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**A Guide to Processing
Dairy Farm Business Summaries
in County and Regional Extension Offices
for
Micro DFBS V1.3**

IBM PC, XT and IBM-Compatible Microcomputers

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INTRODUCTION

This publication is a guide to using the Microcomputer Dairy Farm Business Summary (Micro DFBS) computer program for analyzing individual dairy farm businesses. County extension agents and regional specialists are the intended audience, however, college faculty in other states may also find this publication of value. Farm business records and 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 with appropriate microcomputers 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 is sent to the Department of Agricultural Economics at Cornell University for additional review prior to transfer to a mainframe computer program for calculation of regional and state summaries.

HARDWARE REQUIREMENTS

Version 1.2 of the Micro DFBS program will run on IBM PC and XT and IBM-compatible computers such as Compaq with a minimum of 192K of RAM memory. The DOS 1.1, 2.0 or 2.1 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 being made to make the program work with as many printers as possible. Most printers capable of printing in pica type (10 characters/inch, 66 lines/page) should work. Some headings use special printer control characters specific to certain dot-matrix printers. For these to appear as described in this manual, a printer setup function must be used. This includes settings for the following printers:

Epson FX 80	(dot matrix)
Okidata 92	(dot matrix)
IBM Graphics	(dot matrix)
TTX 1014	(daisy wheel)

plus a default setting which prints headings in normal type. The default setting should work with any printer capable of printing in pica type.

Each farm summary printout is seven 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, and is highly desirable.

WHAT'S IN THE REST OF THIS MANUAL

The next section, GETTING STARTED, is a tutorial for the first time user. It is intended to be read and followed from start to finish at the computer while running the program. This is followed by the READY REFERENCE section, which provides a short explanation of each DFBS option. The last section is a list of the DAIRY FARM BUSINESS SUMMARY DIAGNOSTICS that may be printed out with the summary printout to call attention to unusual data items.

GETTING STARTED

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) starting the program .
- b) typing information from a sample input form
- c) calculating and printing a summary
- d) 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 in a previous section. If you are not familiar with the operation of your microcomputer and operating system, refer to its DOS manual.

1. Start the program.

Important - 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 9-5-84, the printout will show

1983 Dairy Farm Business Summary

If you don't enter the date and instead leave it as the default of 1-01-1980, 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.

A. Two floppy disk drives (IBM PC, Compaq):

Insert your DOS diskette in drive A (the left-hand drive) 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. Take out the DOS diskette. Insert the Micro DFBS program diskette in drive A and the sample data diskette provided in drive B (right hand drive).

Skip to C on page 4.

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

If 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.

If you have previously loaded DOS onto the hard disk, 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.

The Micro DFBS program is set up to store data on drive B, with the program diskette in drive A. This works fine on a two-floppy system, but not on a one floppy-one hard disk system because the floppy drive is referred to as both A and B while the hard disk is drive C. The solution is to use the DOS ASSIGN command to tell the computer 'whenever the program asks for drive B, use drive C instead.' To use this command, type

```
ASSIGN B=C<↵
```

each time the Micro DFBS program is run.

You will be storing data on the hard disk, so it is advisable to set up a separate directory on the hard disk for this purpose. We'll call the directory DFBS. First, let's check if 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 re-run on a one floppy-one hard disk system, the Micro DFBS directory must be accessed using the command

```
CD \DFBS <↵
```

The sample data diskette contains a file which must be transferred to your new Micro DFBS directory. Insert the sample data disk into drive A and transfer the file by typing

```
COPY A:12001.82 <↵
```

The C> prompt should reappear.

Note: The MD DFBS and COPY commands need to be used only once--the directory and file will remain after the session is ended and can be used in future sessions. The CD \DFBS command must be used in each session, however.

Finally, type

```
A: <↵
```

to make A the default drive.

C. Final startup instructions for both two-floppy and one floppy-one hard disk systems:

Remove the write-protection strip from the diskette labelled "DFBS version 1.2 program diskette" and insert the diskette in drive A, if you haven't already done so. Save the write-protection strip. If you have a two-floppy system, you should still have the sample data diskette in drive B. Before getting into the main Micro DFBS program, you need to run a short program to set up the program for the printer you are using. To run the printer setup program, type

PRCHNGE <—

You should see the screen shown below.

A>prchng

Disk write-protection should be removed. If not, remove it now and type any key to continue. Type "O" for Okidata, "E" for Epson, "I" for IBM Graphics, "T" for TTX, "return" for anything else.

Type the letter for your printer, followed by <— . For example, Okidata would be

O <—

You should see

Okidata format recorded.

Restore write-protection now, and type any key to continue.
A>

When you see the A>, remove the program diskette, replace the write-protection strip and insert the program diskette back into the computer. You are now ready to run Micro DFBS. Type

DFBS <—

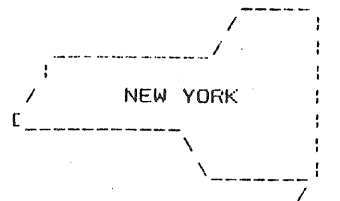
You should see the main menu.

MAIN MENU

COOPERATIVE EXTENSION

Prepared by
DEPARTMENT OF
AGRICULTURAL ECONOMICS
CORNELL UNIVERSITY

Dairy Farm Business Summary System



```

=====
[ ] Create record           [ ] Print farm summary
[ ] Verify record          [ ] Post progress data
[ ] Display record          [ ] Update system constants
[ ] Update record           [ ] Help
[ ] Calculate farm summary   [ ] Quit
=====

```


2. Enter the input data

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 one of the options selected, 'create record', the top left option. This option is used to enter input data for a new farm. Type

<]

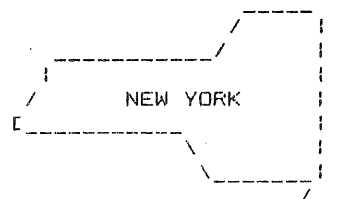
to select the 'create record' option. Later, you will use the cursor keys ↑ and ↓ to move the cursor to the other options.

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.

Main Menu with Farm Number Prompt

COOPERATIVE EXTENSION

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Dairy Farm Business Summary System

```
=====
[ ] Create record           [ ] Print farm summary
[ ] Verify record          [ ] Post progress data
[ ] Display record          [ ] Update system constants
[ ] Update record           [ ] Help
[ ] Calculate farm summary  [ ] Quit
=====
```

Enter farm no. >

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 last page of the summary, "Progress of the Farm Business," to work properly.

Important - Do not type the Esc key while entering data. Doing so will erase the entire farm record.

If you make an error entering data and you notice it before typing the <] key, you can correct the error by using the backspace key to erase the error, and type the correct entry. If you type <] before noticing the error, there are three ways to correct it. You can reenter the entire screen, by typing <] until you get the prompt "Advance to screen number?>" and then typing the screen number you wish to reenter. You can't backup to a previous entry

when using "Create record". You must finish the screen. Or you can wait until you are done entering the rest of the data on all 12 screens. Then use the "Verify record" option explained below in step 3 or "Update record" in step 5.

The top of the first page of our sample farm checkin form is shown below. We will call our sample farm number 12001, and we have written the number in the block labelled "For Cornell Use Only".

**NEW YORK STATE COOPERATIVE EXTENSION DAIRY FARM BUSINESS
SUMMARY AND DATA CHECK-IN FORM**

Name Clover Estates, D. Warren

County Delaware

Address 407 Warren Hall
Ithaca, NY 14850

Phone no. 256-4592

For Cornell Use Only	Screen 1.
Proc. number <u>12001</u>	Year <u>1983</u>
(X)complete, ()entered, ()ready	

Type the farm number

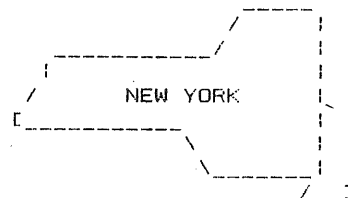
12001<|

You should see a new prompt, asking for a screen number.

