fire, flood, and other disasters. Do not list items traded-in here. Report insurance received from machinery destroyed and check to see that all dispositions are removed from the end inventory. Add insurance received from machinery destroyed to total machinery and equipment sold and enter the total in Screen 2.

As with the machinery and equipment purchased, only the total machinery and equipment sold (including insurance proceeds) is required to complete a business summary; consequently, if the farm records are complete and accurate, Worksheet 2 is not needed for input and need not be used.

Screen 2. Machinery and Equipment Inventory and Depreciation (page 1)

The information to be collected in this section is required to calculate the ownership costs incurred in maintaining an inventory of owned machinery and equipment and to calculate the increase (or possibly decrease) in the value of the machinery complement resulting from changes in the price level of farm machinery and equipment. The fixed cost of maintaining the equipment inventory is charged as a business expense while machinery appreciation is credited toward the ownership income of the farm business.

Probably the most difficult information to obtain in this section is the beginning and end-of-year inventory. If this cooperator had a business summary the previous year, the end of the year inventory is the beginning of year inventory for this year. The cooperator then must inventory and determine the market value of machinery and equipment as of December 31 of the year for which you are summarizing. Do not include any leased items.

Machinery and equipment purchased and machinery and equipment sold are the totals from Worksheets 1 and 2 discussed above. If an alternative source of complete information for purchases and sales is available, it is not necessary to complete Worksheets 1 and 2.

Machinery and equipment received from "Noncash Transfer to Farm" is entered in Screen 2. Include machinery and equipment received as a gift/inheritance or converted from nonfarm to a farm business asset.

The next item is machinery and equipment depreciation as calculated for tax purposes. This value is used as the charge against the farm business for the use of the machinery and equipment complement. It is obtained by taking 1993 regular tax depreciation, excluding buildings and cattle from ACRS and MACRS depreciation. Including the Section 179 expensing allowance could bias depreciation upward. Excluding it could bias depreciation downward. Include it if used on a regular, ongoing basis. Exclude and convert to annual depreciation if used on an irregular, occasional basis.

End-of-year inventory less the total beginning inventory after changes is equal to machinery appreciation. This value is then used as the contribution toward ownership income from machinery and equipment.

If machinery appreciation appears to be too high or too low given changes in prevailing machinery and equipment prices during the year, one might consider some of the following possible causes:

If change in inventory due to price appears to be too high, check the following possible causes:

- a) There are more new items in the inventory book than listed as capital purchases.
- b) New items were not depreciated this year or were valued at "list price" rather than at a value based on cost.
- c) Trade-ins and other dispositions were not removed from book.
- d) Machinery was revalued upward during the year and beginning inventory was not adjusted in the same direction.

If change in inventory due to price appears to be too low, check these possible causes:

- a) New items were not all listed in inventory book.
- b) Items acquired through trade were not valued correctly.
- c) Items no longer in use were removed from end inventory or devaluated without corresponding changes to beginning inventory.
- d) Machinery was revalued downward during the year and beginning inventory was not adjusted in the same direction.

Worksheet 3. Grown Feed Inventory Worksheet (page 2)

This worksheet is used to calculate the grown feed inventory at the beginning and end of year. Include only feed and supplies grown or produced by this farmer. Space is provided to enter quantities of the various grown feeds, their market value per unit, and the calculated market value for each grown feed. The total values of the grown feeds at beginning and end of year need to be calculated and entered in the appropriate spaces in Screen 3. The change will be computed and will appear on Screen 12 as a change in crop inventory. Inventory growth will produce a positive change or increase in crop receipts.

If winter wheat is grown, be sure to include in grown feed end-of-year inventory (Worksheet 3) the value of the crop based on the cost incurred in growing it.

Screen 3. Feed and Supply Inventory (page 2)

Report beginning and end market values of purchased feeds and supplies in Screen 3. Workspace is provided for the quantity and market value per unit for the purchased feed and supply categories to assist in the calculation of the total value for each item at beginning and end of year. Of course, if an accurate accounting was made for the previous year, the end-of-year inventory should be used for the beginning-of-year inventory for this year. The beginning-of-year data is not optional; it is required.

Purchased dairy grain and concentrate inventory should include the concentrate, minerals, protein, and grain for the dairy herd including heifers, calves, and bulls. Non-dairy feed inventory includes all feed purchased for livestock such as horses, beef cattle, sheep, chickens, etc.

Some year-end purchases made by farmers are payments made for the next year's feed and supplies. The feeds or supplies purchased with these payments must be identified to make them legal tax deductions. Therefore, these are purchases of inventory items (Screen 3), they are not prepaid expenses (Screen 9).

Unused silage bags should be entered as supplies in the "land/bldg./fence" category.

The footnote for Screen 3 explains how inventory changes are computed and their effect on accrual expenses.

Screen 4. Livestock Inventory (page 3)

Report all leased dairy cows at end of year in the space provided. This number will be added to owned dairy cows at end of year when computing debt levels per cow.

For owned livestock, this section is used to obtain information on the inventory of livestock at the beginning and end of the year and to separate the change in inventory during the year into the change (a) that results from changes in numbers and/or qualities of livestock and (b) that result from price changes during the year. The screen is designed to help inventory the livestock by categories. The heifer inventory allows space for three categories: bred heifers, open heifers (6 months to breeding), and calves (under six months). The information required is the number and value at the beginning of the year, the number and value at the end of the year using beginning-of-year prices, and the value at the end of the year using end-of-year prices. The value per head columns are calculated. If you prefer, the values per head may be entered and the total value columns will be calculated.

The quantity and value for beginning-of-year inventory can either be taken from last year's end-of-year inventory if accurate information is available or can be calculated based on the livestock on hand and the value per head at the beginning of the year.

The end-of-year inventory is more complex since the livestock numbers at the end of the year need to be valued both at beginning-of-year prices and at end-of-year prices in order to separate the increase in inventory into two parts. Unless large numbers of animals have been purchased of a different quality or the composition of the animals in the group has been altered significantly during the year, the value per head using the beginning-of-year prices is the same as the value per head in the beginning-of-year inventory. Situations which could result in the value per head in the beginning-of-year inventory and the value per head using beginning-of-year prices for the end-of-year inventory being different include: 1) the purchase of a large number of animals of higher quality than those previously in the herd, and 2) the average age of calves in the end inventory being two or three months more than those in the beginning inventory. Finally, the end-of-year inventory at end-of-year prices is the same number of head as for the end-of-year inventory at the beginning-of-year prices times the value per head based on the market price of the livestock on December 31 of the summary year.

Worksheet 4. Land and Buildings Purchases and Sales (page 2)

In this section, only the totals for cost and lost capital of new purchases and capital improvements, and sale price/amount received of capital sales and losses are required. If the cooperator has an accurate record of his or her real estate transactions, these totals can be taken from that record; if the cooperator does not, Worksheet 4 can be used to assist in calculating the totals.

Screen 5. Real Estate Inventory Balance (page 3)

This section must be completed to confirm changes in the market value of real estate during the year.

- a) Report the beginning-of-year market value (previous year's end-of-year value) net of estimated sale expenses.

- b) Enter the cost of new purchases and capital improvements for land and buildings and subtract lost capital. Value added (the difference between cost of new real estate and lost capital) is that proportion of the new investment that adds to the market value of the farm.

Enter the value of real estate that has come into the farm business during the year from gifts/inheritances and from conversion of nonfarm real estate to farm real estate.

- c) Building depreciation from 1993 tax return is used as an estimate of a total building depreciation charge for the year. Be sure to include depreciation on single purpose agricultural structures, grain bins, fences, tile, and silos as well as general purpose buildings.
- d) Deduct the net sale price of real estate sold. For example, a five acre lot sold for \$25,000 with \$1,000 of sale expenses and a mortgage of \$15,000 held by the seller would be entered as follows:

<i>Real Estate Sold: Total sale price</i>	<i>\$25,000</i>	
<i>Sale expenses</i>	<i>- 1,000</i>	
<i>Net sale price</i>		<i>- \$24,000</i>
<i>Note/mortgage held by seller</i>	<i>- 15,000</i>	
<i>Net cash amt. rec'd. in 1993</i>	<i>= 9,000</i>	

The "note/mortgage held by seller" of \$15,000 must be entered as an "Other Nonfarm Asset" in Screen 9, page 6. If the seller is not the mortgage holder, there would be no entry in the "note/mortgage held by seller" space and the "Net cash amount received in 1993" would then equal \$24,000.

