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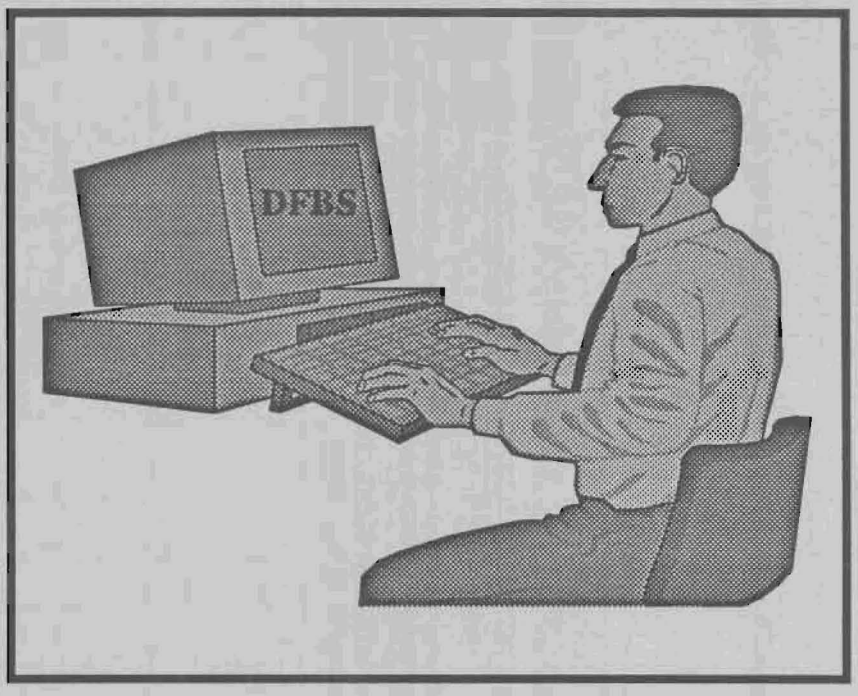
January 1996 E.B. 96-02

MICRO DFBS



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

Micro DFBS Version 3.2

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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 3.2 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 10 characters per inch and 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 3.2 REVISIONS

Revisions made for Micro DFBS Version 3.2 include the following:

1) The discount rates used in calculation of lease assets and liabilities are 8.25 percent at the beginning of year, and 9.25 percent at the end of the year. These are the typical interest rates paid by farm borrowers during the year.

2) It is possible to enter more than 12 months of labor per operator. See the instructions on page 70. Labor and management income per operator will not be affected by this change.

3) "Bedding" and "Milking supplies" are added under Livestock Supplies in Screen 3. The calculation of inventory change is now end year - beginning year for all feed and supplies.

4) In Screen 13 "Auto expense" is combined with "machinery repairs and parts" to make "machinery repairs and farm vehicle expense". "Bedding", "Milking supplies", and "Custom boarding" are new expense categories. "Telephone" and "Electricity" are combined under "Utilities". The "Change in inventory or prepaid expense" column is now subtracted from the "Cash Amount Paid" column.

5) The profitability measure "Return to Operator Labor, Management and Equity Capital" has been eliminated from page 3 of the output.

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:

46007.95 is the current year's data file,
46007.94O is the 1994 output file, and
46007.93O is the 1993 output file.

The 1994 and 1993 output data files are required for use by the current year data file (<farm no.>.95) in order to print a "Progress of the Farm Business" table on page 1 of the output. The 1995 data file contains data from the 1994 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 1-1-96, Micro DFBS will use the <farm no.>.95 data file and the printout will show:

1995 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 1-1-96↵

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

---

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

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

copy a:46007.* b:↵

Skip to C on page 4.

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

If you have previously loaded DOS onto the hard disk[2], 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 and the computer does not have an internal calendar, at the C> prompt type:

date 1-1-96↵

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:46007.* ↵

The C> prompt should reappear.

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

---

[2]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.

[3]If you are unfamiliar with the concept of a directory, refer to your DOS manual. Typing the command "prompt pg" 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>.

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.

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.

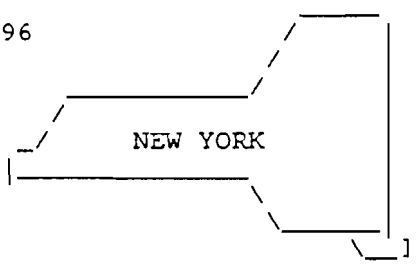
C. You are now ready to run Micro DFBS. Type:

   DFBS ↵

   You should see the main menu.

MAIN MENU

```
                                        DATE: 1/4/1996
CORNELL COOPERATIVE EXTENSION

Prepared by
DEPARTMENT OF AGRICULTURAL, RESOURCE,
AND MANAGERIAL ECONOMICS
CORNELL UNIVERSITY

Dairy Farm Business Summary   Version 3.2 (C) 1995
```




```
[ ] Create/Update/Display Record    [ ] Calculate and Print Farm Summary
[ ] Verify Record                   [ ] Run Install Program
[ ] Delete Record                   [ ] Help

                          [ ] 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 ↵. 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 Ø1" 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:

↵

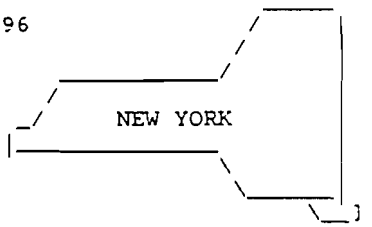
to select the 'Create/Update/Display Record' option.

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.

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

MAIN MENU WITH FARM NUMBER PROMPT

```
                                        DATE: 1/4/1996
CORNELL COOPERATIVE EXTENSION

Prepared by
DEPARTMENT OF AGRICULTURAL, RESOURCE,
AND MANAGERIAL ECONOMICS
CORNELL UNIVERSITY

Dairy Farm Business Summary   Version 3.2 (C) 1995

 [ ] Create/Update/Display Record   [ ] Calculate and Print Farm Summary
 [ ] Verify Record                  [ ] Run Install Program
 [ ] Delete Record                  [ ] Help

                          [ ] 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 46007 and the number is written in the space labelled "Processing number".

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

SCREEN 1.

Name Henry Holstein
Farm Name
Address R.R.1 Box 123
Howardville NY 12345-1239
Phone no. 607-255-8429

County Suffolk

Proc. number 46007 Year 1995
(X) complete, ( ) entered, ( ) ready

Update Screens:

Type the farm number:

46007 ↵

Micro DFBS will find the file 46007.95. 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 below. 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).