Main Menu with Screen Number Prompt

COOPERATIVE EXTENSION

Prepared by
DEPARTMENT OF
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CORNELL UNIVERSITY



Dairy Farm Business Summary System

```

=====
[ ] Create record
[ ] Verify record
[ ] Display record
[ ] Update record
[ ] Calculate farm summary

[ ] Print farm summary
[ ] Post progress data
[ ] Update system constants
[ ] Help
[ ] Quit
=====

```

Advance to screen number? >

If that farm record was entered previously this year, you will be prompted with

Farm already exists. Continue? (Y/N)

Typing "Y" will prompt you to re-enter the farm number. In this way you can stop in the middle of creating a farm record, then return to it later. However, the best practice is to enter the data completely at one sitting.

Screen 1 contains the farm name, address, and number from the top section of page 1 of the checkin form. Screen numbers 2 through 12 correspond to the 11 boxed-in areas of the checkin form. The main menu is also given a number 0, but the number doesn't appear on the screen. At this point, you can advance to the next screen by typing or skip to any screen you want by typing a number from 0 to 12 and . At this point, you want Screen 1. Go to screen 1 by typing

Screen 1 should look like Screen 1(a) below. The farm number will already be inserted for you, and the cursor will be at the farm name.

Enter the farm name and the rest of the farm information, (Use the sample farm information from the previous page.) Type "Clover Estates" as the farm name and "D. Warren" as the operator's name. Type to move down to the next line. The county name will be filled in by DFBS based on the first two digits of the farm number.

(Screen no. 1(a))

Screen no. 1(a)

Farm Information

```
=====
Farm no..... 12001
Farm Name .....
Operator's Name ...
Address .....
City .....
Zip .....
County .....
Phone .....

Regular [ ]                Irregular [ ]
=====
```

At the bottom of the screen, find the classifications "Regular" and "Irregular". These 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. Farm data is automatically coded "Regular" when entered. To code a farm as "Irregular", you must finish entering the data and then use the "Update record" to make the change to "Irregular". So for now, the cursor will skip over this line and you will see Screen 1(b) when you finish.

Screen no. 1(b)

Farm Information

```
=====
Farm no. .... 12001
Farm Name ..... Clover Estates
Operator's Name ... D. Warren
Address ..... 407 Warren Hall
City ..... Ithaca, N.Y.
Zip ..... 14850
County ..... Delaware
Phone ..... 256-4592
```

Regular []

Irregular []

Advance to screen number? >

Move to screen 2 by typing



You should see screen 2(a).

FARM NO. b:12001.B3

Screen 2. (a)

Machinery and Equipment Inventory

```
=====
Machinery & Equipment Inventory  Beginning $ _____ End $
-----
Machinery & Equipment Purchased      +
Machinery & Equipment Sold            -

Depreciation:
-----
Previous year's Reg. Tax              -
This year's Mac. Purch. x 10%        -

Total beginning Inventory After Changes - $
Machinery Appreciation (end less beginning after changes) $
```

Part of page 1 of Clover Estates' check-in sheet, the inventory and depreciation information is shown below. The arrows show where each item is typed into screen 2 of Micro DFBS. The computer doesn't know what to do with commas (or spaces within or to the left of numbers), so don't type the commas. Enter the data called for. Use <| to move from one item to the next one below. The bottom three items, marked with *, are calculated by Micro DFBS. When you get Screen 2 completed, advance to Screen 3 by typing

<|

MACHINERY AND EQUIPMENT INVENTORY AND DEPRECIATION (Do not include leased items)			
Beginning of Year Inventory	\$ 51,885	End of Year Inventory	\$ 63,820
Machinery & Equipment Purchased	+ 17,450		
Machinery & Equipment Sold	- 2,000		
Last Year's Reg. Tax Depreciation*-	8,427		
This Year's Machinery Purchased			
\$ 17,450 x .10	- 1,745		
Total Beginning Inventory After Changes			\$ 57,163
Machinery Appreciation (end less beginning after changes)			\$ 6,657

*Exclude buildings from ACRS depreciation.

FARM NO. 12001

Screen 2.

Machinery and Equipment Inventory			
=====			
Machinery & Equipment Inventory	Beginning \$ 51885	End \$ 63820	

Machinery & Equipment Purchased	+ 17450		
Machinery & Equipment Sold	- 2000		
Depreciation:			

Previous year's Reg. Tax	- 8427		
This year's Mac. Purch. x 10%	- 1745*		
Total beginning Inventory After Changes		- \$ 57163*	
Machinery Appreciation (end less beginning after changes)		\$ 6657*	
=====			

Advance to screen number? >

Screens 3 through 12 are handled in a similar way and, as with Screen 2, are designed to resemble the checkin form as closely as possible.

Now finish typing the farm information for Clover Estates into Screens 3 through 12. After Screen 12, you should be back to the main menu.

Cow No. Check: = + + -
cows at yr. end cows beg. yr. heif's fresh cows purch. sold, died, etc.

Explain large change in feed & supply inventory:

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

Screen 3.

五、本行在报告期内未发生任何重大关联交易。

The data for Screen 4 is entered in the following order: beginning year market value, end year market value, new land, new buildings, lost capital, previous year's depreciation, and real estate sold.

REAL ESTATE INVENTORY BALANCE	
Land & Building Market Value:	Beginning \$ <u>325,500</u> End \$ <u>340,500</u>
New Real Estate:	
Land \$ <u>2,000</u> + bldg. \$ <u>4,030</u> = \$ <u>6,030</u>	
Less lost capital - <u>4,000</u>	
= Value added	+ <u>5,030</u>
Depreciation: from last year's income tax	- <u>2,999</u>
*New bldg. \$ <u>4,030</u> x .05	- <u>202</u>
Beginning of year value of real estate sold	- <u>1,000</u>
Total Beginning Value after Changes	\$ <u>326,329</u>
Real Estate Appreciation (end less beginning after changes)	\$ <u>14,171</u>

*Include depreciation on buildings in ACRS 5 year class from 1981.

FARM NO. 12001

Screen 4.

Real Estate Inventory			
=====			
Land and building market value	Beginning \$ 325500	End \$ 340500	
New real estate:			

Land 2000 + Bld. 4030	= 6030*		
	VALUE		
Less lost capital	- 1000	= ADDED + 5030*	
Depreciation: Previous yr's annual tax	- 2999		

5% of new buildings	- 202*		
Beginning of year value of real est. sold	- 1000		
Total beginning value after changes		- \$ 326329*	
End less beginning (after changes) = APPRECIATION		\$ 14171*	
=====			

Business description items are entered by typing the number that appears in parentheses on the data check-in form and pressing <return>. The appropriate business description item will be displayed on the screen.

The order of data entry is as follows: numbers of livestock, testing, milking system, business type, milk sold, butterfat test, type of barn, and record 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.

Name Clover Estates Proc. No. 12001

LIVESTOCK & BUSINESS DESCRIPTION				
Livestock	Ave. No. For Year	Testing	Milking System	Business Type
Dairy cows (owned & leased)	<u>60</u>	<input checked="" type="checkbox"/> (1) D.H.I.	<input type="checkbox"/> (1) Bucket & carry	<input type="checkbox"/> (1) Single prop.
Heifers (dairy)	<u>40</u>	<input type="checkbox"/> (2) O.S.	<input checked="" type="checkbox"/> (2) Dumping station	<input checked="" type="checkbox"/> (2) Partnership
Bulls	<u>1</u>	<input type="checkbox"/> (3) Other	<input type="checkbox"/> (3) Pipeline	<input type="checkbox"/> (3) Corporation
<u>horses - 2</u>	<u>4 w.u.</u>	<input type="checkbox"/> (4) None	<input type="checkbox"/> (4) Herringbone par.	<input type="checkbox"/> (4) Other
			<input type="checkbox"/> (5) Other parlor	
Pounds of milk sold	<u>838800</u>	<input checked="" type="checkbox"/> (1) Stanchion	<input type="checkbox"/> (1) CAMIS	<input type="checkbox"/> (5) Agway
Average milk plant test	<u>3.5</u> B.F.	<input type="checkbox"/> (2) Freestall	<input checked="" type="checkbox"/> (2) Acct. Book	<input type="checkbox"/> (6) On-Farm Computer
		<input type="checkbox"/> (3) Other	<input type="checkbox"/> (3) Agrifax	<input type="checkbox"/> (7) Other
			<input type="checkbox"/> (4) Fm. Bureau	