The calculated value, "net cash amount received in 1993", is a cash inflow to the farm. If part or all of this was converted to nonfarm, include that amount as a "personal withdrawal and family expenditure" in Screen 13.

- e) Beginning market value plus value added from real estate purchased, minus depreciation and the value of sales, equals total beginning value after changes.
- f) End-of-year market value (net of estimated sale expenses) less the total beginning value after changes is equal to real estate appreciation.

Screen 6. Livestock and Business Description (page 5)

The average number of cows for the year is a key factor. It can be taken from the DHIA or other herd testing records. It is the average number of cows in the herd each month totaled and divided by 12. It includes dry cows as well as cows in milk. It includes leased cows. It is not an average of beginning and ending inventory numbers. Also report the average number for year of dairy heifers and bulls. If the data are being entered on a computer in the county, enter the work units for other livestock. Use Table 1, page 17 of the Micro-DFBS User's Manual as a guide.

Total pounds of milk sold is the total weight reported by the milk plant. Average milk plant test is not used to convert to a 3.5 equivalent. It is used as a reference only.

Check the appropriate item under Production Record, Milking System, Business Type, Milking Frequency, Dairy Housing, and Primary Financial Recordkeeping System.

Under production record, if DHI or Owner-Sampler are checked, enter the 6-digit DHI number. Providing the DHI number allows possible coordination with the Animal Science Department by combining DHI and DFBS data. If DHI data were used, no individual farm data would be identified. Providing the DHI number does not provide DHI or Animal Science people access to DFBS data.

Under milking frequency, check "2x/day" if all cows were milked twice a day for the entire year; check "3x/day" if all cows were milked three times a day for the entire year; or, check "other" if a portion of the herd was milked three times a day or the total herd was milked three times a day for part of the year.

Screen 7. Labor Inventory (page 5)

Begin by identifying the operators of the farm. Operators should include all individuals who are integrally involved in the operation and management of the farm business. They are not limited to those who are the owner of a sole proprietorship or are formally a member of a partnership or corporation. In instances where a husband and wife operate and manage the farm as a team both may be included as operators. The labor input of each operator should then be specified in months. In most instances, this is 12 months but in some instances where one or more operators of the farm business have other work occupying their time, such as operating an off-farm enterprise, directing a farm organization or managing of the family; less than 12 months would be appropriate. In addition, for each operator, indicate their age, their years of education, and the estimated value of their management and labor input. This value should be based on what that person could earn in a similar capacity in similar employment. Any farm expenses for labor or perquisites for these operators should be excluded from the labor expenses entered later in the input. This exclusion will probably be most relevant for corporations but may also apply to other businesses.

In addition, the total months of family labor who are paid, the months of family labor not paid, and the total full-time months of hired labor should be recorded. The full-time months can then be totaled and divided by 12 to determine the worker equivalent.

The conversion to full-time, worker-month equivalents is necessary; conversion is not always easy but is very important to an accurate summary. A high school student may provide three months of worker-month equivalent labor during the 10 month school year by working part-time. Convert hourly labor on the basis of 230 hours per month. There are 4.3 weeks in a month. Below is a formula for converting hours per week to full-time months:

$$\text{Full-time months} = \frac{\text{No. hours/week} \times 4.3 \text{ weeks/month} \times \text{No. months worked}}{230 \text{ hours}}$$

Screen 7. Land Inventory (page 5)

The purpose of this section is to obtain a complete accounting of the owned and rented acreages included as a part of this farm business. First, the tillable acres owned and rented should be entered. Tillable acres should include all acres that normally are cropped, either in row crops, hay crops, or cropland pasture. Pasture acres owned and rented should include all acres of pasture that are not cropland. Nontillable woodland and other acres owned would then be

included and the three would add to total acres owned, rented and to the total acres in the farm business.

Screen 8. Tillable Land Use (page 5)

The purpose of this section is to obtain a complete accounting of the tillable acres in the farm business and an accurate record of the cropping program of the farm business. This record is an essential part of the business summary.

The forage crops should be separated into hay, hay crop silage, corn silage, and other forage crops harvested (could include green chop, small grain silage, and sudan/sorghum silage). Enter only the first cut acres for all hay crops on the first line. The measure of production of the roughages is the total tons of dry matter. The intermediate columns of total production and percent dry matter are used to assist in calculating the total tons of dry matter. Total production of all hay crops are divided into dry hay and hay crop silage. The total production of corn for grain, oats, and wheat should be reported on a dry bushel equivalent. Worksheet 5 is included on the opposite page for conversion of corn to a dry shelled basis.

Clear seeding acres should be entered under hay unless another crop is grown on those acres and considered the major crop in which case the acres are entered with the major crop. Acres used to grow winter wheat should be entered with the crop grown during the regular growing season.

After the acreages and production of the harvested crop enterprises have been reported, the acres of tillable cropland included in pasture and the acres of idle tillable cropland should be recorded. Check the box next to tillable pasture if rotational grazing or intensive pasture has been used at least three months of the year, changing the paddock at least every three days. When the same field is used for both hay crop and pasture, allocate the acreage between hay crop and pasture according to its estimated share of dry matter produced from the field. For example; if hay crop silage was harvested from a 20 acre field on May 30th and the field was rotational grazed for the rest of the season, approximately the same quantity of dry matter was grazed as was ensiled. Allocate 10 acres to hay crop and 10 acres to pasture. Do not include pasture production in total production from hay crop.

The total of all of the acres in each of the enterprises should be the total tillable acres. This total should then be compared to the total tillable acres recorded above in the land inventory. Furthermore, if this cooperator was in the summary the previous year and has not had a change in owned or rented acres, the tillable acres should be exactly the same as they were in the previous year.

Screen 9. Farm Family Financial Situation - Assets (page 6)

The assets section of the Farm Family Financial Situation requires entry of all farm and nonfarm assets for beginning and end of year. Total farm inventory is calculated from the previously-entered inventory sections. If a cooperator had a business summary the previous year, the end-year assets are the beginning-year assets for this year.

The x_____x spaces for prepaid expenses indicates optional input; i.e., the entire concept of prepaid expenses may be ignored if you feel it has no significant affect on the profitability of the business. Items that can be inventoried (such as dairy grain, seeds, and fertilizer) should not be included

as prepaid expenses; they should be entered in the purchased feed and supply inventory, Screen 3, page 2.

Do not enter negative numbers for "Farm cash, checking & savings". If there is a negative checkbook balance, it should be considered money borrowed and included in operating debt, and a zero entered for farm cash, checking, and savings.

Nonfarm assets for partnerships and corporations should include nonfarm assets of all families in the business or none at all.

Mortgages or notes held from the sale of farm real estate should be included as "Other Nonfarm Assets".

See the footnotes at the bottom of page 6 of the check-in form for further guidelines to completing the assets section.

Screen 10. Financial Leases (page 7)

The purpose of this table is to help calculate the expenses associated with financial leases and to determine the present assets and liabilities for the leased items. Include those items for which the farmer originally had an obligation to make specific payment for more than one year. Do not include items such as: machines rented per hour or day; buildings, equipment and, cattle rented from a family member; payments on purchase contracts.

The total yearly expense is calculated by multiplying the amount of each payment times the number of payments for the year. The total yearly expenses for each item are added to get the total expense for cattle, equipment, and structures. The totals must be entered under expenses on page 13. The total expense for cattle is entered under cattle lease; the total expense for equipment is entered under machine hire, rent and lease; and the total expense for structures is entered under real estate rent/lease.

Enter the number of payments in a full year and the number of payments remaining for each item. From this information present values for assets and liabilities can be computed for the leased items.

Worksheet 6. Changes in Operating Accounts Receivable (page 7)

The purpose of Worksheet 6 is to assist in calculating the changes in operating accounts receivable and to allocate the changes to the appropriate receipt category for entry in Screen 12, page 10. If there are no operating accounts receivable other than the January milk check, it is not necessary to use the worksheet. Simply calculate the difference in the account receivable from beginning to end of year and enter that value in Screen 12 in the space for "Milk, Change in Accounts Receivable".

Note: To calculate the correct change in accounts receivable, subtract the beginning of year balance (January 1, 1993) from the end of year balance (December 31, 1993) to get the increase in accounts receivable. Worksheet 6 is designed to produce the right calculation when used correctly.

The total of the column "Balance, December 31, 1993" in Worksheet 6 must equal the value in Screen 9, page 6 for "Accounts Receivable, December 31, 1993". The total of the column "Balance, January 1, 1993" in the worksheet must equal "Accounts Receivable, January 1, 1993" in Screen 9. The totals of the "Change in Account" and "Receipt Category Amount" columns in Worksheet 6 must be equal.