Screen #1

FARM INFORMATION

```
                                                          Verified [N]
Farm No. ........ 46007
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:

Holstein Haven ↵ (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.

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

[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. ..... 46007
Operator's Name . Henry Holstein
Farm Name ..... Holstein Haven
Address ..... R. R. 1, Box 123
City ..... Howardville
State ..... NY
Zip ..... 12345-1234
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.46007 Screen #2

MACHINERY AND EQUIPMENT INVENTORY AND DEPRECIATION

Machinery & Equipment Inventory Beginning		$ 188000	End $ 0
Machinery & Equipment Purchased	+ $	0	
Noncash Machinery Transfer to Farm	+ $	0	
Machinery & Equipment Sold	- $	0	
1995 Tax Depreciation	- $	0	
Total Beginning Inventory After Changes			$ 188000
Machinery Appreciation (end less beginning after changes)			$-188000

Part of page 1 of Henry Holstein'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 ↵ (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 ↵ 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.

MACHINERY & EQUIPMENT INVENTORY & DEPRECIATION (do not include leased items)

Beginning of Year Inventory	$ 188,000	End of Year Inventory	$ 250,000
Machinery & Equipment Purchased	+ 100,000		
Noncash Mach. Transfer to Farm (e.g., gifts/inheritances)	+ 2,500		
Machinery & Equipment Sold	- 300		
1995 Tax Depreciation[2]	- 34,000		
Total Beginning Inventory After Changes			$ 256,200
Machinery Appreciation (end less beginning after changes)			$ -6,200

[2]Exclude buildings and cattle from ACRS depreciation.

Farm No.46007 Screen #2

MACHINERY AND EQUIPMENT INVENTORY AND DEPRECIATION

Machinery & Equipment Inventory Beginning	$ 188000	End $ 250000	
Machinery & Equipment Purchased	+ $ 100000		
Noncash Machinery Transfer to Farm	+ $ 2500		
Machinery & Equipment Sold	- $ 300		
1995 Tax Depreciation	- $ 34000		
Total Beginning Inventory After Changes			$ 256200
Machinery Appreciation (end less beginning after changes)			$ -6200

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 Henry Holstein 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 all feeds and supplies is calculated by subtracting the beginning year inventory value from the end year inventory value. The inventory change for grown feeds is then transferred automatically to Screen 12, the accrual receipts screen. The inventory changes for purchased feeds and supplies are transferred to Screen 13, the accrual expenses screen.

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

FEED & SUPPLY INVENTORY			Total ↓			Total ↓	SCREEN 3. Invent. Change
Total Grown Feeds			$ 87000			$ 97550	$ 10550
PURCHASED FEEDS: (use p.11 definitions)							
Dairy grain & conc.	.....	x.....	=$ 2600	.....	x.....	=$ 3000	400
Dairy roughage	.....	.....	3200	.....	.....	3000	-200
Nondairy feed	.....	.....	_____	.....	.....	_____	_____
SUPPLIES:							
Machine: Parts	.....	x.....	=$ 2000	.....	x.....	=$ 2000	$_____
Fuel, oil, grease	.....	.....	1000	.....	.....	1000	_____
Livestock: Semen	.....	.....	1300	.....	.....	1000	-300
Vet. supplies	.....	.....	400	.....	.....	500	100
Bedding	.....	.....	100	.....	.....	150	50
Milking supplies	.....	.....	75	.....	.....	50	-25
Other lvstk. supplies	.....	.....	50	.....	.....	25	-25
Crops: Fertilizer	.....	.....	1250	.....	.....	0	-1250
Seeds	.....	.....	125	.....	.....	100	-25
Pesticides/Other	.....	.....	1700	.....	.....	1000	-700
Land/Bldg./Fence:	.....	.....	500	.....	.....	200	-300
Other:.....	.....	.....	320	.....	.....	1000	680
Total Feed & Supplies			$ 101620			$ 110575	

Farm No. 46007 FEED & SUPPLY INVENTORY Screen #3

Feed & Supply Inventory	Beg-Year	End-Year	Inventory Change
Total Grown Feeds	$ 87000	$ 97550	$ 10550
Purchased Feeds:			
Dairy Grain & Conc.	$ 2600	$ 3000	$ 400
Dairy Roughage	$ 3200	$ 3000	$ -200
Nondairy Feed	$ 0	$ 0	$ 0
Supplies:			
Machine: Parts	$ 2000	$ 2000	$ 0
Fuel, Oil, Grease	$ 1000	$ 1000	$ 0
Livestock: Semen	$ 1300	$ 1000	$ -300
Vet. Supplies	$ 400	$ 500	$ 100
Bedding	$ 100	$ 150	$ 50
Milking Supplies	$ 75	$ 50	$ -25
Other Supplies	$ 50	$ 25	$ -25
Crops: Fertilizer	$ 1250	$ 0	$ -1250
Seeds	$ 125	$ 100	$ -25
Pesticides and Other	$ 1700	$ 1000	$ -700
Land/Bldg./Fence:	$ 500	$ 200	$ -300
Other:	$ 320	$ 1000	$ 680
Total Feed & Supplies	$ 101620	$ 110575	

[6]There 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.

LIVESTOCK — SCREEN 4.

Number of leased/rented dairy cows at end of year 40

	Jan. 1, 1995 Inventory			December 31, 1995 Inventory Using: 1/1/95 Prices			12/31/95 Prices	
	No.	$ per Head	Total Value	No.	$ per Head	Total Value	$ per Head	Total Value
Dairy Cows:	120	$ 1000	$ 120,000	115	$ 1000	$ 115000	$ 1100	$ 126500
Total Dairy Cows	120		$ 120,000	115		$ 115000		$ 126500
Heifers:								
Bred Heifers	25	$ 850	$ 21250	30	$ 850	$ 25500	$ 900	$ 27000
Open (6 mo. - bred)	21	550	11550	20	550	11000	600	12000
Calves (< 6 mo.)	55	400	22000	55	400	22000	425	23375
Total Heifers	101		$ 54800	105		$ 58500		$ 62375
Bulls & Other Livestock:								
		$	$		$	$	$	$
Total Bulls & Other Livestock			$			$		$
Total Livestock	221		$ 174800	220		$ 173500		$ 188875

Farm No.46007 — LIVESTOCK INVENTORY — Screen #4

Leased Dairy Cows End Yr.: 40	Beginning of Year			End of Year Inventory Using: Beg. Prices			End Prices	
	No.	$ per Head	Total Value	No.	$ per Head	Total Value	$ per Head	Total Value
Dairy Cows:	120	$ 1000	$ 120000	115	$ 1000	$ 115000	$ 1100	$ 126500
	0	0	0	0	0	0	0	0
Total Dairy Cows	120		120000	115		115000		126500
Heifers: Bred	25	850	21250	30	850	25500	900	27000
Open	21	550	11550	20	550	11000	600	12000
Calves	55	400	22000	55	400	22000	425	23375
Total Heifers	101		54800	105		58500		62375
Bulls/Other Lvstk	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
Total Bulls & Other Livestock	0		0	0		0		0
TOTAL LIVESTOCK	221		174800	220		173500		188875

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.

REAL ESTATE INVENTORY BALANCE — SCREEN 5.

Land & Building Market Value: Beginning $ 385000 End $ 418000

New Real Estate:

Purchased: $ 12000 (land) + $ 28000 (bldgs./land imp.) - $ 5000 (lost capital) = +$ 35000 (value added)

Noncash Real Estate Transfer to Farm (e.g. gifts/inherit.) + 10000

Depreciation: from 1995 income tax (Include buildings in pre-ACRS, ACRS, MACRS & ADS) - 10000

Real Estate Sold:

Total sale price	$ 10500	
Sale expenses	- 250	
Net sale price		- 10250
Note/mortgage held by seller	- 0	
Net cash amount received in 1995	= 10250	

Total Beginning Value After Changes $ 409750

Real Estate Appreciation $ 8250

Farm No.46007 Screen #5

REAL ESTATE INVENTORY

```
Land and Building Market Value          Beginning $ 385000   End $ 418000

New Real Estate:

   Purchased:   12000  +    28000  -     5000   =+ $  35000
              land + bldgs./land imp.-lost cap. = value added