FARM NO. 12001

Screen 5.

```

Livestock and Business Description
=====
Livestock      Average No.   Testing   Milking System   Business Type
-----
dairy cows      60           D.H.I     Dumping station  Partnership
heifers (dairy) 40
bulls           1
other livestock 4

Milk production                                Type of Barn   Record System
-----
milk sold (Lb.) 838800                          Stanchion      Account book

Average milk plant test 3.5  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 ^a -----	
<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 harv.	0.6
Corn for grain	0.6
Oats	0.6
Wheat	0.6
Tillable pasture	0

^aWork 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 6, if a zero is entered for full-time months for Operator number 2 or 3, the cursor will skip the remaining entries in that row and move to the "Family Paid" entry.

The order of data entry for the land inventory is across the rows.

LABOR INVENTORY	Full Time Months	Age	Yrs. of Educ.	Value of Management & Labor
Operator - 1	<u>12</u>	<u>23</u>	<u>14</u>	\$ <u>13000</u>
- 2	<u>12</u>	<u>25</u>	<u>14</u>	\$ <u>13000</u>
- 3	<u>12</u>	<u>27</u>	<u>16</u>	\$ <u>13000</u>
Family (paid employees)	<u>1</u>			
Family (unpaid)	<u>1</u>			
Hired	<u>4</u>			
Total	<u>42</u>	+ 12 = <u>3.5</u> Worker Equivalent		
LAND INVENTORY	Acres Owned	Acres Rented	All Acres	
Tillable land	<u>153</u>	<u>11</u>	<u>164</u>	
Pasture (nontillable)	<u>300</u>	<u>3</u>	<u>303</u>	
Woods & other nontillable	<u>240</u>	<u>6</u>	<u>246</u>	
Total	<u>693</u>	<u>20</u>	<u>713</u>	

FARM NO. 12001

Screen 6.

L a b o r a n d L a n d I n v e n t o r y				
=====				
Labor	Full time months	age	Years of educ.	Value of mgmt. & labor

Operator no. 1	12	23	14	\$ 13000
no. 2	12	25	14	\$ 13000
no. 3	12	27	16	\$ 13000
Family (Paid)	1			
Family (Unpaid)	1			
Hired	4			
Total	42*	/ 12	= 3.5*	Worker equivalent
Land	Acres owned		Acres rented	All acres

Tillable land	153		11	164*
Pasture (non-tillable)	300		3	303*
Woods & other non-tillable	240		6	246*
Total	693*		20*	713*
=====				

When entering the data in the dry matter coefficient column of screen 7, the leading zero, decimal and two digits to the right of the decimal must be typed. If zero tons is entered for hay crop silage, the cursor skips to corn silage acres. If zero acres are entered for a crop, the cursor will skip the production and dry matter entries and move to the next crop. The entry for total production of "Other Crops" is in number of work units. The order of data entry is across the rows.

TILLABLE LAND USE	Acres (1st cut only)	Total Production (all cuttings)	Percent Dry Matter	Total Tons Dry Matter
Hay Crop (1st cut acres only)	100	XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX XXXXXXXXXXXX	XXXXXXXXXXXX XXXXXXXXXXXX
Hay	XXXXXXXXXXXX	190 tons	0.90	171
Hay crop silage	XXXXXXXXXXXX	220 tons	0.40	88
Corn silage	57	650 tons	0.46	299
Other forage harv.		tons		
Corn for grain*	4	280 dry sh. bu	Tot. tn. DM	558
Oats		dry sh. bu		
Wheat		dry sh. bu		
Potatoes	1	6 w.u.		
Tillable pasture	1			
Idle tillable acres	1			
Total tillable acres	164			

*Convert to dry shelled equivalent (see tables opposite page).

FARM NO. b:12001.84

Screen 7.

Tillable Land Use

	Acres (1st cut)	Total production (all cuttings)	Dry matter coefficient	Total tons dry matter
Hay crop	100			
Hay		190 tons	0.90	171
Hay silage		220 tons	0.40	88
Corn silage	57	650 tons	0.46	299
Other forage	0	0 tons	0.00	0
Corn for grain	4	280 bu.	Total tons D.M.	558
Oats	0	0 bu.		
Wheat	0	0 bu.		
Other	1	6 w.u.		
Tillable pasture	1			
Idle tillable Acr.	1			
Total tillable Acr.	164			

Advance to screen number? >

The first item on screen 8, "total farm inventory", is calculated from data entered in earlier screens and is displayed here. The order of data entry is down the left column, then down the right column.

Farm Business Summary & Analysis

Name Clover Estates[Proc. no. 12001]

END OF YEAR FARM FAMILY FINANCIAL SITUATION, DECEMBER 31, 1982

ASSETS			
Total Farm Inventory*	\$ <u>525,525</u>	Cash in savings accounts	\$ <u>50</u>
Other Farm Assets:		Cash value life insurance	<u>500</u>
Accounts receivable	<u>8,350</u>	Nonfarm real estate	<u>600</u>
Cash on hand & checking	<u>50</u>	Personal share auto	<u>1000</u>
Co-op stocks & certificates	<u>2,000</u>	Stocks & bonds	<u>700</u>
Total Farm Assets	\$ <u>535,925</u>	Household furn. & equip.	<u>800</u>
Nonfarm assets (from right column)	<u>4,550</u>	Other	<u>900</u>
		Total nonfarm assets	\$ <u>4,550</u>
TOTAL ASSETS	\$ <u>540,475</u>		

FARM NO. 12001

Screen 8.

End of Year Family Financial Situation Assets

Total farm inventory	\$ 525525*	Cash in savings account	\$ 50
Other farm assets:		Cash value life insurance	500
Accounts receivable	\$ 8350	Nonfarm real estate	600
Cash on hand & checking	50	Personal share auto	1000
Co-op stock & cert.	2000	Stocks & bonds	700
Total Farm Assets (excluding leases)	\$ 535925*	Household furn. & equip.	800
Nonfarm assets (from right col.)	4550*	Other	900
		Total nonfarm assets	\$ 4550*
TOTAL ASSETS	\$ 540475*		

Only the "liability amount" and total annual payments" columns on the data check-in form are entered on Screen 9. The other columns are for clarification and calculation purposes.

Entering a zero after the last entry in the first three liability sections (long term, intermediate, and short-term) will skip the cursor to the first space of the next section. When entering "debt payments", the cursor will move only to those spaces where a liability has been entered in the left column. The order of data entry is down the left column, then down the right column.

LIABILITIES		PLANNED DEBT PAYMENT SCHEDULE, 1983**			
	Amount	Int. Rate	Amount of Payments***	Payments Per Year	Total Annual Payments
Long term debt (10 yrs. & over)					
	\$ <u>16,264</u>	X	\$ _____	x _____	= \$ <u>2,083</u>
	<u>45,000</u>	X	\$ _____	x _____	= \$ <u>3,600</u>
	<u>8,000</u>	X	\$ _____	x _____	= \$ <u>2,720</u>
	<u>19,000</u>	X	\$ _____	x _____	= \$ <u>4,000</u>
Intermediate term debt (over 1 yr., under 10 yrs.)					
	\$ <u>17,000</u>	X	\$ _____	x _____	= \$ <u>3,500</u>
	<u>13,000</u>	X	\$ _____	x _____	= \$ <u>3,000</u>
	<u>11,000</u>	X	\$ _____	x _____	= \$ <u>2,500</u>
	<u>8,000</u>	X	\$ _____	x _____	= \$ <u>2,000</u>
	<u>7,000</u>	X	\$ _____	x _____	= \$ <u>1,500</u>
Short term debt (1 yr. or less)					
	\$ <u>4,000</u>	X	\$ _____	x _____	= \$ <u>4,000</u>
	<u>2,200</u>	X	\$ _____	x _____	= \$ <u>2,200</u>
Open accounts:					
Beg. of Year \$ _____					
End of Year \$ <u>817</u>					
(net reduction planned) = \$ <u>100</u>					
Total Farm Liabilities		\$ <u>151,281</u>		Total Annual Farm Loan Payments \$ <u>31,203</u>	
Nonfarm Liabilities		<u>2,000</u>		Total Annual Nonfarm Payments \$ <u>500</u>	
TOTAL LIABILITIES		\$ <u>153,281</u>			
Total Assets \$ <u>540,475</u> less Total Liabilities \$ <u>153,281</u> = Family Net Worth \$ <u>387,194</u>					

*Total end of year farm inventory is the total of end-of-year values for livestock, feed and supplies, machinery and equipment, and land and buildings.

**Include planned payments on all liabilities listed to the left.

***Include interest and principal paid.

FARM NO. 12001

Screen 9.

Liabilities and Planned Debt Payment Schedule

Liabilities:	Amount	Debt Payment
long term	\$ 16264	\$ 2083
	45000	3600
	8000	2720
	19000	4000
Intermediate	\$ 17000	\$ 3500
	13000	3000
	11000	2500
	8000	2000
	7000	1500
Short term	\$ 4000	4000
	2200	2200
Open accounts	\$ 817	(net reduction) \$ 100
Total Farm(ex less.)	\$ 151281*	Total Farm \$ 31203*
Total Nonfarm	\$ 2000	Total Nonfarm \$ 500
Total Liabilities	\$ 153281*	
Total assets \$ 540475* less Total Liab. \$ 153281* = Family Net Worth \$ 387194*		

Only the columns titled "amount of each payment", "no. of payments/full year", and "no. of payments remaining" from the data check-in form are entered on Screen 10. The other columns are for clarification and calculation purposes.

In the first column, "amount of each payment", entering a zero after the last entry in each lease section (cattle, equipment, and structures), will skip the cursor to the first entry of the next lease section. In the second and third columns the cursor will move only to those spaces where a lease payment has been entered in the first column. The order of data entry is down the columns.

FINANCIAL LEASES

Fill in the following table if you are leasing cattle, equipment, or structures from outside your family or business. Do not include rent paid for farms and cropland here but record it as real estate rent under expenses on next page.

Leased item	Amount of each payment	No. of payments in 1982	Total 1982 expense	No. of payments/ full year	No. of payments remaining
Cattle: _____	\$ <u>30</u>	<u>3</u>	\$ <u>90</u>	<u>6</u>	<u>15</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Total \$ <u>90</u>					
Equipment: _____	<u>35</u>	<u>3</u>	<u>105</u>	<u>6</u>	<u>15</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Total \$ <u>105</u>					
Structures: _____	<u>32</u>	<u>3</u>	<u>96</u>	<u>6</u>	<u>15</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Total \$ <u>96</u>					

FARM NO. 12001

Screen 10

Financial Leases

Leased item	Amount of each payment	No. of payments/ full year	No. of payments remaining
Cattle:	\$ 30	6	15
	0	0	0
	0	0	0
Equipment:	35	6	15
	0	0	0
	0	0	0
Structures:	32	6	15
	0	0	0
	0	0	0

The format of Screen 11 differs from the data check-in form in that expenses are split into two columns on the screen. The order of data entry is down the left column starting with "hired labor", then down the right column starting with "spray and other crop expense".

Farm Business Summary & Analysis

Name Clover Estates(Proc. no. 12001 1)

SUMMARY OF THE YEAR'S FARM EXPENSES AND RECEIPTS, 1982

Expenses	
Hired Labor	\$ 4500
Wages	
Social Security	
Worker's Comp.	
Privileges Pur.	
Dairy concentrate	27145
Hay & other feed	100
Machine hire, rent & lease	830
Truck, trac., other mach. exp.	8685
Auto expense (farm share)	1500
Gasoline & oil	4725
Breeding fees	1750
Veterinary & medicine	3000
Milk mktg. (hauling, ADA, dues)	2860
Cattle lease	90
Other livestock expense	7360
Lime & fertilizer	6150
Seeds & plants	1750
Spray & other crop expense	1100
Land, building, fence repair	4450
Taxes	6080
Insurance (fire & farm busi.)	2450
Electricity (farm share)	1611
Telephone (farm share)	515
R.E. rent/lease (bldg. & land)	704
Interest paid	17145
Miscellaneous	560
Replacement livestock pur. ¹	4975
TOTAL CASH OPERATING EXPENSES	\$ 110035
Expansion livestock purchased ²	\$ 2000

(Receipts are listed on the next page)

FARM NO. 12001

Screen 11.

Summary of the Year's Farm Expenses

=====			
Hired labor	\$ 4500		
Dairy concentrate	27145	Spray & other crop expenses	1100
Hay and other feed	100	Land, building, fence repair	4450
Machine hire, rent & lease	830	Taxes	6080
Truck, trac., other mach. exp.	8685	Insurance (fire & farm busi.)	2450
Auto expense (farm share)	1500	Electricity (farm share)	1611
Gasoline & oil	4725	Telephone (farm share)	515
Breeding fees	1750	R.E. rent/lease bldg. or land	704
Veterinary & medicine	3000	Interest paid	17145
Milk marketing	2860	Miscellaneous	560
Cattle lease	90	Replacement livstck. pur.	4975
Other livestock expense	7360		
Lime & fertilizer	6150	TOTAL CASH OPERATING EXPENSES	110035*
Seeds & plants	1750	Expansion livestock purchased	2000
=====			

The format of Screen 12 differs from the data check-in form in that there are no blank spaces for other entries. All data must be categorized into one of the existing receipt descriptions.

Receipts	
Milk Sales (gross) <u>938,800</u> lbs.	<u>116890</u>
Dairy cattle sales	<u>3500</u>
Calf & other livestock sales	<u>1350</u>
Crop sales	<u>600</u>
Income from machine work	<u>150</u>
Gas tax refunds	<u>100</u>
Government payments	<u>300</u>
Machinery sold \$-----	XXXXXXXXXX
Real estate sold \$-----	XXXXXXXXXX
Other large receipt items	<u>30</u>
Other miscellaneous receipts	<u>20</u>
TOTAL CASH RECEIPTS	<u>\$122940</u>
Off Farm Income \$ <u>10000</u>	

FARM NO. 12001

Screen 12.

Summary of the Year's Farm Receipts

Milk sales (gross)	\$ 116890
Dairy cattle sales	3500
Calf & other livestock sales	1350
Crop sales	600
Income from machinery work	150
Gas tax refunds	100
Government payments	300
Other large receipt items	30
Other miscellaneous receipts	20
TOTAL CASH RECEIPTS	\$ 122940*
Off Farm Income	\$ 10000

Type

<|

to get back to the main menu.

3. 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. If you type <↵> at this point, DFBS will assume that you want to use the same farm that you used previously, 12001. But, if you want to verify some other record, you can make that switch by typing the new number. We will stay with the same farm, so type

<↵>

You will see the same Screen 1 as before when we used "Create record" (Screen 1(c)). Type the farm name

Alfalfa Estates

Now you should see

Screen no. 1(c)

Farm Information