They must also equal the total of the column "Change in Accounts Receivable" in Screen 12, page 10. See the bottom of page 7 of the check-in form for further guidelines to recording changes in accounts receivable.

Screen 11. Farm Family Financial Situation - Liabilities (pages 8 and 9)

The liabilities and debt payments sections of the Farm Family Financial Situation require entry of all liabilities for beginning and end of year, the principal and interest actually paid in 1993, the interest rate at the beginning of 1994, and the planned payments for 1994. If a cooperators had a business summary the previous year, the end-year liabilities are the beginning-year liabilities for this year.

The primary objective in classifying liabilities is to identify the correct term of the loan. Long-term and intermediate term loans will be analyzed separately in the summary. If more liabilities exist than there are lines for, liabilities for the same term may be combined. Do not include leased items, they are entered in Screen 10.

The "Amount of New Borrowings" column is optional input. If the amount of money borrowed in 1993 is entered, this value will be compared to the calculated value for money borrowed ((End year liability - beginning year liability) + principal paid). If the two values do not agree, a diagnostic will be printed. The calculated value for money borrowed will be used in the Annual Cash Flow Statement.

For Farm Credit liabilities, be sure the proceeds amount is entered as the liability (i.e., exclude Farm Credit stock). The amount of Farm Credit stock will be displayed under Intermediate Term Debt. These values are automatically carried over from Farm Credit stock assets entered in Screen 9, page 6.

If refinancing occurred during 1993, use of the "Amount of Debt Refinanced" column will help you arrive at more accurate values for "Amount of New Borrowings" and "Actual 1993 Principal Payments". The amount of the "old" loan refinanced should be entered as a negative number in the "Amount of Debt Refinanced" column. The "new" loan or refinanced amount added to existing loans is entered as a positive number. These entries offset each other; therefore, the total of the "Amount of Debt Refinanced" column would always be zero. The amount of debt refinanced would not be included in the "Amount of New Borrowings" or the "Actual 1993 Principal Payments" columns.

Include debt payments for all liabilities listed. If no payments are made, please enter zero. In the event of a deferred loan (except FmHA), add the interest to the end year liability, enter the interest as paid (under debt payments, Screen 11 and interest expense, Screen 13), and enter the interest amount as money borrowed. Enter the beginning 1994 interest rate and planned payments for 1994. In the case of an FmHA Deferred Loan, the unpaid interest is not converted to principal; therefore, the interest would be included as an account payable.

The total of the farm interest actually paid in 1993 (7th column) should equal the interest expense entered in Screen 13, page 13.

The "Nonfarm Liability/Payments" line includes debt incurred for all nonfarm assets purchased. For example, if a pleasure boat was purchased using debt capital, record the beginning and end of year nonfarm loan balances, amount of new borrowing for the boat, actual payments made on the boat or any other nonfarm loan during the year, and next year's planned payments. If the farmer

prefers not to record nonfarm liabilities, any new nonfarm borrowings must also be excluded from "personal withdrawals and family expenditures" in Screen 13, page 13.

See the footnotes at the bottom of pages 8 and 9 of the check-in form for additional guidelines to completing this section.

Screen 12. Summary of 1993 Receipts and Changes in Inventory and Accounts Receivable (page 10)

Record the 1993 cash receipts and changes in accounts receivable in Screen 12. The "Change in Inventory" column is calculated by the computer program from entries previously made in Screen 3 (grown feeds inventory) and Screen 4 (livestock inventory) and Screen 11 (advanced government receipts). Use Worksheet 6 on page 7 to assist in the calculation of changes in accounts receivable. The "Accrual Receipts" column is the total of the first three columns.

Enter the amount received for sale of stock and certificates other than Farm Credit stock. This value will be used in the calculation of appreciation of stock and certificates to be included as ownership income.

The section at the bottom of Screen 12 is used to record nonfarm cash inflows. The last line in Screen 12 is for noncash capital transferred to the farm business for cattle, crops, etc., excluding machinery (enter in Screen 2) and real estate (enter in Screen 5).

See the bottom of page 10 of the check-in form for further guidelines to recording the farm and nonfarm receipts.

Worksheet 7. Changes in Operating Accounts Payable (page 12)

The purpose of Worksheet 7 is to assist in calculating the changes in operating accounts payable and to allocate the changes to the appropriate expense category for entry in Screen 13, page 13. If there are no operating accounts payable, do not use the worksheet, go directly to Screen 13 on page 13. When Worksheet 7 is used, enter the end of year balance, then enter and subtract the beginning of year balance to obtain the correct change in accounts payable.

The total of the column "Balance 12/31/93" in Worksheet 7 must equal the value in Screen 11, page 9 for "Accounts Payable, December 31, 1993". The total of the column "Balance 1/1/93" in the worksheet must equal the value in Screen 11 for "Accounts Payable, January 1, 1993". The totals of the two "Change in Accounts Payable" columns in Worksheet 7 must be equal. They must also equal the total of the column "Change in Accounts Payable" in Screen 13, page 13. See the bottom of page 12 of the check-in form for further guidelines to recording changes in accounts payable.

Screen 13. Summary of 1993 Expenses and Changes in Inventory and Accounts Payable (page 13)

Record the 1993 cash expenses and changes in accounts payable in Screen 13. Be sure to include as cash expenses any items paid directly by a bank through use of a "line-of-credit". Payment on the "line-of-credit" is a reduction in the account payable to the bank. Use Worksheet 7 on page 12 to assist in the calculation of changes in accounts payable. The "Accrual Expenses" column is the total of the first three columns.

The "change in inventory or prepaid expenses" column contains both calculated values and optional input values. The change in inventory items (_ _ _ spaces) are calculated by the computer program from entries previously made in Screen 3 (purchased feed and supplies inventory). The change in prepaid expense items (x_____x spaces) are optional input (i.e., the entire concept of prepaid expenses may be ignored if you feel it has no significant affect on the profitability of the business). The total change in prepaid expenses must equal the difference between prepaid expense totals in Screen 9, page 6 (beginning year - end year).

Enter the amount spent for purchase of stock and certificates other than Farm Credit stock. This value will be used in the calculation of appreciation of stock and certificates to be included as ownership income.

Enter all personal withdrawals and family expenditures in the space provided at the bottom of Screen 13. Do not skip this entry. It is necessary for the Annual Cash Flow Statement to balance and also for an accurate Cash Flow Coverage Ratio to be calculated. Include all cash withdrawals plus all additional nonfarm expenses paid with farm cash or from farm accounts, e.g., income tax, self-employment tax, life insurance, and wages of corporate owner-operators. Include withdrawals used for nonfarm loan payments, savings, and investments as well as family living expenses. Include borrowed capital used for nonfarm purchases, providing it has been entered as a nonfarm liability in Screen 11, page 9. E.g., if a pleasure boat was purchased using debt capital, in the year of purchase the amount borrowed and any payments made during the year must be included as a family expenditure. If any or all "Nonfarm Cash Income" has been excluded from the value entered in Screen 12, page 10, you must also exclude any family expenses paid from that income.

See page 11 of the check-in form for further guidelines to recording farm expenses.

Screen 14. Optional Input (page 14)

Breakdown of 1993 Crop Expenses by Crop

In most cases it is possible to identify on which crop large purchases of inputs were used. Use field records, and dates and descriptions for large transactions.

Record the breakdown of crop expenses for hay crop, corn, pasture, and other crops in the top section of Screen 14. The "Total" line at the bottom of the screen must equal the accrual expenses on Screen 13, page 13, for fertilizer and lime, seeds and plants, and spray and other. Calculate the accrual expense for these three crop expense categories on Screen 13 by totaling "Cash Amount Paid" + "Change in Inventory" + "Change in Accounts Payable". The "Change in Inventory" values are calculated from the beginning and end year inventory values in Screen 3, page 2 (beginning year minus end year = change in inventory).

The computer program will display on Screen 14 the total accrual expenses for the crop expense categories from Screen 13 at the time of data entry. The "All other crops" line will be calculated using the accrual expense totals less the values entered in the first three lines of the screen for hay crop, corn, and pasture.

Unless you have a better basis for allocation, allocate lime expenses proportionately across all crop acres, to allow for the fact that benefits extend to crops grown in future years, not just the first year. Charge fertilizer,

chemical, and seed costs to the crop applied to. Of course, fertilizer and chemicals can have carryover effects on future crops as well, but in most cases, it would be impossible to accurately allocate these carryover effects.