   Noncash Real Estate Transfer to Farm          + $  10000

Depreciation: From 1995 Income Tax               - $  10000

Real estate sold:
          Total sale price            $  10500
          Sale expenses             - $    250
               Net sale price                   - $  10250
          Note/mort. held by seller - $      0
          Net cash amt. rec'd       = $  10250
 Total Beginning Value After Changes                          $ 409750

 Real Estate Appreciation:                                    $   8250
```

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, bST usage, 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, except bST usage which is set to 5, 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)	157	X (1)D.H.I.	___(1)Bucket & carry	X (1)Single prop.
Heifers (dairy)	101	___(2) O.S.	___(2)Dumping station	___(2)Partnership
Bulls		DHI#21 461234	___(3)Pipeline	___(3)Corporation
Other: (type).....	[ ]	___(3)Other	X (4)Herringbone par.	
(# head).....	w.u.[1]	___(4)None	___(5)Other parlor	Primary Financial Recordkeeping System
Lbs. milk sold 3,500,000	Milking Frequency	bST Usage % of Herd: X (1)<25%	Dairy Housing	___(1)ELFAC II
	___(1)2x/day	___(2)25-75%	___(1)Stanchion/ Tie-Stall	___(2)Account Book
Avg. milk plant test 3.7% B.F.	X (2)3x/day	___(3)>75%	X (2)Freestall	___(3)Agrifax Mail-in
	___(3)Other	___(4)Stopped using in 1995	___(3)Combination	X (4)On-Farm Computer
		___(5)Not Used		___(5)Other

Farm No.46007 — Screen #6

LIVESTOCK and BUSINESS DESCRIPTION

Livestock	Average No. For Year	Production Record	Milking System	Primary Business Type
Dairy Cows	157	1 D.H.I	4 HERRINGBONE PAR	1 SINGLE PROP
Heifers(dairy)	101			
Bulls	0	D.H.I # 21461234		
Other:	0 w.u.			

Milk Production		Milking Frequency	bST Usage	Dairy Housing	Financial Recordkeeping System
milk sold (lb)	3500000	2 3X/DAY	1 <25%	2 FREESTALL	4 ON FARM COMP
Average Milk Plant Test 3.70% B.F.					

Table 1. Work Units For Livestock and Crops

	Work units per head or per acre
Livestock	
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
Crops	
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] ----------	
Livestock	
Dairy cows	7
Heifers	2
Bulls	2
Crops	
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

[7] Work 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. To enter a value with decimals in the full-time months column, you must type the decimal point. 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.

LABOR INVENTORY	Full-Time Months	Age	Years Educ.	Value of Management & Labor
Operator - 1	13	45	14	$ 25000
- 2	13	47	16	$ 30000
- 3				$
- 4				$
- 5				$
- 6				$
Family (paid employees)				
Family (unpaid)	12			
Hired (regular & seasonal)	22			
Total	60 ÷ 12 = 5.00 Worker Equivalent			

LAND INVENTORY	Acres Owned	Acres Rented	All Acres
Tillable land	300	150	450
Pasture (nontillable)	10	0	10
Woods & other nontillable	13	0	13
Total	323	150	473

Farm No.46007 Screen #7

LABOR and LAND INVENTORY

LABOR INVENTORY	Full-Time Months	Age	Years Educ.	Value of Mgmt & labor
Operator - 1	13.0	45	14	$25000
- 2	13.0	47	16	$30000
- 3	0.0	0	0	$ 0
- 4	0.0	0	0	$ 0
- 5	0.0	0	0	$ 0
- 6	0.0	0	0	$ 0
Family (paid emp.)	0.0			
Family (unpaid emp.)	12.0			
Hired (reg & seasonal)	22.0			
Total	60.00	÷ 12 =	5.00 Worker Equivalent	

LAND INVENTORY	Acres Owned	Acres Rented	All Acres
Tillable land	300	150	450
Pasture (nontillable)	10	0	10
Woods & other nontillable	13	0	13
Total	323	150	473

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 15). 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.

TILLABLE LAND USE	Acres (1st cut only)	Total Production (all cuttings)	Dry Matter Coeffi-cient	SCREEN 8. Total Tons Dry Matter
Hay Crop (1st cut acres only)	180	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxx	xxxxxxxxxxxxxx
Hay	xxxxxxxxxxxxxxxxx	280 tons	.88	246
Hay crop silage	xxxxxxxxxxxxxxxxx	900 tons	.40	360
Corn silage	110	2080 tons	.35	728
Other forage harvested	0	0 tons	.00	
Corn for grain	100	11148 dry sh. bu.	Total ton DM	1334
Oats	15	900 dry bu.		
Wheat	15	800 dry bu.		
Other:	0	[ ]w.u.		
Tillable pasture	30	[X] Check if Rotational Grazing at least 3 months		
Idle tillable acres	0	of year, changing paddock at least every 3 days.		
Total tillable acres	450			

Farm No.46007 Screen #8

TILLABLE LAND USE

	Acres (1st cut)	Total Production (all cuttings)	Dry Matter Coefficient	Total Tons Dry Matter
Hay Crop	180			
Hay		280 tons	0.88	246
Hay Crop Silage		900 tons	0.40	360
Corn Silage	110	2080 tons	0.35	728
Other Forage	0	0 tons	0.00	0
Corn for Grain	100	11148 bu.	Total Tons D.M.:	1334
Oats	15	900 bu.		
Wheat	15	800 bu.		
Other	0	0 w.u.		
Tillable Pasture	30	[x] Type 'x' if rotational grazing		
Idle Till. Acres	0	at least 3 months of year, changing paddock at least		
Total Till. Acres	450	every 3 days		

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.

ASSETS		SCREEN 9.
	January 1, 1995	December 31, 1995
Total Farm Inventory	$ 849,420	$ 967,450
Other Farm Assets:		
Farm cash, checking & savings	$ 3500	$ 875
Accounts receivable	35,000	29,825
Farm Credit stock	2,000	1,500
Other stock & certificates	25	25
Prepaid expenses	x 300 x	x 400 x
Total Farm Assets	$ 890,245	$ 1,000,075
Nonfarm Assets:		
Personal cash, checking & savings	$ 12,000	$ 11,000
Cash value life insurance	6,000	6,200
Nonfarm real estate	10,500	11,000
Personal share auto	14,280	12,860
Stock & bonds	7,000	8,500
Household furnishings	8,000	8,000
Other (include mortgages & notes)	0	0
Total Nonfarm Assets	$ 57,780	$ 57,560
TOTAL ASSETS (not including leases)	$ 948,025	$ 1,057,635

Farm No.46007 Screen #9

FARM FAMILY FINANCIAL SITUATION--ASSETS

	January 1, 1995	December 31, 1995
Total Farm Inventory	$ 849420	$ 967450
Other Assets:		
Farm Cash, Check/Saving	3500	875
Accounts Receivable	35000	29825