```
=====
Farm no. .... 12001
Farm Name .....
Operator's Name ...
Address .....
City .....
Zip .....
County .....
Phone .....
```

Regular []

Irregular []

Input did not match -- please check and reenter

I pulled a fast one on you. The name should have been "Clover Estates". DFBS compares the two entries and lets you know if you didn't enter the same information in "Verify record" as you entered in "Create record". Now enter the farm name a third time, and make it

Clover Estates<↵>

The program compares this new entry to the previous two entries. If any two of the three match, DFBS assumes that these two are correct and saves them, erasing the odd entry.

Verify the rest of Screen 1 and 2 through 12. All data entries work the same way as the farm name, checking against the matching entry from "Create record".

Important - when verifying Screen 7, dry matter coefficients, type the leading and both digits to the right of the decimal (for 90 percent dry matter, type "0.90", not just ".9", regardless of how you entered it originally).

4. Display the data

Suppose you forget the name of the farm you called 12001. You can refresh your memory by using the third option, "Display record". Move the cursor down to this option using the ↓ key. (If you went too far, back up using the ↑ key. Type

<|

to select this option, and <| two more times to get to farm 12001, Screen 1. You can select any farm, and look at any screen. You can not make any changes with the "Display record" option. Type <| until you get the prompt

Advance to Screen Number ?>

and type <| to get back to the main menu.

5. Update the data

We have now decided we really want to change the farm name to "Alfalfa Estates". Make changes in a record using the "Update record" option. Select this option, and advance to screen 1.

The cursor behaves differently in "Update record" from the way we were used to in the other options. Move the cursor to the data item you want to change using the ↓ and ↑ keys. Once you get to the item you

want, type <| to erase the old entry. Move the cursor to the farm name, and type

<|

You will see an underlined blank ready for the new entry. Type

Alfalfa Estates <|

to complete the change.

This is the option where you would change the farm from "Regular" to "Irregular" if so desired.

To advance to another screen, type the [Home] key and then <|.

6. Post progress data from previous years

Your sample data diskette contains a file with last year's data (1982) for the "Progress of the farm business" section on page 6 of the summary for farm 12001. This is a DOS file with the name 12001.82. The "Post progress data" option is used to transfer this information to this year's summary.

Select "Post progress data". You will be prompted for the farm number. Type

<|

When the main menu returns, select "Calculate farm summary" and then "Print farm summary" again. The new printout should contain the 1982 information. 1981 will still have zeros. We don't have information for 1981 in the file. Farm 12001 was not in the summary program in 1981.

7. Calculate the farm summary

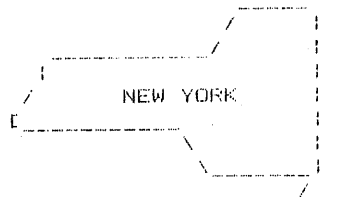
Select the "Calculate farm summary" option. Type

<—|

to keep the same farm number.

COOPERATIVE EXTENSION

Prepared by
DEPARTMENT OF
AGRICULTURAL ECONOMICS
CORNELL UNIVERSITY



Dairy Farm Business Summary System