Optional Input for Deferred Tax Calculations

A balance sheet including deferred taxes can be printed for those farms that are able to complete this section of Screen 14. It is assumed that (1) farm assets not listed in this section will not significantly influence deferred tax liability, and (2) all gain on machinery and purchased livestock is ordinary gain. Enter tax basis information for assets previously entered in inventory. Enter market values for operator residences; single purpose livestock structure, silos, and grain bins; and, purchased livestock. Enter proprietorship and partnership information. Spousal partners filing a joint tax return must combine their ownership in one column. The partner's percent share of farm adjusted gross income must include current cattle sales as well as Schedule F net farm profits. The partner's percent ownership of nonfarm assets must be based on only those included in Screen 9.

APPENDIX B

**DFBS
DATA CHECK-IN FORM**

CORNELL COOPERATIVE EXTENSION
DAIRY FARM BUSINESS SUMMARY
DATA CHECK-IN FORM

		SCREEN 1.
Name _____	County _____	
Farm Name _____		
Address _____		
Phone no. _____	Proc. number _____	Year 1993
	() complete, () entered, () ready	
	Update Screens: _____	

WORKSHEET 1. MACHINERY & EQUIPMENT PURCHASED

Description	Amount or boot paid ⁺	Market value of trade-in ⁻	Market value of new item ¹	Inventory Checks (/) Remove trade-in	Add new item
_____	\$ _____	\$ _____	\$ _____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
TOTAL MACH. & EQUIP. PURCHASED	\$ _____				

¹Loss in market value may occur from date of purchase to year end. Adjust year end value recorded in inventory to represent year end market values of machinery and equipment purchased.

WORKSHEET 2. MACHINERY & EQUIPMENT SOLD OR DESTROYED (not trade-ins)

Description	Sale Amount	Insurance Received	Removed from Inventory?
_____	\$ _____	\$ _____	_____
_____	_____	_____	_____
_____	_____	_____	_____
TOTAL MACHINERY & EQUIPMENT SOLD	\$ _____	+	\$ _____ - \$ _____

		SCREEN 2.
<u>MACHINERY & EQUIPMENT INVENTORY & DEPRECIATION</u> (do not include leased items)		
Beginning of Year Inventory	\$ _____	End of Year Inventory \$ _____
Machinery & Equipment Purchased	+ _____	
Noncash Mach. Transfer to Farm (e.g., gifts/inheritances)	+ _____	
Machinery & Equipment Sold	- _____	
1993 Tax Depreciation ²	- _____	
Total Beginning Inventory After Changes		\$
Machinery Appreciation (end less beginning after changes)		\$

²Exclude buildings and cattle from ACRS depreciation.

Note: This form has 4 kinds of spaces in the boxed-in "Screen" areas: _____ are required input, are calculated values, x _____ x are for optional input, and are workspace. All sections entitled "Worksheet" are optional.

Name _____

[Proc. no. _____]

WORKSHEET 3. GROWN FEED INVENTORY WORKSHEET

Use this worksheet to calculate beginning and end of year values of all grown feeds. Enter totals in Screen 3 below.

Item	January 1, 1993		December 31, 1993	
	Quant.	\$ per Unit - Total Value	Quant.	\$ per Unit - Total Value
GROWN FEEDS:				
Corn-HMSC	_____	\$ _____	_____	\$ _____
Corn-HMEC	_____	_____	_____	_____
Corn-dry, _____	_____	_____	_____	_____
Oats	_____	_____	_____	_____
Wheat	_____	_____	_____	_____
Other _____	_____	_____	_____	_____
Dry hay	_____	\$ _____	_____	\$ _____
Hay crop silage	_____	_____	_____	_____
Corn silage	_____	_____	_____	_____
Other _____	_____	_____	_____	_____
		Total		Total

FEED & SUPPLY INVENTORY				SCREEN 3. Inventory Change¹	
Total Grown Feeds		\$ _____		\$ _____	\$ _____
PURCHASED FEEDS: (use p.11 definitions)					
Dairy grain & conc	..... x.....	=\$ _____	..... x.....	=\$ _____	_____
Dairy roughage	.....	_____	.....	_____	_____
Nondairy feed	.....	_____	.....	_____	_____
SUPPLIES:					
Machine: Parts	..... x.....	=\$ _____	..... x.....	=\$ _____	\$ _____
Fuel, oil, grease	.....	_____	.....	_____	_____
Livestock: Semen	.....	_____	.....	_____	_____
Vet. supplies	.....	_____	.....	_____	_____
Other supplies	.....	_____	.....	_____	_____
Crops: Fertilizer	.....	_____	.....	_____	_____
Seeds	.....	_____	.....	_____	_____
Pesticides/Other	.....	_____	.....	_____	_____
Land/Bldg./Fence:	.....	_____	.....	_____	_____
Other:.....	.....	_____	.....	_____	_____
Total Feed & Supplies		\$ _____		\$ _____	

¹Inventory changes are calculated: total grown feeds = end year minus beginning year and is carried over to Screen 12; purchased feeds and supplies = beginning year minus end year, and are carried over to Screen 13.

WORKSHEET 4. LAND & BUILDING PURCHASES & SALES

New Purchases & Capital Improvements			Sale Price or Amount Received	
Description	Cost	Lost Capital	Description	Received
Land: _____	\$ _____	xxxxxxx	Capital Sales:	\$ _____
		xxxxxxx		
Total Land Purchases	\$ _____			
Buildings & Land Improve.²	\$ _____	\$ _____	Losses:	\$ _____
Total Buildings & Lost Capital	\$ _____	\$ _____	Total Capital Sales & Losses	\$ _____

²e.g., new fences, tile drainage, farm ponds.

Name _____ [Proc. no. _____]

Cow no. check: _____ - _____ + _____ + _____ - _____
 cows year end cows beg. year heifers fresh cows purch. sold,died,etc.

LIVESTOCK

SCREEN 4.

Number of leased/rented dairy cows at end of year _____

	Jan. 1, 1993 Inventory		December 31, 1993 Inventory Using:						
			1/1/93 Prices			12/31/93 Prices			
	No.	\$ per Head	Total Value	No.	\$ per Head	Total Value	No.	\$ per Head	Total Value
Dairy Cows:.....	_____	\$_____	\$_____	_____	\$_____	\$_____	_____	\$_____	\$_____
.....	_____	_____	_____	_____	_____	_____	_____	_____	_____
Total Dairy Cows	----		\$-----	----		\$-----			\$-----
Heifers:									
Bred Heifers	_____	\$_____	\$_____	_____	\$_____	\$_____	_____	\$_____	\$_____
Open (6 mo. - bred)	_____	_____	_____	_____	_____	_____	_____	_____	_____
Calves (< 6 mo.)	_____	_____	_____	_____	_____	_____	_____	_____	_____
Total Heifers	----		\$-----	----		\$-----			\$-----
Bulls & Other Lvstk.:									
.....	_____	\$_____	\$_____	_____	\$_____	\$_____	_____	\$_____	\$_____
.....	_____	_____	_____	_____	_____	_____	_____	_____	_____
Total Bulls & Other Livestock	----		\$-----	----		\$-----			\$-----
Total Livestock	----		\$-----	----		\$-----			\$-----

Explain change in livestock value per head from beginning of year to end of year at beginning of year prices: _____

REAL ESTATE INVENTORY BALANCE

SCREEN 5.

Land & Building Market Value:	Beginning \$_____	End \$_____
New Real Estate:		
Purchased: ¹ \$_____ + \$_____ - \$_____ = +\$_____		
land bldgs./land imp. lost capital value added		
Noncash Real Estate Transfer to Farm (e.g. gifts/inherit.)	+_____	
Depreciation: from 1993 income tax (Include bldgs. in pre-ACRS, ACRS, MACRS & ADS)	-_____	
Real Estate Sold: Total sale price	\$_____	
Sale expenses	-_____	
Net sale price	-_____	
Note/mortgage held by seller	-_____	
Net cash amt. rec'd. in 1993 = ² _____		
Total Beginning Value After Changes		\$-----
Real Estate Appreciation		\$-----

¹Use Worksheet 4, page 2. ²Calculated value is a cash inflow to the farm. If part or all of this was converted to nonfarm, include that amount in "personal withdrawals & family expenditures" (Screen 13, page 13).

WORKSHEET 5. CORN GRAIN CONVERSION WORKSHEET

	Percent Moisture	Tons as Harvested ¹	Conversion Factor ²	Dry Shell Equivalent
Ear Corn:	_____ %	_____ T +	_____ -	_____ bushels
	_____ %	_____ T +	_____ -	_____ bushels
Shell Corn:	_____ %	_____ T +	_____ -	_____ bushels
	_____ %	_____ T +	_____ -	_____ bushels
Total (enter on Screen 8, page 5)				_____ bushels

¹Use Table 1 below.²Use Table 2 below.