Farm Credit Stock	2000	1500
Other Stock and Cert.	25	25
Prepaid Expenses	300	400
Total Farm Assets:	$ 890245	$ 1000075
Nonfarm Assets:		
Personal Cash, Check/Saving	$ 12000	$ 11000
Cash Value Life Insurance	6000	6200
Nonfarm Real Estate	10500	11000
Personal Share Auto	14280	12860
Stocks & Bonds	7000	8500
Household Furnishings	8000	8000
Other	0	0
Total Nonfarm Assets	$ 57780	$ 57560
TOTAL ASSETS	$ 948025	$ 1057635

Financial leases are entered in Screen 10. The columns titled "amount of each payment", "no. of payments in 1995", "no. of payments/full year", and "no. of payments remaining" from the data check-in form are entered on Screen 10. The total 1995 expense column is calculated. The order of data entry is across rows.

Leased item	Amount of each payment	No. of payments in 1995	Total 1995 expense	No. of payments/ full year	SCREEN 10. No. of payments remaining
Cattle:	$ 80	12	$ 960	12	6
		Total	$ 960 [1]		
Equipment:	$ 400	12	$ 4800	12	3
		Total	$ 4800 [2]		
Structures:	$ 800	12	$ 9600	12	40
		Total	$ 9600 [3]		

[1]Enter under "Cattle leases" on Screen 13, page 13.
[2]Enter under "Machine hire, rent & lease" on Screen 13, page 13.
[3]Enter under "Real Estate rent/lease" on Screen 13, page 13.

Farm No.46007 Screen #10

FINANCIAL LEASES

Leased Item	Amount of Each Pymt	No. of Payments in 1995	Total 1995 Expense	No. of Payments/ Full Year	No. of Payments Remaining
Cattle	$ 80	12	$ 960	12	6
	$ 0	0	$ 0	0	0
	$ 0	0	$ 0	0	0
		Total	$ 960		
Equipment	$ 400	12	$ 4800	12	3
	$ 0	0	$ 0	0	0
	$ 0	0	$ 0	0	0
		Total	$ 4800		
Structures	$ 800	12	$ 9600	12	40
	$ 0	0	$ 0	0	0
	$ 0	0	$ 0	0	0
		Total	$ 9600		

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					DEBT PAYMENTS				
Creditor (the first 12 characters will be used as input.)	Amount Jan.1, 1995 ($)	Amount Dec. 31, 1995 ($)	Amount of New Borrowings ($)	Amt. of Debt Refinanced ($)	Actual 1995 Payments Principal ($)	Actual 1995 Payments Interest ($)	Beg. 1996 Int. Rate (%)	Planned 1996 Amt. of Payments ($)	Planned 1996 Pymts. Per Year (no.)
Long Term Debt (≥10yrs.)									
FLB	202000	198400	x x		3600	17500	9	1700	12
			x x						
			x x						
			x x						
			x x						
Intermediate Term Debt (>1yr., <10yrs.)									
PCA	110000	80500	x x		29500	11500	12	3300	12
First Bank	99000	95240	x x		3760	7130	7.4	1000	12
John Deere	45000	133800	x x		11200	0	12	2000	12
			x x						
			x x						
			x x						
			x x						
			x x						
			x x						

FARM FAMILY FINANCIAL SITUATION (continued) — SCREEN 11. (continued)

LIABILITIES					DEBT PAYMENTS				
Creditor (the first 12 characters will be used as input.)	Amount Jan.1, 1995 ($)	Amount Dec. 31, 1995 ($)	Amount of New Borrowings ($)	Amt. of Debt Refinanced ($)	Actual 1995 Payments Principal ($)	Actual 1995 Payments Interest ($)	Beg. 1996 Int. Rate (%)	Planned 1996 Amt. of Payments ($)	Planned 1996 Pymts. Per Year (no.)
Farm Credit Stock	2000	1500							
Short Term Debt (1 year or less) (borrowed to purchase capital items)									
PCA	27000	30000	30000 x		27000	1800	8	2500	12
			x x						
			x x						
Operating Debt (borrowed to buy items entered as expenses in Screen 13)									
John Deere	2000	2500				200			
Accounts Payable	15050	50000							
Advanced Gov't Rec.	500	500							
Total Farm Liab/Pymts	$502550	$592440	$	$ 0	$75060	$38130			
Nonfarm Liab/Pymts	$	$ 5000	$ 6000 x		$ 1000	$ 100			
TOTAL LIAB/PYMTS (not including leases)	$502550	$597440	$		$76060	$38230			

net reduction planned in: operating debt: $ 1500

accounts payable: 40000

Total Nonfarm Pymts. $ 1100

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. Do not move the previous year's data to a different input line. The planned payments from previous year's data are used in the calculation of current portion for long term and intermediate term debt.

Farm No.46007 LIABILITIES & PLANNED DEBT PAYMENT SCHEDULE Screen #11

LIABILITIES:	Amount Jan. 1, 1995	Amount Dec. 31, 1995	Amount of new Borrowings	DEBT PAYMENTS: Actual 1995 Principal	Actual 1995 Int.	Planned 1996 Int. Rate	Planned 1996 Amt.of Pymts	Planned 1996 Pymts. / Yr
*Long Term:								
FLB	$ 202000	$ 198400	$ 0	$ 3600	$ 17500	9.00	$ 1700	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
*Intermediate:								
PCA	$ 110000	$ 80500	$ 0	$ 29500	$ 11500	12.00	$ 3300	12
First Bank	$ 99000	$ 95240	$ 0	$ 3760	$ 7130	7.40	$ 1000	12
John Deere	$ 45000	$ 133800	$ 0	$ 11200	$ 0	12.00	$ 2000	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:	Jan. 1, 1995	Dec. 31, 1995	Amount of new Borrowings	Actual 1995 Principal	Actual 1995 Int.	Planned 1996 Int Rate	Planned 1996 Amt Of Pymts	Planned 1996 Pymts /Yr
FCB Stock	$ 2000	$ 1500						
*Short Term:								
PCA	$ 27000	$ 30000	$ 30000	$ 27000	$ 1800	8.00	$ 2500	12
	$ 0	$ 0	$ 0	$ 0	$ 0	0.00	$ 0	12
	$ 0	$ 0	$ 0	$ 0	$ 0	0.00	$ 0	12
*Operating Debt:						Net Reduction .Planned:		
John Deere	$ 2000	$ 2500			$ 200	Oper. Debt	$	1500
	$ 0	$ 0			$ 0		$	0
*Accts. Pay.:	$ 15050	$ 50000			$ 0	Accts Pay	$	40000
*Adv Gov Rec.	$ 500	$ 500						
*Total Farm:	$ 502550	$ 592440		$ 75060	$ 38130			
*Nonfarm Liab	$ 0	$ 5000	$ 6000	$ 1000	$ 100	Total Nonfarm Payments	$	1100
TOTAL:	$ 502550	$ 597440		$ 76060	$ 38230			

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 1995 RECEIPTS AND CHANGES IN INVENTORY AND ACCOUNTS RECEIVABLE

SCREEN 12.

Farm Receipts	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk 3,500,000 lbs.	$ 437500		xxxxxxxxx		$ -2151		$ 435349
Dairy Cattle	20400		$ -1300				19100
Dairy Calves	4500		xxxxxxxxx				4500
Other Livestock	0						0
Crops	12500		10550		-2024		21026
Government Receipts	10950						10950
Custom Machine Work	3500		xxxxxxxxx		-1000		2500
Gas Tax Refunds	700		xxxxxxxxx				700
Other: ..... $							
..... $							
..... $							
Total Other	0		xxxxxxxxx				0
TOTAL	$ 490,050		$ 9250		$ -5175		$ 494125