```
=====
[ ] Create record
[ ] Verify record
[ ] Display record
[ ] Update record
[ ] Calculate farm summary

[ ] Print farm summary
[ ] Post progress data
[ ] Update system constants
[ ] Help
[ ] Quit
=====
```

Type page number, D for diagnostics, '.' for just pages or <return> for all. >

When you see the prompt type

<—|

to calculate both the summary and diagnostics.^a The calculations will take up to several minutes. A prompt will appear showing the name of the DOS file containing the completed summary information. When the main menu returns, the calculations are done. The summary printout is ready to be printed.

8. Print the farm summary

Select the "Print farm summary" option. You will be prompted for the farm number, and then you will see a prompt to check that the printer is ready. Turn the printer off, position the paper at the top of a page, and turn the printer back on. Then type

<—|

The summary should now print. If you wish to cancel the printing of a summary, turn off the printer and turn it back on. If that does not work, reboot the computer. You won't lose any data. The summary printout for our sample farm is included on the following pages.

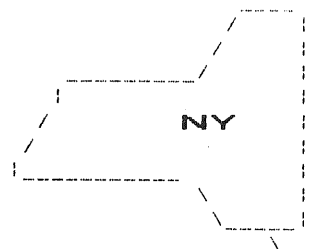
^aAn intermittent "bug" has turned up at this step when the user types <—| without a farm number. You can terminate the program if the bug occurs. Hold down the [ctrl] key and press the [break] key on the upper right corner of the keyboard. You will be asked if you want to terminate the batch job. Type Y to terminate, and when you get the A> prompt, type

DFBS <—|

to get back to the main menu.

COOPERATIVE EXTENSION

Prepared by
**DEPARTMENT OF
 AGRICULTURAL ECONOMICS
 CORNELL UNIVERSITY**

**1983 DAIRY FARM BUSINESS SUMMARY**

FARM NO. 12001 October 18, 1984

BUSINESS CHARACTERISTICS		<<< OWNER >>>		
60 cow dairy farm				Partnership
Stanchion				Account Book
Dumping station				D.H.I.
LABOR FORCE	MONTHS	AGE	YEARS ED	\$ MGT & LAB
operator no. 1.	12	23	14	13000
operator no. 2.	12	25	14	13000
operator no. 3.	12	27	16	13000
family paid	1			
family unpaid	1			
hired	4			
totals...>	42			39000
worker eqv.- years >>>	3.50		operator years >>>	3.00
LAND (ACRES)	OWNED		RENTED	TOTAL
tillable land	153		11	164
nontillable pasture	300		3	303
other nontillable	240		6	246
Total...>	693		20	713
CAPITAL INVESTMENT			\$ BEG YEAR	\$ END YEAR
livestock			90475	108925
feed & supplies			17720	12280
machinery & equipment			51885	63820
land & buildings			325500	340500
Totals...>			\$ 485580	\$ 525525
INVENTORY ACCOUNTING			\$ AMOUNT	\$ AMOUNT
Livestock				
end of year market value			108925	108925
less beginning of year market value				90475
Total change in value...>				\$ 18450
less end of year at beg. price			101625	
Change due to price (appreciation)...>				7300
less beginning of year market value			90475	
Change in inventory...>				\$ 11150

FARM NO. 12001	October 18, 1984		page 2.
INVENTORY ACCOUNTING (CONT.)	\$ AMOUNT	\$ AMOUNT	\$ AMOUNT
<hr/>			
Machinery & Equipment			
end of year market value			63820
beg. of year market value		51885	
plus machinery purchased		17450	
less machinery sold		2000	
less depreciation		10172	
		<hr/>	
net end investment			57163
			<hr/>
Appreciation...>			\$ 6657
Real Estate			
end of year market value			340500
beg. of year market value		325500	
plus cost of new real estate	6030		
less lost capital	1000		
	<hr/>		
value added		5030	
less depreciation	3201		
less real estate sold	1000		
	<hr/>		
value deducted		4201	
		<hr/>	
net end investment			326329
			<hr/>
Appreciation...>			\$ 14171
RECEIPTS	\$ PER COW	\$ PER FARM	
	<hr/>	<hr/>	
milk sales	1948.17	116890	
crop sales	10.00	600	
dairy cattle sales	58.33	3500	
calves & other livestock sales	22.50	1350	
gas tax refund	1.67	100	
government payments	5.00	300	
machine work	2.50	150	
miscellaneous	0.83	50	
	<hr/>	<hr/>	
Total cash receipts...>	\$ 2049.00	\$ 122940	
increase in livestock inventory	185.83	11150	
	<hr/>	<hr/>	
Total excluding appreciation...>	\$ 2234.83	\$ 134090	
livestock appreciation	121.67	7300	
machinery appreciation	110.95	6657	
real estate appreciation	236.18	14171	
	<hr/>	<hr/>	
Total farm receipts...>	\$ 2703.63	\$ 162218	

FARM NO. 12001		October 18, 1984	page 3.
EXPENSES		\$ PER COW	\$ PER FARM
Hired labor		75.00	4500
Feed			
dairy grain & concentrate		452.42	27145
hay and other		1.67	100
Machinery			
machine hire, rent & lease		13.83	830
machine repair		144.75	8685
auto expense (farm share)		25.00	1500
gas and oil		78.75	4725
Livestock			
replacement livestock		82.92	4975
breeding fees		29.17	1750
veterinary and medicine		50.00	3000
milk marketing		47.67	2860
cattle leased		1.50	90
other livestock expense		122.67	7360
Crops			
fertilizer and lime		102.50	6150
seeds and plants		29.17	1750
spray and other		18.33	1100
Real estate			
land, building & fence repair		74.17	4450
taxes		101.33	6080
insurance		40.83	2450
rent/lease		11.73	704
Other cash expense			
telephone (farm share)		8.58	515
electricity (farm share)		26.85	1611
interest paid		285.75	17145
miscellaneous		9.33	560
total cash expense...>		\$ 1833.92	\$ 110035
decrease in feed and supplies		90.67	5440
expansion livestock		33.33	2000
machinery depreciation		169.53	10172
building depreciation		53.34	3201
unpaid labor @ \$500/mo.		8.33	500
Total excluding interest on equity...>		\$ 2189.13	\$ 131348
interest of equity capital @ 5%		320.54	19232
Total farm expense...>		\$ 2509.66	\$ 150580
FARM INCOME SUMMARY		\$ AMOUNT	\$ AMOUNT
cash farm receipts		122940	
less cash farm expenses		110035	
Net cash farm income			12905
Total farm receipts excluding appreciation		134090	
less total farm expenses		150580	
Labor & management income per farm			-16490
Labor & management income per operator			-5497
full time operator/manager equivalents >>>			3.00

FARM NO. 12001 October 18, 1984		page 4.
FARM INCOME SUMMARY (CONT.)	\$ AMOUNT	\$ AMOUNT
total farm receipts	162218	
less total expenses excluding int. on equity	131348	
labor, mgt. & ownership income per farm	30870	
labor, mgt. & ownership income per operator		10290
less value of operator (s) mgt. & labor	39000	
return on equity capital...>	\$ -8130	
rate of return on \$ 384644 equity...>		\$ -2.1%
rate of return on equity excluding appreciation...>		-9.4%
FARM FAMILY FINANCIAL STATEMENT	\$ ANNUAL PAYMENTS PLANNED	\$ END OF YEAR
Assets		
livestock, including \$ 354 disc. lease pymt.		109279
feed and supplies		12280
machinery and equipment, including \$ 413 disc. lease pymt.		64233
land and buildings, including \$ 377 disc. lease pymt.		340877
co-op investment		2000
accounts receivable		8350
cash and checking accounts		50
Total farm assets...>		\$ 537069
savings accounts		50
cash value of life insurance		500
stocks and bonds		700
nonfarm real estate		600
auto (personal share)		1000
all other		1700
Total farm and non-farm assets...>		\$ 541619
Liabilities		
long term	2083	16264