TABLE 1. TOWER SILO CAPACITIES FOR HIGH MOISTURE CORN

Settled Depth	Tons High Moisture Ear Corn ³ Inside Diameter in Feet				Tons High Moisture Shelled Corn ⁴ Sealed Storage 20 Feet Diameter
	14	16	18	20	
15	47	62	78	97	113
20	65	84	107	132	154
25	83	108	137	169	192
30	102	133	168	207	235
35	121	158	200	247	274
40	142	185	234	289	320
45	163	213	269	332	360
50	185	241	305	377	407
55		271	342	423	448
60		302	381	471	498
65			421	520	
70			462	571	

³Based on 33 percent moisture content.⁴Based on 28 percent moisture content.

HMEC stored in horizontal silos will range from 40 to 42 pounds per cubic foot.

TABLE 2. CORN GRAIN CONVERSION TABLE

Percent Moisture in Kernel	Tons of Shelled Corn Needed to Equal One Bushel of Dry Shelled ⁵	Percent Moisture in Whole Ear	Tons of Ear Corn Needed to Equal One Bushel of Dry Shelled Corn ⁵
14.0	0.0275	14.2	0.0335
15.5	0.0280	16.0	0.0342
16.0	0.0282	16.6	0.0345
18.0	0.0289	19.7	0.0357
20.0	0.0296	22.6	0.0370
22.0	0.0300	25.2	0.0384
24.0	0.0312	27.9	0.0399
26.0	0.0320	30.0	0.0414
28.0	0.0329	32.6	0.0428
30.0	0.0338	34.6	0.0443
32.0	0.0348	36.4	0.0457
35.0	0.0364	39.3	0.0479

⁵One bushel of no. 2 corn at 15.5 percent moisture content.

Name _____

[Proc. no. _____]

<u>LIVESTOCK & BUSINESS DESCRIPTION</u>				SCREEN 6.
<u>Livestock</u>	<u>Avg. No. For Year</u>	<u>Production Record</u>	<u>Milking System</u>	<u>Primary Business Type</u>
Dairy cows (owned, rented & leased)	_____	___(1)D.H.I. ___(2)O.S.	___(1)Bucket & carry ___(2)Dumping station	___(1)Single prop. ___(2)Partnership
Heifers (dairy)	_____	DHI#21 _____	___(3)Pipeline	___(3)Corporation
Bulls	_____	___(3)Other	___(4)Herringbone par.	
Other:(type) [_____]		___(4)None	___(5)Other parlor	
(# head) w.u. ¹				<u>Primary Financial Recordkeeping System</u>
Lbs. milk sold _____		<u>Milking Frequency</u> ___(1)2x/day ² ___(2)3x/day ³ ___(3)Other ⁴	<u>Dairy Housing</u> ___(1)Stanchion/ Tie-Stall ___(2)Freestall ___(3)Combination	___(1)ELFAC II ___(2)Account Book ___(3)Agrifax Mail-in ___(4)On-Farm Computer ___(5)Other
Avg. milk plant test _____ % B.F.				

<u>LABOR INVENTORY</u>					SCREEN 7.
	<u>Full-Time Months</u>	<u>Age</u>	<u>Years Educ.</u>	<u>Value of Management & Labor</u>	
Operator - 1	_____	_____	_____	\$ _____	
- 2	_____	_____	_____	\$ _____	
- 3	_____	_____	_____	\$ _____	
- 4	_____	_____	_____	\$ _____	
- 5	_____	_____	_____	\$ _____	
- 6	_____	_____	_____	\$ _____	
Family (paid employees)	_____				
Family (unpaid)	_____				
Hired (regular & seasonal)	_____				
Total	_____ + 12 = _____				Worker Equivalent

<u>LAND INVENTORY</u>	<u>Acres Owned</u>	<u>Acres Rented</u>	<u>All Acres</u>
Tillable land	_____	_____	_____
Pasture (nontillable)	_____	_____	_____
Woods & other nontillable	_____	_____	_____
Total	_____	_____	_____

<u>TILLABLE LAND USE</u>					SCREEN 8.
	<u>Acres (1st cut only)</u>	<u>Total Production (all cuttings)</u>	<u>Dry Matter Coeffi- cient⁶</u>	<u>Total Tons Dry Matter</u>	
Hay Crop (1st cut acres only)	_____	_____	_____	_____	
Hay	_____	_____ tons	_____	_____	
Hay crop silage	_____	_____ tons	_____	_____	
Corn silage	_____	_____ tons	_____	_____	
Other forage harvested	_____	_____ tons	_____	_____	
Corn for grain ⁵	_____	_____ dry sh. bu.	Tot. tn DM	_____	
Oats	_____	_____ dry bu.			
Wheat	_____	_____ dry bu.			
Other:.....	_____	_____ w.u. ¹			
Tillable pasture	_____	[] Check if Rotational Grazing at least 3 months of year, changing paddock at least every 3 days.			
Idle tillable acres	_____				
Total tillable acres	_____				

¹Work units. ²All cows were milked 2x for entire year. ³All cows were milked 3x for entire year. ⁴A portion of herd was milked 3x or total herd was milked 3x for part of year. ⁵Convert to dry shelled equivalent (see tables, opposite page). ⁶Enter as decimal, e.g., 40% is entered as .4.

Name _____

[Proc. no. _____]

FARM FAMILY FINANCIAL SITUATION

SCREEN 9.

<u>ASSETS</u>		
	<u>January 1, 1993¹</u>	<u>December 31, 1993</u>
Total Farm Inventory ²	\$-----	\$-----
Other Farm Assets:		
Farm cash, checking, & savings	_____	_____
Accounts receivable ³	_____	_____
Farm Credit stock	_____	_____
Other stock & certificates	_____	_____
Prepaid expenses ⁴	x_____x	x_____x
Total Farm Assets	\$-----	\$-----
Nonfarm Assets: ⁵		
Personal cash, checking & savings	_____	_____
Cash value life insurance	_____	_____
Nonfarm real estate	_____	_____
Personal share auto	_____	_____
Stock & bonds	_____	_____
Household furnishings	_____	_____
Other (include mortgages & notes)	_____	_____
Total Nonfarm Assets	\$-----	\$-----
TOTAL ASSETS (not including leases)	\$-----	\$-----

¹If you participated in the Dairy Farm Business Summary project last year, there is no need to enter the January 1, 1993 values unless a change needs to be made in the values entered last year.

²The sum of machinery inventory, livestock inventory, feed and supplies, and real estate market value for both beginning and end of year. The computer program automatically calculates this entry from earlier input.

³Remember to include the January milk check as an account receivable. The amount of accounts receivable at beginning and end of year must agree with the total accounts receivable calculated in Worksheet 6, page 8.

⁴Include any expenses that have been paid for in advance of their use. For example, 1994 rent paid in 1993. The total change in prepaid expenses (beginning year minus end year) must be distributed among the proper expense categories in the "Change in Inventory or Prepaid Expense" column in Screen 13, page 13.

⁵Nonfarm assets for partnerships and corporations should include nonfarm assets of all families in the business or none at all.

Name _____

[Proc. no. _____]

FINANCIAL LEASES

Fill in the following table if you are leasing cattle, equipment, or structures from outside your family or business. Include only formal financial lease agreements; i.e., where there is a scheduled payment commitment. Do not include rent paid here but record it under the appropriate expense category on Screen 13, page 13.

Leased item	Amount of each payment	No. of payments in 1993	Total 1993 expense	SCREEN 10.	
				No. of payments/full year	No. of payments remaining
Cattle:.....	\$ _____	_____	\$ _____	_____	_____
.....	_____	_____	_____	_____	_____
.....	_____	_____	_____	_____	_____
		Total	\$ _____ ¹		
Equipment:.....	\$ _____	_____	\$ _____	_____	_____
.....	_____	_____	_____	_____	_____
.....	_____	_____	_____	_____	_____
		Total	\$ _____ ²		
Structures:.....	\$ _____	_____	\$ _____	_____	_____
.....	_____	_____	_____	_____	_____
.....	_____	_____	_____	_____	_____
		Total	\$ _____ ³		

¹Enter under "Cattle leases" on Screen 13, page 13.

²Enter under "Machine hire, rent, & lease" on Screen 13, page 13.

³Enter under "Real Estate rent/lease" on Screen 13, page 13.