Sale of other stock & certificates (exclude Farm Credit stock)							$ 1725

Nonfarm Receipts:

Cash income (describe & itemize largest amounts:
..... : $ .....; ..... : $ .....) = $ 26500

Cash used in the business from nonfarm capital $ 2600

Noncash capital transferred to farm business for cattle, crops, etc. (e.g. gifts/inheritances) [excluding machinery (enter Screen 2) & real estate (enter Screen 5)] $ 1050

Farm No.46007 Screen #12

SUMMARY OF YEARLY RECEIPTS & CHANGES IN INVENTORY & ACCOUNTS RECEIVABLE

Receipts	Cash Receipts	+	Changes in Inventory	+	Changes in Accts Rec.	=	Accrual Receipts
Milk 3500000 lbs	$ 437500				$ -2151		$ 435349
Dairy Cattle	$ 20400		$ -1300		$ 0		$ 19100
Dairy Calves	$ 4500				$ 0		$ 4500
Other Livestock	$ 0		$ 0		$ 0		$ 0
Crops	$ 12500		$ 10550		$ -2024		$ 21026
Government Recpts	$ 10950		$ 0		$ 0		$ 10950
Cust Mach Work	$ 3500				$ -1000		$ 2500
Gas Tax Refunds	$ 700				$ 0		$ 700
Other	$ 0				$ 0		$ 0
TOTAL	$ 490050		$ 9250		$ -5175		$ 494125
Sale of Other Stock & Certificates (exclude Farm Credit Stock)							$ 1725

NONFARM RECEIPTS	
Cash Income	$ 26500
Cash Used in Business from Nonfarm Capital	$ 2600
Noncash Capital Transferred to Farm Business, Cattle & Crops	$ 1050

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 1995 EXPENSES & CHANGES IN INVENTORY & ACCOUNTS PAYABLE

See page 11 for instructions.							SCREEN 13.
Farm Expenses	Cash Amount Paid	-	Change in Inventory or Prepaid Expenses	+	Change in Acct. Pay.	=	Accrual Expenses
Hired Labor	$ 48,750		$ x x		$		$ 48,750
Feed (see Guideline 2 on page 11)							
Dairy grain & concentrate	110,000		400		15325		124,925
Dairy roughage	20,000		-200				20,200
Nondairy feed	0						
Machinery							
Machine hire, rent & lease	9,300		x x				9,300
Machinery repairs & farm vehicle exp.	40,200						40,200
Fuel, oil & grease	14,000				-200		13,800
Livestock							
Replacement livestock	500		x x				500
Breeding	5,000		-300				5,300
Veterinary & medicine	10,650		100		-2200		8,350
Milk marketing	8,400		x x				8,400
Bedding	5,000		50				4,950
Milking supplies	4,000		-25				4,025
Cattle lease/rent	960		x x				960
Custom boarding	7000		x 100 x				6900
Other livestock expense	4,440		-25				4,465
Crops							
Fertilizer & lime	17000		-1250				18,250
Seeds & plants	8,300		-25				8,325
Spray, other crop expense	8,000		-700				8,700
Real Estate							
Landing, building, fence repair	6000		-300		22000		28,300
Taxes	8,500		x x				8,500
Rent & lease	9,600		x x				9,600
Other							
Insurance	4000		x x				4,000
Utilities (farm share)	13,800		x x		25		13,825
Interest	38,130		x x				38,130
Miscellaneous	5,000		680				4,320
TOTAL OPERATING	$ 406,530		$ -1495		$ 34,950		$ 442,975
Expansion livestock	$ 0		x x		$		$ 0
Purchase of other stock & certificates (exclude Farm Credit stock)							$ 4,000
Nonfarm Cash Expenses							
Personal withdrawals & family expenditures							$ 47,960

Farm No.46007 SUMMARY OF YEAR'S EXPENSES Screen #13

EXPENSES	Cash Amount Paid	-	Change in Inv. or Prepd exp	+	Change In Accts Payable	=	Accrual Expenses
Hired Labor	$ 48750		$ 0		$ 0		$ 48750
FEED							
Dairy Grain/Conc	$ 110000		$ 400		$ 15325		$ 124925
Dairy Roughage	$ 20000		$ -200		$ 0		$ 20200
Nondairy Feed	$ 0		$ 0		$ 0		$ 0
MACHINERY							
Mach Hire/Rent/Ls	$ 9300		$ 0		$ 0		$ 9300
Mach rep./vehicle	$ 40200		$ 0		$ 0		$ 40200
Fuel Oil & Grease	$ 14000		$ 0		$ -200		$ 13800
LIVESTOCK							
Replacement Lvstk	$ 500		$ 0		$ 0		$ 500
Breeding	$ 5000		$ -300		$ 0		$ 5300
Vet & Medicine	$ 10650		$ 100		$ -2200		$ 8350
Milk Marketing	$ 8400		$ 0		$ 0		$ 8400
Bedding	$ 5000		$ 50		$ 0		$ 4950
Milking Supplies	$ 4000		$ -25		$ 0		$ 4025
Cattle Lease	$ 960		$ 0		$ 0		$ 960
Custom Boarding	$ 7000		$ 100		$ 0		$ 6900
Other Lvstk Exp	$ 4440		$ -25		$ 0		$ 4465

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	$ 17000		$ -1250		$ 0		$ 18250
Seeds & Plants	$ 8300		$ -25		$ 0		$ 8325
Spray/Other Exp	$ 8000		$ -700		$ 0		$ 8700
REAL ESTATE							
Land/Bldg Repair	$ 6000		$ -300		$ 22000		$ 28300
Taxes	$ 8500		$ 0		$ 0		$ 8500
Rent/Lease	$ 9600		$ 0		$ 0		$ 9600
OTHER							
Insurance	$ 4000		$ 0		$ 0		$ 4000
Utilities	$ 13800		$ 0		$ 25		$ 13825
Interest Paid	$ 38130		$ 0		$ 0		$ 38130
Miscellaneous	$ 5000		$ 680		$ 0		$ 4320
TOTAL	$ 406530		$ -1495		$ 34950		$ 442975
Expansion Lvstk.	$ 0		$ 0		$ 0		$ 0
Purchase of Other Stock & Certificates(exclude Farm Credit)							$ 1000
NONFARM CASH EXPENSES							
Personal Withdrawals & Family Expenditures							$ 47960

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.

BREAKDOWN OF 1995 ACCRUAL CROP EXPENSES BY CROP — SCREEN 14.

Crop	Accrual Fertilizer & Lime	Accrual Seeds & Plants	Accrual Spray, Other Crop Expenses
Hay crop (silage & dry)	$ 5,000	$ 3,500	$ 1000
Corn (silage & grain)	12,000	4,500	6000
Pasture	500	0	0
All other crops	750	325	1700
Total	$ 18,250	$ 8,325	$ 8700

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 (underpreciated balance) of: (as of December 31, 1995)

Purchased livestock (included in livestock inventory, Screen 4)	$ 500	
Machinery & equipment (included in machinery inventory, Screen 2)	$ 150,000	
Building & improvements (included in Real Estate inventory, Screen 5)	$ 55,000	
Part that is single purpose livestock structure, silos, & grain bins (% or $)	____ % OR	$ 3000
Land (included in land and building inventory, Screen 5)	$ 200,000	
Operator residences[1] (included in land & building inventory, Screen 5)	$ 25,000	
Nonfarm assets (included in Screen 9)	$ 40,000	

Market Value of:

Operator residences (included in land & bldg. inventory, Screen 5)	$ 50,000	
Single purpose livestock structure, silos & grain bins ($ or % of R.E. inventory)	____ % OR	$ 20,000
Purchased Livestock ($ or % of livestock inventory)	____ % OR	$ 500

Proprietorship:

Tax filing status[2]	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	$	$	$	$	$

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

[2]1=single, 2=married filing jointly, 3=married filing separately, 4=head of household.

Farm No.46007 Screen #14

BREAKDOWN OF 1995 ACCRUAL CROP EXPENSES BY CROP

Crop	Acc Fert./Lime	Acc Seeds/Plants	Acc Spry/Othr Exp
Hay Crop (silage & dry)	$ 5000	$ 3500	$ 1000
Corn (silage & grain)	$ 12000	$ 4500	$ 6000
Pasture	$ 500	$ 0	$ 0
All other crops	$ 750	$ 325	$ 1700
TOTAL	$ 18250	$ 8325	$ 8700

OPTIONAL INPUT FOR DEFERRED TAX CALCULATIONS

Tax Basis (undepreciated balance) of: (as of December 31, 1993)		
Purchased livestock		$ 500
Machinery & equipment		$ 150000
Buildings & improvements		$ 55000
Part that is single purpose livestock structure, silos, & grain bins (% or $)	0% or	$ 3000
Land		$ 200000
Operator residences		$ 25000
Nonfarm assets		$ 40000

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

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

Market value of:		
Operator residences		$ 50000
Single purpose livestock structure, silos & grain bins (% of R.E. inventory or $)	0% or	$ 20000
Purchased Livestock (% of Livestock inventory or $)	0%	$ 500
Proprietorship Information:		
Tax filing status		2
Nonfarm income of operator on which self-employment tax was paid		$ 0

PARTNERSHIP INFO.	PARTNER 1	PARTNER 2	PARTNER 3	PARTNER 4	PARTNER 5
Tax Filing Status	0	0	0	0	0
Percent share of Farm					
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:

46007 ↵ (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 "Harvey Holstein", 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:

46007 ↵ (return/enter)

The following will be displayed on the screen[9]:

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 .prn (<farm no.>.prn). 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)11 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.

---

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

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

1994 FILE DOES NOT EXIST - SETTING VALUES TO 0
1993 FILE DOES NOT EXIST - SETTING VALUES TO 0

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

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

CORNELL COOPERATIVE EXTENSION
Prepared by DEPARTMENT OF AGRICULTURAL,
RESOURCE, AND MANAGERIAL ECONOMICS
CORNELL UNIVERSITY

Name _____

Address _____

_____

1995 DAIRY FARM BUSINESS SUMMARY

FARM NO. 46007 JANUARY 25, 1996

PROGRESS OF THE FARM BUSINESS

SELECTED FACTORS	1993	1994	1995
Size of Business			
Avg # of cows	140	150	157
Avg # of heifers	130	155	101
Milk sold, lbs.	2830312	2966796	3500000
Worker equiv.	4.75	4.67	5.00
Total tillable acres	555	555	450
Rates of Production			
Milk sold per cow,lbs.	20217	19779	22293
Hay DM per acre,tons	1.3	1.7	3.4
Corn silage per acre,tons	15	11	19
Labor Efficiency			
Cows per worker	29	32	31
Milk sold per worker,lbs.	595855	635742	700000
Cost Control			
Grain & conc. purch. as % milk sales	33%	29%	29%
Dairy feed & crop exp. per cwt. milk	$ 5.43	$ 4.93	$ 5.15
Labor and mach. costs per cow	$ 1164	$ 1113	$ 1351
Operating cost of prod. milk per cwt.	$ 11.26	$ 12.45	$ 11.01
Capital Efficiency (average for year)			
Farm capital per cow	$ 6870	$ 6504	$ 6236
Machinery and equipment per cow	$ 1846	$ 1679	$ 1413
Asset turnover ratio	0.47	0.45	0.52
Profitability			
Net farm income w/o apprec.	$ 34584	$ 5600	$ 6100
Net farm income w/ appreciation	$ 47596	$ 6500	$ 24250
Labor & management income per op/mgr	$ 12212	$ -15767	$ -15592
Rate return on equity capital w/apprec	3.9%	-5.8%	-12.1%
Rate return on all capital w/apprec.	3.8%	-0.5%	-1.0%
Financial Summary			
Farm net worth, end year	$ 444959	$ 470285	$ 407635
Debt to asset ratio	0.54	0.53	0.60
Farm debt per cow	$ 3712	$ 3444	$ 3996
Cash flow coverage ratio	0.74	0.92	0.73

SINGLE PROP, ON FARM COMPUTER, OWNER, FULL-TIME, DAIRY.*

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FARM NO. 46007 JANUARY 25, 1996

INCOME STATEMENT

EXPENSES	Cash Amount paid	- Change in Inventory or Prepaid Expense*	+ Change in Accounts Payable**	= Accrual Expenses
Hired Labor	$ 48750	$ 0<<	$ 0	$ 48750
Feed				
Dairy grain & conc.	110000	400	15325	124925
Dairy roughage	20000	-200	0	20200
Nondairy	0	0	0	0
Machinery				
Mach hire, rent/lease	9300	0<<	0	9300
Mach. repair & veh. exp.	40200	0	0	40200
Fuel, oil & grease	14000	0	-200	13800
Livestock				
Replacement livestock	500	0<<	0	500
Breeding	5000	-300	0	5300
Veterinary & medicine	10650	100	-2200	8350
Milk marketing	8400	0<<	0	8400
Bedding	5000	50	0	4950
Milking supplies	4000	-25	0	4025
Cattle lease/rent	960	0<<	0	960
Custom Boarding	7000	100<<	0	6900
Other livestock expense	4440	-25	0	4465
Crops				
Fertilizer & lime	17000	-1250	0	18250
Seeds & plants	8300	-25	0	8325
Spray, other crop exp.	8000	-700	0	8700
Real Estate				
Land/bldg/fence repair	6000	-300	22000	28300
Taxes	8500	0<<	0	8500
Rent & lease	9600	0<<	0	9600
Other				
Insurance	4000	0<<	0	4000
Utilities (farm share)	13800	0<<	25	13825
Interest paid	38130	0<<	0	38130
Miscellaneous	5000	680	0	4320
TOTAL OPERATING	$ 406530	$ -1495	$ 34950	$ 442975
Expansion livestock	$ 0	$ 0<<	$ 0	$ 0
Machinery depreciation				$ 34000
Building depreciation				$ 10000
TOTAL ACCRUAL EXPENSES				$ 486975

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

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

FARM NO. 46007 JANUARY 25, 1996

INCOME STATEMENT (continued)

RECEIPTS	Cash Receipts	+ Change in Inventory*	+ Change in Accounts Receivable	= Accrual Receipts
Milk sales	$ 437500		$ -2151	$ 435349
Dairy cattle	20400	$ -1300	0	19100
Dairy calves	4500		0	4500
Other livestock	0	0	0	0
Crops	12500	10550	-2024	21026
Gov't receipts	10950	0**	0	10950
Custom machine work	3500		-1000	2500
Gas tax refund	700		0	700
Other	0		0	0