long term	3600	45000
long term	2720	8000
long term	4000	19000
intermediate	3500	17000
intermediate	3000	13000
intermediate	2500	11000
intermediate	2000	8000
intermediate	1500	7000
financial lease	--	1144
short term	4000	4000
short term	2200	2200
open accounts	100	817
Total farm payments & liabilities	31203	152425
Total non-farm payments & liabilities	500	2000
Total payments planned & liabilities	31703	154425
farm net worth (equity capital)...>		\$ 384644
family net worth...>		\$ 387194

FARM NO. 12001
SELECTED BUSINESS FACTORS

October 18, 1984

page 5.

Size of Business Factors

number of cows:	beg. owned >	58	end owned >	54	
	end leased >	10	total end >	64	average > 60
number of heifers					40
milk sold (pounds)					838800
worker equivalent					3.50
total work units					650
total tillable acres					164
Rates of Production					
pounds of milk sold per cow					13980

Crops	acres	total production	production per acre
dry hay		171 Tons DM	
hay crop silage		88 Tons DM	
Total hay crop production	100	259 Tons DM	2.6 Tons DM
corn silage	57	650 Tons	11.4 Tons
		299 Tons DM	5.2 Tons DM
other forage	0	0 Tons DM	0.0 Tons DM
Total forage production	157	558 Tons DM	3.6 Tons DM
corn grain production	4	280 Bushels	70.0 Bushels
oat production	0	0 Bushels	0.0 Bushels
wheat production	0	0 Bushels	0.0 Bushels
other crops	1		
tillable pasture	1		
idle tillable land	1		

Labor Efficiency

cows per worker		17
milk sold per worker		239657
work units per worker		186

Capital Efficiency (based on year-end capital & cow no.)

farm capital per worker	\$ 150150	per cow	\$ 8211
machinery investment per cow	\$ 997	per tillable acre	\$ 389
land & building per cow	\$ 5320	per till. acre owned	\$ 2225
capital turnover (years)			3.2

Financial Management

amount available for debt service & living		\$ 40050	
total debt payments planned		\$ 31703	
debt pymts. planned per cow	\$ 488	as % of milk sales	27%
debt/asset ratio - long term	0.26	- inter./short term	0.32
debt per cow		\$2382	
percent equity (total)		71%	

Feed Costs & Related Factors

dairy grain & conc. - per cow	\$ 452	- per cwt. milk	\$3.24
- as % of milk receipts	23%		
crop expenses - per cow	\$ 150	- per cwt. milk	\$1.07
feed & crop expense - per cow	\$ 604	- per cwt. milk	\$4.32
forage dry matter harvested per cow (tons)			9.3
tillable forage acres per cow			2.6
total tillable acres per cow			2.7
fertilizer & lime expense per tillable acre			\$ 38
heifers as % of cow number			67%

FARM NO. 12001
BUSINESS FACTORS (CONT.)

October 18, 1984
\$ AMOUNT

page 6.
\$ AMOUNT

Machinery & Labor Costs

machinery: deprec.	10172	labor: value op(s)	27000
interest	2893	unpaid family	500
op. exp.	15740	hired	4500
Total machinery	28805	Total labor	32000
per cow	480	per cow	533
per cwt. milk	3.43	per cwt. milk	3.81
Total machinery & labor	60805		
per cow	1013		
per cwt. milk	\$7.25		

Other Costs & Receipts

\$ AMOUNT

total lvs& exp (excluding replacements & overhead) per cow	251
total real estate expenses per cow	228
milk & cattle sales per cow	2029
average price per cwt. milk sold	13.94
total cash receipts per worker	35126

PROGRESS OF THE FARM BUSINESS

SELECTED FACTORS	1981	1982	1983
Size of Business			
number of cows	0	55	60
number of heifers	0	40	40
milk sold (in pounds)	0	800000	838800
worker equivalent	0.00	3.50	3.50
total tillable acres	0	164	164
Rates of Production			
pounds milk sold per cow	0	14545	13980
tons hay DM per acre	0.0	2.7	2.6
tons corn silage per acre	0.0	11.1	11.4
Labor Efficiency			
cows per worker	0	16	17
pounds of milk sold per worker	0	228571	239657
Cost Control			
purchases of feed as % of milk sold	0%	23%	23%
feed & crop expense per cwt. milk \$	0.00	\$ 4.25	\$ 4.32
labor & machinery costs per cow \$	0	\$ 1102	\$ 1013
Capital Efficiency			
farm capital per cow	\$ 0	\$ 9255	\$ 8211
capital turnover	0.0	3.2	3.2
Price			
price per cwt. of milk	\$ 0.00	\$ 13.75	\$ 13.94
Financial Summary			
net cash farm income	\$ 0	\$ 7760	\$ 12905
labor & mgt. income per operator	\$ 0	\$ -8184	\$ -5497
net worth (equity capital)	\$ 0	\$ 351728	\$ 384644
rate of return on equity	0.0%	-2.2%	-2.1%
percent equity	0%	69%	71%
farm debt per cow	\$ 0	\$ 2908	\$ 2382

FARM NO. 12001
DAIRY SUMMARY DIAGNOSTICS

October 18, 1984

page 7.

Livestock Inventory

2. End of year inventory at beginning prices > beginning of year inventory but no increase in livestock numbers.
2. Expansion livestock expense > \$0 but no increase in dairy cow numbers.
2. Dairy cow end year inventory at beginning prices > beginning year inventory but no increase in dairy cow numbers.

Feed & Supplies

2. Feed and supply inventory decreased > 25%.

Management performance measures

8. Labor and management income per operator ≤ 0 or $> 30,000 = \$ -5497$.

9. Ignore the "Update system constants" option

There are several "system constants" in the program, such as the discount rate used to calculate the net present value of lease payments. In version 1.3 of Micro DFBS, these constants are changed by revising the program source code, not through the main menu.

10. Get "Help"

If you select this option, you will see a short description of each option on the main menu.

11. Quit

This takes you back to DOS. You can restart Micro DFBS by typing DFBS (not now).

12. Preview the output on the screen

You must select "Quit" and get an A> prompt before doing this step. It is a DOS procedure, not a part of the Micro DFBS program.

You may have noticed that printing is a time-consuming part of doing a summary. If you have to make changes and print revised copies, it's even more time-consuming. The TYPE command in DOS allows you to preview the summary and diagnostics before printing. This works only after the summary has been calculated (step 6). You must have the DOS prompt A> or C> to use this feature. Type the command

TYPE B:12001.83P

You should see the output scroll across the screen. There will be a few strange marks in the headings. Ignore them; they will not appear on the printout if the program is set up correctly for your printer.

Did it scroll by too fast to read? There is a way to stop and restart it. When it has scrolled to the place you want to read, hold down the [ctrl] key and press the [num-lock] key. To continue scrolling, press any key. As an alternative, you can stop the scrolling without restarting by holding down [ctrl] and pressing [scroll-lock].

13. Check the Diagnostics page

The last page of the summaries is a diagnostic page, 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. Initial each item and write an explanation as necessary on one copy. Send this copy to Cornell along with the diskette and checkin sheet to indicate that the record is correct. This will save everyone time and telephone calls spent verifying and correcting farm records.

14. Make two backup copies of the data diskette

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