WORKSHEET 6. CHANGES IN OPERATING ACCOUNTS RECEIVABLE

Account Number or Description	Balance Dec. 31, 1993	Balance - Jan. 1, 1993	Change in Accounts Receivable	Allocation (Option: go directly to Scr. 12, p. 10)	
				Receipt Category	Change in Acct. Rec.
Milk Receipts:	\$ _____	- \$ _____	- \$ _____	Milk	\$ _____
_____:	\$ _____	- \$ _____	- \$ _____	Dairy cattle	_____
_____:	\$ _____	- \$ _____	- \$ _____	Dairy calves	_____
_____:	\$ _____	- \$ _____	- \$ _____	Other livestock	_____
				Crops	_____
				Government receipts	_____
				Custom machine work	_____
				Gas tax refunds	_____
				Other: _____	_____
TOTAL	\$ _____	- \$ _____	- \$ _____	_____ equals _____	\$ _____
Must agree with:	(Screen 9)	(Screen 9)	(Screen 12)		

Guidelines for Recording Accounts Receivable

1. Identify changes in operating accounts receivable by subtracting beginning from end of year balance (e.g. changes in milk receipts - January 1994 check minus Jan. 1993 check).
2. Assign and allocate changes in accounts receivable to appropriate farm receipts using worksheet or go directly to Screen 12, page 10.
3. The total of the two "Change in Accounts Receivable" columns must equal "Total Change in Accounts Receivable" in Screen 12, page 10.
4. All accounts receivable should appear as assets on the balance sheet, Screen 9, page 6.

Name _____

[Proc. no. _____]

FARM FAMILY FINANCIAL SITUATION

SCREEN 11.

LIABILITIES ¹			DEBT PAYMENTS						
Creditor (the first 12 characters will be used as input.)	Amount		Amount of New Bor- rowings	Amt. of Debt Refin- anced ²	Actual 1993 Pymts		Beg. 1994 Int. Rate	Planned 1994	
	Jan. 1, 1993	Dec. 31, 1993			Princi- pal	Interest		Amt. of Pymts.	Per Year
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(%)	(\$)	(no.)
Long Term Debt (≥10yrs.)									
			X	X					
			X	X					
			X	X					
			X	X					
			X	X					
Intermediate Term Debt (>1yr., <10yrs.)									
			X	X					
			X	X					
			X	X					
			X	X					
			X	X					
			X	X					
			X	X					
			X	X					
			X	X					

¹Farm Credit liabilities at beginning and end of year must be the proceeds amount; i.e., the liability excluding Farm Credit stock. Farm Credit stock displayed above Short Term Debt is entered in Screen 9, page 6.

²Enter amount of "old" loan refinanced as a negative number; "new" loan or refinanced amount as a positive number. Do not include these amounts in new borrowings or with principal payments.

Name _____

[Proc. no. _____]

FARM FAMILY FINANCIAL SITUATION (continued)

SCREEN 11. (continued)

LIABILITIES ¹			DEBT PAYMENTS						
Creditor (the first 12 characters will be used as input.)	Amount		Amount of New Bor- rowings	Amt. of Debt Refin- anced ²	Actual 1993 Pymts		Beg. 1994 Int. Rate	Planned 1994	
	Jan. 1, 1993	Dec. 31, 1993			Princi- pal	Interest		Amt. of Pymts.	Per Year
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(%)	(\$)	(no.)
Farm Credit Stock	-----	-----							
Short Term Debt (1 year or less) (borrowed to purchase capital items)									
_____	_____	_____	x _____	x	_____	_____			
_____	_____	_____	x _____	x	_____	_____			
_____	_____	_____	x _____	x	_____	_____			
Operating Debt (borrowed to buy items entered as expenses in Screen 13)								net reduction planned in: oper. debt	
_____	_____	_____						
_____	_____	_____						
Accounts Payable ³								accounts payable:	
Advanced Gov't Rec. ⁴									
Total Farm Liab/Pymts	\$.....	\$.....	\$.....	\$...0...	\$.....	\$.....		Total Nonfarm Payments	\$.....
Nonfarm Liab/Pymts ⁵	\$.....	\$.....	\$x.....	x	\$.....	\$.....			
TOTAL LIAB/PYMTS (not including leases)	\$.....	\$.....	\$.....		\$.....	\$.....			

³Accounts not paid (no money borrowed) for noncapital items/services. Accounts payable at beginning and end of year must agree with the totals in Worksheet 7, page 12.

⁴Include government payments received in 1993 that are for participation in the 1994 program, as the end year balance. Enter government payments received in 1992 for participation in the 1993 program as the beginning year balance.

⁵Include debt incurred for all nonfarm assets purchased.

Name _____

[Proc. no. _____]

SUMMARY OF 1993 RECEIPTS AND CHANGES IN INVENTORY AND ACCOUNTS RECEIVABLE

				SCREEN 12.
Farm Receipts	Cash + Receipts	Change in, Inventory ¹	Change in Accounts Receivable ²	= Accrual Receipts
Milk ----- lbs.	\$ _____	xxxxxxxxxx	\$ _____	\$-----
Dairy Cattle	_____	\$-----	_____	-----
Dairy Calves	_____	xxxxxxxxxx	_____	-----
Other Livestock	_____	-----	_____	-----
Crops	_____	-----	_____	-----
Government Receipts	_____	----- ³	_____	-----
Custom Machine Work	_____	xxxxxxxxxx	_____	-----
Gas Tax Refunds	_____	xxxxxxxxxx	_____	-----
Other:	\$.....			
.....	\$.....			
.....	\$.....			
Total Other	_____	xxxxxxxxxx	_____	-----
TOTAL	\$-----	\$-----	\$-----	\$-----
Sale of other stock & certificates (exclude Farm Credit stock)				\$ _____
Nonfarm Receipts:				
Cash income (describe & itemize largest amounts:				
.....: \$.....;: \$.....) total =\$ _____				
Cash used in the business from nonfarm capital \$ _____				
Noncash capital transferred to farm business for cattle, crops, etc. (e.g. gifts/inheritances) [excluding machinery (enter Screen 2) & real estate (enter Screen 5)] \$ _____				

¹End of year (at beginning prices for cattle) minus beginning of year. ²Use Worksheet 6 on page 7 to calculate. ³Change in advanced government receipts (beginning year minus end year) calculated from values entered in Screen 11, page 9.

Guidelines for Recording This Year's Receipts

1. Include gross value for pounds of milk sold.
2. Dairy cattle sales include receipts from cull cows and breeding stock. Include bob calf receipts under dairy calves sold.
3. Crop sales include sales of standing and harvested crops and any crop insurance proceeds.
4. Machinery and real estate sales are netted out in the inventory-depreciation calculations and must not be added in with other farm receipts.
5. Itemize and identify miscellaneous receipts of more than \$500. Include income from maple product sales and positions such as director of cooperative.
6. Nonfarm cash income from nonfarm work for self and spouse, tax refunds, principal and interest received from prior sale of farm assets, timber sales, gas and oil royalties, gravel sales, income from elected office, and other nonfarm income that is available for debt payments and family living. In some instances, receipts such as timber sales should be classified as farm income; i.e., if the farm operator has actively managed the enterprise and the corresponding expenses are included in Screen 13, page 13. All nonfarm income must be entered for the Annual Cash Flow Statement to balance.
7. Cash used in the business from nonfarm capital is all the rest of the cash flowing into the farm business from outside. Include cash from personal savings accounts, stocks or bonds converted to cash, cash gifts and inheritances.
8. Noncash capital transferred to farm business includes gifts and inheritances of farm assets (excluding mach. & real est.) and the conversion of nonfarm assets to farm assets.