-Noncash capital transfer		(-) 1050***		(-) 1050
TOTAL ACCRUAL RECEIPTS	$ 490050	$ 8200	$ -5175	$ 493075

*Change in lvstk 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.	+ Appreci-ation	= With Apprec.
RETURN TO OPERATOR(S) & FAMILY LABOR UNPAID, MGMT., & EQUITY CAPITAL:			
Total Accrual Receipts	$ 493075		
Livestock Appreciation		$ 15375	
Machinery Appreciation		-6200	
Real Estate Appreciation		8250	
Other Stock/Cert. Appreciation		725	
			$ 511225
- Total Accrual Expenses	$ 486975		$ 486975
= NET FARM INCOME	$ 6100		$ 24250
RETURN TO OPERATOR(S) LABOR & MANAGEMENT:			
Net Farm Income	$ 6100		
- Family Labor Unpaid @ $1450/mo.	17400		
- Interest on $ 397665 Average Equity Capital @ 5% Real Rate	19883		
= LABOR & MANAGEMENT INCOME PER FARM	$ -31183	(2.00 Operator/Farm	
LABOR & MANAGEMENT INC. PER OP./MGR.	$ -15592		
RETURN TO EQUITY CAPITAL:			
Net Farm Income	$ 6100		$ 24250
- Family Labor Unpaid @ $1450/mo.	17400		17400
- Value of Operator's Labor & Management	55000		55000
= RETURN TO EQUITY CAPITAL	$ -66300		$ -48150
Rate of Return on Equity Capital	-16.7%		-12.1%
RETURN TO ALL CAPITAL:			
Return to Equity Capital	$ -66300		$ -48150
+ Interest Paid	38130		38130
= RETURN TO ALL CAPITAL	$ -28170		$ -10020
Rate of Return on All Capital	-2.9%		-1.0%

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FARM NO. 46007 JANUARY 25, 1996

1995 BALANCE SHEET

FARM BUSINESS

ASSETS	Jan. 1	Dec. 31
Current		
Farm cash, chkg & savings	$ 3500	$ 875
Accts. rec.	35000	29825
Prepaid exp.	300	400
Feed/supplies	101620	110575
Total	$ 140420	$ 141675
Intermediate		
Dairy cows:		
owned	120000	126500
leased	1305	225
Heifers	54800	62375
Bulls/other lvstk.	0	0
Mach/eq owned	188000	250000
Mach/eq leased	5489	284
FCB Stock	2000	1500
Other stock & cert.	25	25
Total	$ 371618	$ 440908
Long-Term		
Land/buildings:		
owned	385000	418000
leased	33830	26505
Total	$ 418830	$ 444505
Total Farm Assets	$ 930869	$1027089

LIABILITIES & NET WORTH	Jan. 1	Dec. 31
Current		
Accounts payable	$ 15050	$ 50000
Operating debt		
John Deere	2000	2500
	0	0
Short term:		
PCA	27000	30000
	0	0
	0	0
Advanced Gov. Rec.	500	500
Current portion:		
Intermediate	29862	45162
Long Term	7830	2652
Total	$ 82242	$ 130814
Intermediate		
PCA	118415	48857
First Bank	90748	90116
John Deere	14976	125404
	0	0
	0	0
	0	0
	0	0
	0	0
	0	0
Financial lease (Cattle/mach.)	6793	508
FCB Stock	2000	1500
Total	$ 232931	$ 266386
Long-Term		
FLB	194170	195748
	0	0
	0	0
	0	0
	0	0
Fin. lease (struc)	33830	26505
Total	$ 228000	$ 222254
Total Farm Liab.	$ 543174	$ 619454
FARM NET WORTH	$ 387695	$ 407635

NONFARM

Nonfarm Assets	Jan. 1	Dec. 31
Pers. cash/chkg/savings	$ 12000	$ 11000
Cash value of life insur.	6000	6200
Nonfarm Real Estate	10500	11000
Auto (personal share)	14280	12860
Stocks & Bonds	7000	8500
Household Furnishings	8000	8000
All other	0	0
Total Nonfarm	$ 57780	$ 57560

Nonfarm Liab.	Jan. 1	Dec. 31
	$ 0	$ 5000
NONFARM NET WORTH	$ 57780	$ 52560

FARM & NONFARM

	Jan. 1	Dec. 31
Total Farm & Nonfarm Assets	$ 988649	$1084649
Total Farm & Nonfarm Liabilities	$ 543174	$ 624454
FARM & NONFARM NET WORTH	$ 445475	$ 460195

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FARM NO. 46007 JANUARY 25, 1996

BALANCE SHEET ANALYSIS

Financial Ratios		Farm Business	Farm & Nonfarm
Percent equity		40%	42%
Debt to asset ratios:	Total	0.60	0.58
	Long-term	0.50	
	Intermediate/current	0.68	

Debt Analysis

Accounts payable as % of total debt	8%
Long-term debt as a % of total debt	36%
Current & intermediate debt as % of total debt	64%

Debt Levels

	Per Cow	Per Tillable Acre Owned
Total farm debt	$ 3996	$ 2065
Long-term debt	1434	741
Intermediate + Long-term	3153	1629
Intermediate + current	2563	1324

Farm Inventory	Real Estate	Machinery & Equipment	Livestock	Feed & Supplies
Beginning of Year	$ 385000	$ 188000	$ 174800	$ 101620
Purchases	40000*	100000		
+ Noncash Transfer to Farm	10000	2500		
- Lost Capital	5000			
- Net Sales	10250	300		
- Depreciation	10000	34000		
= Net Investment	24750	68200	-1300**	
Appreciation	8250	-6200	15375	
End of Year	$ 418000	$ 250000	$ 188875	$ 110575

* $ 12000 Land + $ 28000 Building.

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

FARM NO. 46007 6 JANUARY 25, 1996

STATEMENT OF OWNER EQUITY (RECONCILIATION)

		Farm Business
Beginning of year farm net worth		$ 387695
Net farm income without appreciation	$ 6100	
+ Nonfarm cash income	+ 26500	
- Personal withdrawals and family expenditures excluding nonfarm borrowings	- 41960	
RETAINED EARNINGS	=	+$ -9360
Nonfarm noncash transfers to farm	$ 13550	
+ Cash used in business from nonfarm capital	+ 2600	
- Note/mortgage from farm real est. sold (nonfarm)	- 0	
CONTRIBUTED/WITHDRAWN CAPITAL	=	+$ 16150
Appreciation	$ 18150	
- Lost capital	- 5000	
CHANGE IN VALUATION EQUITY	=	+$ 13150
IMBALANCE/ERROR		-$ 0
End of year farm net worth		=$ 407635
Change in net worth with appreciation		$ 19940

Change in Net Worth	Farm Business	Farm & Nonfarm
Without appreciation	$ 1790	
With appreciation	$ 19940	$ 14720

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. 46007 | 7 | JANUARY 25, 1996

ANNUAL CASH FLOW STATEMENT

Cash Flow From Operating Activities			
Cash farm receipts	$ 490050		
- Cash farm expenses	406530		
= Net cash farm income		$ 83520	
Nonfarm income	26500		
- Personal withdrawals/ family expenses, including nonfarm debt payments	47960		
+ Net cash nonfarm income		$ -21460	
= Net Provided by Operating Activities			$ 62060
Cash Flow From Investing Activities			
Sale of assets: machinery	$ 300		
+ real estate	10250		
+ other stock/cert.	1725		
= Total asset sales		$ 12275	
Capital purchases: expansion livestock	$ 0		
+ machinery	100000		
+ real estate	40000		
+ other stock/cert.	1000		
- Total invested in farm assets		$ 141000	
= Net Provided by Investing Activities			$-128725