```
DIR B:<|
```

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

```
dir b:
```

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

```
COMMAND  COM      17664    3-08-83   12:00p
12001     83       1778    10-22-84   12:03a
12001     82       1778     9-18-84    1:07a
()        BAT         2    10-22-84   12:04a
FARMNO           2    10-22-84   12:04a
12001     83P     22843    10-22-84   12:03a
6 File(s)      240640 bytes free
```

The 1983 farm record files entered in 1984 will have file extensions of .83. The sample farm is file 12001.83. Its output file has a file extension .83P. It is less important to backup output files than record files because the output file can be easily recreated from the record file using "calculate farm summary".

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

```
COPY B:*.83 A:<|
```

Do this twice.

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

It's an excellent idea to make a backup copy of the program diskette as well. With the program diskette in drive A, insert a blank, formatted diskette in drive B. From the A> prompt, type

```
COPY A:*. * B:<|
```

WHAT TO DO WHEN THE DISKETTE GETS FULL

A diskette formatted in DOS 2.0 holds about 320K of data. The "Create record" option creates a data file for each farm which is about 2K in size. "Calculate summary" creates a second file (the one with the .83P extension) which is 23K, so it takes a total of 25K for each farm if you enter the data and calculate each summary in turn. The data diskette should then hold 320/25 or about 12 farm records if you have no records for previous years for those farms, or less if you do.

When you fill up the diskette, you will get a message telling you to change diskettes. This may happen when you use "Create record", but more likely at "Calculate summary".

When this happens, you will need to use the DOS command COPY to copy the current and previous years' farm record files for the remaining farms to another diskette. For example, to copy the record files for farm 12001 to a new diskette, remove the DFBS program diskette from drive A and insert a blank, formatted diskette. Then type