Guidelines for Recording This Year's Expenses on Page 13

1. Enter hired labor expenses separately including wages, social security paid on labor, worker's compensation insurance (net of refunds), unemployment insurance, and privileges purchased for hired labor. Wages paid must be consistent with months of hired labor. Check to see that monthly wages range between \$750 and \$2,500 per employee. Make sure that wages do not include "draws" to partners or wages of corporate owner-operators for individuals entered as operators in Screen 7, page 5.
2. Dairy grain and concentrate bought should include the concentrate, minerals, protein, and grain purchased during the year for the dairy herd including heifers, calves, and bulls. Dairy roughage includes hay and silage for the dairy herd as well as anhydrous ammonia purchased for silage additive. All feed purchased for livestock such as horses, beef cattle, sheep, etc. should be included in non-dairy livestock feed.
3. Include all machinery rent paid and any lease payments on machinery. Include insurance and registration for trucks used solely for farm purposes under machinery repairs and parts. An "auto", whether a pick-up or car, is a vehicle with a farm share and a nonfarm share; therefore, the farm expenses associated with these are entered as auto expense.
4. Milk marketing expenses include government assessments, milk hauling, milk promotion, and coop dues. Do not include capital assessments. Cattle lease expense includes cattle lease payments and cattle rent. Other livestock expenses include DHIC dues, cattle registration, livestock board, milk house supplies, and bedding.
5. Enter all the town, county, and school taxes paid on farm real estate. Exclude income and self-employment taxes. (Itemize corporate taxes under miscellaneous.) Sales taxes should be capitalized along with cost of improvement.
6. Enter all the fire and farm liability insurance paid on farm property. Exclude life insurance and personal health insurance. Enter employee health insurance under hired labor expense, truck/auto insurance as machinery expense, and crop insurance as other crop expense.
7. Enter the farm share of electricity and telephone expenses.
8. Include all real estate rent paid and any lease payments on structures. Identify taxes and insurance paid by the rentee as rent. Enter machinery lease payments under machine hire, rent or lease, cattle lease payments under cattle lease expense.
9. Include all interest paid on farm liabilities including finance charges. Make sure interest paid equals total farm interest, column 7, Screen 11, page 8.
10. Miscellaneous expenses should not be large. Include only those items which cannot be identified within another category. Maple product expenses should be entered as miscellaneous.
11. Cattle and other livestock purchased must be divided into those purchased as replacements and those that increase the size of the herd (expansion). Start by assigning the increase in herd size corresponding to changes recorded on Screen 4, page 3.

Name _____

[Proc. no. _____]

WORKSHEET 7. CHANGES IN OPERATING ACCOUNTS PAYABLE

Complete only if you have operating accounts payable.

Account Number or Description	Balance 12/31/93	Balance 1/1/93	Change in Acct. Pay.	Allocation (enter totals on page 13)	
				Expense Category	Change in Acct. Pay.
_____	\$ _____	\$ _____	\$ _____	<u>Hired Labor</u>	\$ _____
_____	\$ _____	\$ _____	\$ _____	<u>Feed</u>	
_____	\$ _____	\$ _____	\$ _____	Dairy grain & conc.	\$ _____
_____	\$ _____	\$ _____	\$ _____	Dairy roughage	_____
_____	\$ _____	\$ _____	\$ _____	Nondairy feed	_____
_____	\$ _____	\$ _____	\$ _____	<u>Machinery</u>	
_____	\$ _____	\$ _____	\$ _____	Mach. hire & lease	_____
_____	\$ _____	\$ _____	\$ _____	Mach. repairs & parts	_____
_____	\$ _____	\$ _____	\$ _____	Auto expense(farm share)	_____
_____	\$ _____	\$ _____	\$ _____	Fuel, oil & grease	_____
_____	\$ _____	\$ _____	\$ _____	<u>Livestock</u>	
_____	\$ _____	\$ _____	\$ _____	Replacement livestock	_____
_____	\$ _____	\$ _____	\$ _____	Breeding	_____
_____	\$ _____	\$ _____	\$ _____	Veterinary & medicine	_____
_____	\$ _____	\$ _____	\$ _____	Milk marketing	_____
_____	\$ _____	\$ _____	\$ _____	Cattle lease	_____
_____	\$ _____	\$ _____	\$ _____	Other livestock expense	_____
_____	\$ _____	\$ _____	\$ _____	<u>Crops</u>	
_____	\$ _____	\$ _____	\$ _____	Fertilizer & lime	_____
_____	\$ _____	\$ _____	\$ _____	Seeds & plants	_____
_____	\$ _____	\$ _____	\$ _____	Spray, other crop exp.	_____
_____	\$ _____	\$ _____	\$ _____	<u>Real Estate</u>	
_____	\$ _____	\$ _____	\$ _____	Land, bldg., fence rep.	_____
_____	\$ _____	\$ _____	\$ _____	Taxes	_____
_____	\$ _____	\$ _____	\$ _____	Rent & lease	_____
_____	\$ _____	\$ _____	\$ _____	<u>Other</u>	
_____	\$ _____	\$ _____	\$ _____	Insurance	_____
_____	\$ _____	\$ _____	\$ _____	Telephone (farm share)	_____
_____	\$ _____	\$ _____	\$ _____	Electricity (farm share)	_____
_____	\$ _____	\$ _____	\$ _____	Interest	_____
_____	\$ _____	\$ _____	\$ _____	Miscellaneous	_____
_____	\$ _____	\$ _____	\$ _____	<u>Expansion Livestock</u>	_____
TOTAL:	\$ _____	\$ _____	\$ _____	_____ equals _____>	\$ _____

Must agree with: (Scr. 11) (Scr. 11) (Scr. 13)

Guidelines for Recording Accounts Payable

1. Identify changes in open operating accounts payable from beginning to end of year. These are accounts established when farm inputs, such as feed, fertilizer, farm supplies, machinery, repairs, and veterinarian services were bought on credit.
2. If there is more than one account per dealer or farm supplier (e.g., feed is purchased from the same supplier as fertilizer), list them separately on the left-hand portion of the worksheet to facilitate easier allocation to farm expense categories.
3. Assign and allocate changes in open operating accounts payable to appropriate farm expenses. Totals may be entered in Screen 13, page 13.
4. When more than one type of farm input is included in a particular open account, allocate to the expense categories using the estimated ratio of farm input actually purchased from the account during the year.
5. The total of the "Change in Accounts Payable" column must equal "Total Change in Accounts Payable" on Screen 13, page 13.
6. If scheduled debt payments were not made, there is likely an increase in accounts payable for "interest". However, if the loan was refinanced and the unpaid amount added to the principal, the interest is considered paid and is reported in Screen 11, pages 8 and 9.
7. All accounts payable should appear as liabilities on the balance sheet, Screen 11, page 9.

Name _____

[Proc. no. _____]

SUMMARY OF 1993 EXPENSES & CHANGES IN INVENTORY & ACCOUNTS PAYABLE

See page 11 for instructions.

	Cash	Change in	Change in	SCREEN 13.
Farm Expenses	Amount paid	+ or Prepaid	+ Change in	= Accrual
		Expenses ¹	Acct.Pay ²	Expenses
<u>Hired Labor</u>	\$ _____	\$x _____ x	\$ _____	\$ _____
<u>Feed (see Guideline 2 on page 11)</u>				
Dairy grain & concentrate	_____	_____	_____	_____
Dairy roughage	_____	_____	_____	_____
Nondairy feed	_____	_____	_____	_____
<u>Machinery</u>				
Machine hire, rent & lease	_____	x _____ x	_____	_____
Machinery repairs & parts	_____	_____	_____	_____
Auto expense (farm share)	_____	x _____ x	_____	_____
Fuel, oil & grease	_____	_____	_____	_____
<u>Livestock</u>				
Replacement livestock	_____	x _____ x	_____	_____
Breeding	_____	_____	_____	_____
Veterinary & medicine	_____	_____	_____	_____
Milk marketing	_____	x _____ x	_____	_____
Cattle lease/rent	_____	x _____ x	_____	_____
Other livestock expense	_____	_____	_____	_____
+++++				
<u>Crops</u>				
Fertilizer & lime	_____	_____ 3	_____	_____ 3
Seeds & plants	_____	_____ 3	_____	_____ 3
Spray, other crop expense	_____	_____ 3	_____	_____ 3
<u>Real Estate</u>				
Land, building, fence repair	_____	_____	_____	_____
Taxes	_____	x _____ x	_____	_____
Rent & lease	_____	x _____ x	_____	_____
<u>Other</u>				
Insurance	_____	x _____ x	_____	_____
Telephone (farm share)	_____	x _____ x	_____	_____
Electricity (farm share)	_____	x _____ x	_____	_____
Interest	_____	x _____ x	_____	_____
Miscellaneous	_____	_____	_____	_____
TOTAL OPERATING	\$ _____	\$ _____	\$ _____	\$ _____
Expansion livestock	\$ _____	x _____ x	_____	\$ _____
Purchase of other stock & certificates (exclude Farm Credit stock)				\$ _____
<u>Nonfarm Cash Expenses</u>				
Personal withdrawals & family expenditures ⁴				\$ _____

¹Changes in prepaid exp. can be entered in x _____ x spaces. Total change in prepaid exp. must = the difference between prepaid exp. totals in Screen 9, page 6 (beg. year minus end year).

²Use Worksheet 7 on page 12 to calculate.

³Must calculate for completion of Screen 14, page 14.