```
COPY B:12001.83 A:<—|
```

```
COPY B:12001.82 A:<—|
```

Then remove the original data diskette from drive B and move the new one from A to B.

READY REFERENCE

Programs available on Micro DFBS Version 1.3 program diskette:

PRCHNGE... Printer setup program that saves specifications on the diskette for any of the following printers:

Epson FX 80	(dot matrix)
Okidata 92	(dot matrix)
IBM Graphics	(dot matrix)
TTX 1014	(daisywheel)

plus a default setting. The printer specifications will take effect only when you select the DFBS option "Calculate summary".

Run PRCHNGE from A> by inserting the DFBS program diskette in drive A and typing PRCHNGE<—

DFBS... Main program for creating, verifying, updating, calculating and printing summaries.

Run DFBS from A> by inserting the DFBS program diskette in drive A and a formatted diskette in drive B, and typing DFBS<—

DFBS menu options:

CREATE RECORD... Creates a new farm file. Data should be entered in one sitting. This option prompts you for a farm number. If there is no farm record by that farm number on your data disk (or hard disk directory), it will create it, then ask you for the "NEXT SCREEN". If that farm record was entered previously this year, you will be prompted with

Farm already exists. Continue? (Y/N)

Typing "Y" will prompt you to re-enter the farm number. In this way, you can stop in the middle of creating a farm record, then return to it later. However, the best practice is to enter the data completely at one sitting.

CREATE RECORD will overwrite any data entered previously for that farm number.

Use the "Update record" instead of "Create record" to make changes in a farm record. Farm data is considered "regular" when first entered meaning that it will be included in the regional and state summaries. To code a farm "irregular", use the "Update record" option.

CREATE RECORD compares the first two digits of the farm number against other farm records on the diskette (or directory). It will not allow you to put records from two or more counties on one diskette.

DISPLAY RECORD... Displays information from an existing farm file at the terminal. Upon selection of DISPLAY RECORD, the program prompts you with "FARM NUMBER", then "NEXT SCREEN". Choosing the screen number will display its contents.

- POST PROGRESS DATA... Posts the "progress of the farm business" information from the previous year to the current year. Upon selection of POST PROGRESS DATA, the program will prompt you for "FARM NUMBER". If farm record files with the same farm number and file extensions of the past two years (.83 or .82, if you are entering a 1984 summary), progress data will be posted to the current year record.
- PRINT FARM SUMMARY... Prints the summary previously calculated by the CALCULATE FARM SUMMARY option and stored on the data disk under the farm number, with a file extension of the last two digits of the year plus a "P", as in 12001.83P.
- QUIT... Ends the DFBS program and returns to DOS, giving a prompt such as A> or C>.
- UPDATE RECORD... Updates information in an existing farm record file. Upon selection of UPDATE RECORD, the program prompts you with "FARM NUMBER". If the record exists, you are prompted with "NEXT SCREEN". When the screen appears, the cursor will be pointing at the farm number. To update a data item in that screen, move the cursor to that field using the ↓ and ↑ cursor keys. Then type <↓ to erase the old data. Type the new data and <↓. Move the cursor back to the farm number using ↑ or the [Home] key. You will be prompted with "NEXT SCREEN".
- UPDATE SYSTEM CONSTANTS... Not functioning in Version 1.3 of Micro DFBS.
- VERIFY RECORD... Verifies information currently in an existing farm file. Upon selection of VERIFY, the program prompts you for "FARM NUMBER". If the farm exists, it prompts you with "NEXT SCREEN". Once you are in the screen, the program guides you field-by-field through the screen prompting you for input. If the input matches the data in the file, the program goes to the next field. However, if it does not match, it prompts you again. This activity continues until your entry matches the data on the file or the data just entered.

Common problems:

Program won't recognize a farm record file	File extension (year, example .83) 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
PANIC!! CAN'T OPEN FILE!! or other cycling - keyboard won't respond	Bug in software. We're working on it.	Hold down [ctrl] key and press [break] key, or turn off computer
Program unexpectedly aborts and gives an A> or C> prompt, when advancing from main menu to screen 10, 11, or 12	Bug in software.	Type DFBS to restart, and go consecutively through all screens 1 to 12.

Other hints:

Hard disk users: In addition to the procedure described on pages 2 and 3 for setting up DFBS, you can run DFBS from the hard disk by copying the program diskette to the hard disk and making the hard disk the default drive. You still need to use "ASSIGN B=C" to tell the program that the data files are on drive C instead of drive B, which it expects.

As an alternative, don't use "ASSIGN B=C" but copy the program diskette to the hard disk. Then insert a diskette in the floppy drive (this drive is called both drive A and drive B by the computer). Your data files will then be stored on the floppy diskette.

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 is missing, inconsistent or outside a "normal" expected range. Each diagnostic statement should be carefully scrutinized to help insure that the data is 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 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 low or modest levels of new machinery purchases occur.
1. "Machinery appreciation exceeds depreciation."

Check to see if depreciation is within the expected range, but is not correct (Screen 2). Low depreciation results in appreciation that is too high. In "normal" years of low to moderate inflation, machinery appreciation is expected to be less than machinery depreciation.
1. "Machinery appreciation = $-\$n$." (When $n < 0$.)

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, check to see if all values, especially depreciation are correct.

LIVESTOCK INVENTORY

2. "End of year inventory at beginning prices $>$ beginning of year inventory but no increase in livestock numbers."

Two possible explanations exist:

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

Check to be certain one or both of the above actually occurred (Screen 3).

2. "End of year inventory at beginning prices < beginning of year inventory but no decrease in livestock numbers."

Again, two possible explanations exist:

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

Check to be certain one or both of the above actually occurred (Screen 3).

2. "Number of leased dairy cows > 0 but cattle lease expense = \$0.

An inconsistency may exist. Check to see if cattle were leased (Screen 3) and if lease payments were entered correctly (Screens 10 and 11). Cows may in fact be leased from others or boarded for others with no cash exchanged.

2. "Livestock appreciation is < \$0, = \$_____."

Livestock value fell from beginning to end of year (Screen 3). Check to make certain this occurred.

2. "Livestock appreciation > change in inventory, = \$_____."

The majority of the increase in total livestock inventory resulted from price increases and not growth of the herd (Screen 3). Check to see if this is accurate.

2. "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 11.

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.

2. "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 3) 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 11)? Check the accuracy of input data.

2. "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.

2. "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.

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.

REAL ESTATE INVENTORY

2. "Real Estate appreciation > .15 of beginning + value added or < 0."

Real estate appreciation is greater than expected in "normal" circumstances or is negative (Screen 4). 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.

2. "Lost capital > .50 of real estate purchased = _____."

Lost capital is greater than "normally" expected (Screen 4). Small capital improvements may not add to the market value of the property and, therefore, lost capital could be equal to the total cost.

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

Implies ownership of buildings, but no land (Screens 4 and 6). 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.

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

If land is owned, a market value was not entered (Screen 4). Land owned may have incorrectly been entered. The above stated possibilities should also be explored.

2. "Building depreciation \geq 4% of beginning real estate."

Building depreciation is greater than "normally" expected (Screen 4). 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.

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

Lost capital exceeds the value added from new real estate purchases (Screen 4). At worst, this should be \$0. Check to be certain data entry is correct.

LIVESTOCK

4. "Number of other livestock inconsistent with other livestock inventory." (When number = 0 and inventory $>$ 0, or number $>$ 0 and inventory = 0.)

Data entered on Screens 3 and 5 are inconsistent with respect to other livestock. Check data collected and entered for accuracy.

4. "Milk per cow = n pounds." (When $n < 8,000$ or $n > 18,000$.)

Pounds milk sold per cow is outside the normal range. Check to see if average cow numbers and pounds of milk sold (Screen 5) are entered correctly. Check butterfat content to see if a non-Holstein herd is being analyzed.

4. "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 6) and milk sold (Screen 5) are entered correctly.

4. "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 3 and 5). Check to see if this is correct.

4. "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 3 and 5). Check to see if this is correct.

4. "Average number of heifers out of range of beginning and end inventory."

The average number of heifers (Screen 11) is not within the range of number of youngstock and bulls, beginning and end of years (Screen 3). It is possible if a large number of heifers were purchased and entered the herd after only a few months. Check to be sure data entries are correct.

LABOR

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

Single proprietorship category was checked on Screen 5, but more than one operator was recorded on Screen 6. A single proprietor can have only one operator, the other should be reported as family unpaid.

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

Hired labor expense was recorded on Screen 11 but no months of hired labor were recorded on Screen 6. 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.

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

Hired labor months were recorded on Screen 6, but no expense on Screen 11. These two entries should be consistent. Check to be certain they are. 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 11). If the farm is a partnership or corporation, check the labor inventory against business organization for consistency.

4. "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 6) is correct.

LAND AND CROPS

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

Land is rented (Screen 6) but real estate rent/lease is \$0 (Screen 11). Check to see if this is correct. Example: If land rent is paid with a portion of the crop, report the value as a crop sale and as a rent payment.

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

Land is very limited. Check to see if feed purchases (Screen 11) reflect low levels of farm grown feeds. Check to see if all tillable land is reported (Screen 6) or if rented land has been omitted.

4. "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 7).

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

Corn silage yield is outside the "normal" range. Check to see if the dry matter coefficient and conversion are correct (Screen 7). Check acres of corn silage (Screen 7) and determine if some acres were not harvested. Check calculation of quantity harvested.

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

Corn grain yield is outside the "normal" range. Check to see if moisture conversion and/or bushel conversions were done correctly (Screen 7). Check acres in corn grain and repeat calculations of quantity harvested.

4. "Oat yield is < 20 or > 80 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.

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

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

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

Calculations on Screen 6 and Screen 7 are not correct/consistent. Review the data entries for accuracy and recheck your math.

ASSETS AND LIABILITIES

6. "Scheduled debt payments > .35 of milk sales = ____%." Scheduled debt payments are 10 percentage points above the average (Screens 9 and 12). Check milk sales and debt payment schedule for accuracy.

6. "Long term debt > .80 of land and building inventory."

Long term debt is higher than "normally" expected. Check to see if data is entered correctly (Screen 9). Falling asset values may have contributed to creation of this situation as well as increased borrowing.

6. "Farm net worth < .30 of farm capital. NW = _____."

Farm net worth is lower than normal (Screen 9). Check all calculations for accuracy. Falling asset values and increased borrowing may have contributed.

6. "Debt per cow > \$3,500 = \$_____."

Debt per cow is above average. Check for accuracy of data (Screens 3 and 9).

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

The December milk check may not have been included as an account receivable (Screen 8). Check to see if all accounts have been included.

6. "Intermediate term debt > total farm inventory less real estate."

Intermediate term debt is high and, in fact, greater than intermediate term assets (Screens 8 and 9). Check to see if this is correct.

6. "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 9).

6. "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 9).

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

Short term planned payments are higher than expected. Check for accuracy of entries (Screen 9).

6. "Planned reduction of open account > open account debt."

This is a definite inconsistency. The reduction in open accounts cannot be greater than the open account balance (Screen 9).

6. "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 9). Check to make certain the data is accurate.

FINANCIAL LEASES

7. "Leases cattle but no lease expense."

Cattle are leased (Screen 3) but lease expense is \$0 (Screen 11). Check to be certain cattle lease is not included with machinery or real estate lease and the cattle are in fact leased.

7. "Leases equipment but no lease expense."

Equipment is leased (Screen 10), but lease expense is \$0 (Screen 11). Check to see if cattle or real estate lease includes equipment (Screen 11) and if equipment is in fact leased.

7. "Leases structures but no lease expense."

Structures are leased (Screen 10) but no lease expense was entered (Screen 11). Check to see if lease expense was included with cattle or equipment and if in fact structures are leased.

EXPENSES

8. "Wages < \$400 or > \$1,200. Wages = \$_____ per month."

Wages per month for family paid and hired labor are outside the normal range. Determine if months of labor recorded (Screen 6) and labor expense (Screen 11) are accurate.

8. "Owns farm real estate but pays not taxes."

Farm real state is owned (Screen 4) but taxes are not reported (Screen 11). Check to see if taxes were paid but not reported, paid by a third party or not paid during the year.

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

Farm liabilities exist (Screen 9), but no interest expense reported (Screen 11). Check to see if special circumstances exist or if interest was in fact not paid during the year.

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

Cattle lease expense is reported (Screen 11), but lease information is missing (Screen 10). Record the information on Screen 10 once the existence of an actual lease has been verified.

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

Farm real estate is owned (Screen 6) but no insurance expense is

reported (Screen 11). Check to see if insurance expense was omitted or is included in other categories. Make certain real estate is owned.

RECEIPTS

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

Government payments, 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.

8. "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 5).

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

Tillable crop acres per cow are high (Screen 6) but no crop sales are reported (Screen 12). Check to see if crop yields are low (Screen 7) or inventories of feed and supplies increased (Screen 3).

MANAGEMENT PERFORMANCE MEASURES

8. "Net cash income = \$n." (When n < 10,000 or > 80,000.)

Net cash income is outside the "normally" expected range. Review the total record of cash receipts and cash expenses (Screens 11 and 12) to be certain the net cash income is correct.

8. "Labor and management income per operator < \$0 or > \$30,000 = \$_____."

Labor and management income is outside the "normally" expected range. Review the cash receipts and cash expenses (Screens 11 and 12) and especially inventory adjustments and/or depreciation for real state, machinery and equipment, livestock, and feed and supplies (Screens 2, 3, and 4).

8. "Labor, management and ownership income < labor and management income."

If labor, management, and ownership income is less than labor and management income, total appreciation is negative and a greater absolute value than interest on equity capital. Review the record to verify the data is correct.

8. "Feed % milk unusually low or high. Value is n%." (When n < 10% or n > 40%.)

Feed purchases as a percent of milk sales is outside the normally expected range. Check feed purchases (Screen 11) for accuracy, check to see if crop yields are high and/or a large number of crop acres per cow exists.

OTHER

Farm coded renter.

A farm is classified renter when no acres of tillable land are owned.

Farm coded irregular.

Farms are coded irregular when the data is incomplete or missing or not judged to be accurate.