⁴Include all cash withdrawals plus all additional nonfarm expenses paid with farm cash or from farm accounts, e.g., income tax, self-employment tax, life insurance and wages of corporate owner-operators. Include withdrawals used for nonfarm loan payments, savings and investments as well as family living expenses. Include borrowed capital used for nonfarm purchases, providing it has been entered as a new nonfarm liability in Screen 11, page 9. If any or all "Nonfarm Cash Income" has been excluded from the value entered in Screen 12, page 10, you must also exclude any family expenses paid from that income.

Name _____

OPTIONAL INPUT

[Proc. no. _____]

BREAKDOWN OF 1993 ACCRUAL CROP EXPENSES BY CROP

SCREEN 14.

Crop	Accrual Ferti- lizer & Lime	Accrual Seeds & Plants	Accrual Spray, Other Crop Expenses
Hay crop (silage & dry)	\$ _____	\$ _____	\$ _____
Corn (silage & grain)	_____	_____	_____
Pasture	_____	_____	_____
All other crops	_____	_____	_____
Total	\$ _____	\$ _____	\$ _____

Totals above must equal accrual expenses in Screen 13, page 13.

OPTIONAL INPUT FOR DEFERRED TAX CALCULATIONS

It will be assumed that: (1) farm assets not listed below will not significantly influence deferred tax liability, and (2) all gain on machinery and purchased livestock is ordinary gain.

Tax Basis (undepreciated balance) of: (as of December 31, 1993)

Purchased livestock (included in livestock inventory, Screen 4)	\$ _____
Machinery & equipment (included in mach. inventory, Screen 2)	\$ _____
Buildings & improvements (included in R.E. inventory, Screen 5)	\$ _____
Part that is single purpose livestock structure, silos, & grain bins (\$ or %) _____	\$ _____ OR _____ %
Land (included in land and building inventory, Screen 5)	\$ _____
Operator residences ¹ (included in land & bldg. inventory, Screen 5)	\$ _____
Nonfarm assets (included in Screen 9)	\$ _____

Market Value of:

Operator residences (included in land & bldg. inventory, Screen 5)	\$ _____
Single purpose livestock structure, silos & grain bins (\$ or % of R.E. inventory) _____	\$ _____ OR _____ %
Purchased Livestock (\$ or % of livestock inventory) _____	\$ _____ OR _____ %

Proprietorship Information:

Tax filing status ² _____
Nonfarm income of operator on which self-employment tax was paid \$ _____

Partnership Information:

	Partner 1	Partner 2	Partner 3	Partner 4	Partner 5
Tax Filing Status ²	_____	_____	_____	_____	_____
Percent Share of Farm					
Adjusted Gross Income	_____ %	_____ %	_____ %	_____ %	_____ %
Percent Ownership of:					
Current Assets	_____ %	_____ %	_____ %	_____ %	_____ %
Livestock	_____ %	_____ %	_____ %	_____ %	_____ %
Machinery	_____ %	_____ %	_____ %	_____ %	_____ %
Real Estate	_____ %	_____ %	_____ %	_____ %	_____ %
Nonfarm Assets Listed	_____ %	_____ %	_____ %	_____ %	_____ %
Nonfarm Income of operator on which self-employment tax was paid	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

¹Residences included in farm real estate lived in by the operators of the business.

²1-single, 2-married filing jointly, 3-married filing separately, 4-head of household.

APPENDIX C

**PROCEDURES FOR CALCULATING
COST OF PRODUCING MILK**

2
4

2
3

PROCEDURES FOR CALCULATING COST OF PRODUCING MILK -
1993 DAIRY FARM BUSINESS SUMMARY
FOR DANIELLE DAIRYPERSON

		<u>Example¹</u>
Total Accrual Operating Expenses	\$310,380	
Plus: Expansion Livestock Expense	<u>+ 0</u>	
Accrual Operating Expenses Including		
Expansion Livestock		\$310,380
Total Accrual Receipts	\$376,880	
Less: Accrual Milk Sales	<u>-316,700</u>	
Accrual Receipts Less Milk Sales		<u>- 60,180</u>
Operating Cost of Producing Milk ²		\$250,200
Total Accrual Expenses		\$344,880
Accrual Receipts Less Milk Sales		<u>- 60,180</u>
Purchased Inputs Cost of Producing Milk ³		\$284,700
Total Accrual Expenses		\$344,880
Family Labor Unpaid		+ 16,800
Value of Operator's Labor & Management		+ 25,000
Real Interest on Equity Capital		+ 24,038
Accrual Receipts Less Milk Sales		<u>- 60,180</u>
Total Cost of Producing Milk ⁴		\$350,538

¹Same example as in Section VI of this publication.

² Considering only operating costs, this measure shows how you are doing on cost control in "operating" the business. If milk receipts are less than this measure, the farm has serious milk production profitability troubles which must be corrected immediately if the business is to survive.

³ Considering all costs except unpaid family labor and the opportunity cost of operator's labor, management, and equity capital, this measure after being subtracted from milk receipts will show the return from milk production to the above mentioned factors of production. If milk receipts are less than this measure of cost of producing milk, the business has milk production profitability difficulties. If the operating cost of producing milk is less than milk sales, but this measure is more than milk sales, the farm business is contributing to but not totally covering fixed costs. This situation must be corrected for long-run business survival.

⁴ Considering all costs of producing milk, including the opportunity cost of operator provided inputs, this measure is the best indicator of long-run business survival. On many farms, the total cost of producing milk will be less than milk sales. This does not imply the business is doomed. If milk sales are greater than the previously discussed two measures of cost of milk production, but less than the total cost of producing milk, the business is not returning the total opportunity cost of operator provided inputs. For long-run business survival, farms should strive for milk sales to meet or exceed this cost of producing milk.

APPENDIX D

CREATION OF A CONFIG.SYS FILE

CREATION OF A CONFIG.SYS FILE

In order for the program to work properly, a CONFIG.SYS file must exist in the root directory of a hard disk or on the MSDOS or PCDOS boot diskette of a floppy based system. To see if such a file exists, use the DIR command to get a directory of the existing files in the root directory.

For example, on a hard disk you would type:

```
DIR C:\CONFIG.SYS and press return.
```

If the file exists, it will be listed on the screen, if the file is not present a message "FILE NOT FOUND" will be displayed.

Existing files will need to be edited. This can be done by using the EDLIN command. To use this command, type:

```
EDLIN CONFIG.SYS and press return
```

and the following message will be displayed if the file is found:

```
End of input file
*
```

To get a listing of the file, type 1 and press return. The contents of the file will now be displayed:

```
*
1:*FILES = 10
2: BUFFERS = 10
*
```

What is displayed on your screen will be similar to the above example.

You will need to edit the line that contains the FILES statement. In the example above, line 1 contains the statement. To edit the line type:

```
1 and press return.
```

The following will then display:

```
*1
1:*FILES = 10
1:*
```

Enter new information on the blank line directly below the statement. You will now type:

```
FILES = 16 and press return.
```

The prompt will reappear. Type:

```
E and press return.
```

You will then return to the operating system prompt.

Once you have completed either of the steps outlined above, you will need to reboot the computer.

NOTES

OTHER AGRICULTURAL ECONOMICS EXTENSION PUBLICATIONS

No. 93-10	Dairy Farm Business Summary Southeastern New York Region 1992	Stuart F. Smith Linda D. Putnam Alan S. White Gerald J. Skoda Stephen E. Hadcock Larry R. Hulle
No. 93-11	Dairy Farm Business Summary Oneida- Mohawk Region 1992	Eddy L. LaDue Jacqueline M. Mierek Charles Z. Radick
No. 93-12	Dairy Farm Business Summary Western Plateau Region 1992	George L. Casler Andrew N. Dufresne Joan S. Petzen Michael L. Stratton Linda D. Putnam
No. 93-13	Winding Down Your Farm Operation	John R. Brake
No. 93-14	Dairy Farm Business Summary Eastern New York Renter Summary 1992	Stuart F. Smith Linda D. Putnam
No. 93-15	Supercenters: The Emerging Force in Food Retailing	Gene A. German Gerard Hawkes Debra Perosio
No. 93-16	Farm Income Tax Management and Reporting Reference Manual	George L. Casler Stuart F. Smith
No. 93-17	New York Economic Handbook 1994 Agricultural Situation and Outlook	Ag Ec Staff
No. 93-18	Time Value of Money	Eddy L. LaDue
No. 94-01	Fruit Farm Business Summary Lake Ontario Region New York 1992	Gerald B. White Alison DeMarree Linda D. Putnam