Cash Flow From Financing Activities			
Money borrowed (intermediate & long-term)	$ 100000		
+ Money borrowed (short-term)	30000		
+ Increase in operating debt	500		
+ Cash from nonfarm capital used in business	2600		
+ Money borrowed - nonfarm	6000		
= Cash inflow from financing		$ 139100	
Principal payments (inter. & long-term)	$ 48060		
+ Principal payments (short-term)	27000		
+ Decrease in operating debt	0		
- Cash outflow for financing		$ 75060	
= Net Provided by Financing Activities			$ 64040
Cash Flow From Reserves			
Beginning farm cash, checking & savings		$ 3500	
- Ending farm cash, checking & savings		875	
= Net Provided from Reserves			$ 2625
Imbalance (error)			$ 0

FARM NO. 46007 8 JANUARY 25, 1996

REPAYMENT ANALYSIS

Debt Payments	Planned for 1995*	Made in 1995	Planned for 1996
Long term	$ 25692	$ 21100	$ 20400
Intermediate term	49788	63090	75600
Short-term	22802	28800	30000
Operating (net reduction)	0	0	1500
Accounts payable (net reduction)	47364	0	40000
Total	$ 145646	$ 112990	$ 167500
(% made of planned = 78%)			
Per cow	$ 928	$ 720	
Per cwt. 1995 milk	$ 4.16	$ 3.23	
Percent of total 1995 receipts	30%	23%	
Percent of 1995 milk receipts	33%	26%	

* If on Business Summary in 1994.

Cash Flow Coverage Ratio

Cash Farm Receipts	$ 490050	
- Cash Farm Expenses	406530	
+ Interest Paid	38130	
- Net Pers. Withdls from Farm**	15460	
(A) = Amount Available for Debt Service		$ 106190
(B) = Debt Payments Planned for 1995		$ 145646
(A / B) Cash Flow Coverage Ratio for 1995		0.73

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

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FARM NO. 46007 JANUARY 25, 1996

CROPPING PROGRAM ANALYSIS

Land	Owned	Rented	Total
Tillable	300	150	450
Nontillable Pasture	10	0	10
Other nontillable	13	0	13
Total	323	150	473

Crop Yields	Acres	Total Production	Production Per Acre
Dry hay		246 Tons DM	
Hay crop silage		360 Tons DM	
Total Hay Crop Production	180	606 Tons DM	3.37 Tons DM
Corn silage	110	2080 Tons	18.91 Tons
		728 Tons DM	6.62 Tons DM
Other forage	0	0 Tons DM	0.00 Tons DM
Total Forage	290	1334 Tons DM	4.60 Tons DM
Corn grain	100	11148 Bushels	111.48 Bushels
Oats	15	900 Bushels	60.00 Bushels
Wheat	15	800 Bushels	53.33 Bushels
Other crops	0		
Tillable pasture	30		
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	$ 40.56	$ 57.14	$ 8.63	$ 0.51
Seeds & plants	18.50	21.43	3.24	0.19
Spray/other crop exp.	19.33	28.57	4.32	0.26
Total Crop Expense	$ 78.39	$ 107.14	$ 16.19	$ 0.96

Crop Expenses	Hay Crop /Acre	Hay Crop /Ton DM	Pasture /Till. Acre	Pasture /Total Acre
Fertilizer & lime	$ 27.78	$ 8.25	$ 16.67	$ 12.50
Seeds & Plants	19.44	5.78	0.00	0.00
Spray/other crop exp.	5.56	1.65	0.00	0.00
Total Crop Expense	$ 52.78	$ 15.68	$ 16.67	$ 12.50

Machinery	Total	Per Tillable Acre
Fuel, oil & grease	$ 13800	$ 30.67
Machinery repair & vehicle exp.	40200	89.33
Machine hire, rent & lease	9300	20.67
Interest (5%)	10950	24.33
Depreciation	34000	75.56
Total Machinery Cost	$ 108250	$ 240.56

Crop/Cow Factors

Total Tillable Acres per Cow	2.87
Total Forage Acres per Cow	1.85
Harvested Forage Dry Matter per Cow	8.50

ROTATIONAL GRAZING

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FARM NO. 46007 JANUARY 25, 1996

DAIRY ANALYSIS

Dairy Inventory	Dairy Cows No.	Dairy Cows Value	Heifers Bred No.	Heifers Bred Value	Heifers Open No.	Heifers Open Value	Calves No.	Calves Value
Beg. of Year	120	$ 120000	25	$ 21250	21	$ 11550	55	$ 22000
+ Change in Inv. (w/o apprec.)		-5000		4250		-550		0
+ Appreciation		11500		1500		1000		1375
= End of Year	115	$ 126500	30	$ 27000	20	$ 12000	55	$ 23375
Total End (incl. leased)	155							
Average Number	157		101 All Age Groups					

Milk Production	
Total milk sold	3500000 lbs.
Milk sold per cow	22293 lbs.
Average milk plant test	3.70 % butterfat

Accrual Receipts From Dairy	Total	Per Cow	Per Cwt.
Milk	$ 435349	$ 2773	$ 12.44
Dairy cattle (including culls)	19100	122	0.55
Dairy calves	4500	29	0.13
Total	$ 458949	$ 2923	$ 13.11

Accrual Costs and Profitability			
Operating cost of producing milk	$ 385249	$ 2454	$ 11.01
Purchased inputs cost of producing milk*	429249	2734	12.26
Total cost of producing milk	521532	3322	14.90
Net Farm Income without apprec.	6100	39	0.17
Net Farm Income with apprec.	24250	154	0.69

Dairy Related Accrual Expenses			
Purchased dairy grain & concentrates	$ 124925	$ 796	$ 3.57
Purchased dairy roughage	20200	129	0.58
Total Purchased Dairy Feed	145125	924	4.15
Purchased grain & concentrates as % of milk receipts	29%		
Purchased feed & crop exp.	$ 180400	$ 1149	$ 5.15
Purchased feed & crop exp. as % of milk receipts	41%		
Breeding	$ 5300	$ 34	$ 0.15
Veterinary & medicine	8350	53	0.24
Milk marketing	8400	54	0.24
Bedding	4950	32	0.14
Milking Supplies	4025	26	0.12
Cattle lease	960	6	0.03
Custom boarding	6900	44	0.20
Other livestock expense	4465	28	0.13

D.H.I, HERRINGBONE PAR, FREESTALL, 3 TIMES/DAY, bST Usage = <25%.

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

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FARM NO. 46007 JANUARY 25, 1996

CAPITAL & LABOR EFFICIENCY ANALYSIS

Capital Efficiency (Average for Year)

	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Farm capital	$ 195796	$ 6236	$ 2176	$ 3263
Real estate		2749		1439
Machinery & equip.	44377	1413	493	

Asset Turnover Ratio 0.52

Labor Force	Months	Age	Years of Education	Value of Labor & Mgmt.
Operator number 1	13.0	45	14	$ 25000
Operator number 2	13.0	47	16	$ 30000
Family paid	0.0			
Family unpaid	12.0			
Hired	22.0			
Total	60.00 / 12 =	5.00 Worker Equivalent		
		2.00 Operator/Manager Equivalent		

Labor Efficiency

	Total	Per Worker
Cows, average no.	157	31
Milk sold, lbs.	3500000	700000
Tillable acres	450	90
Work units	1575	315

Labor Cost	Total	Per Cow	Per Cwt.
Value of Operator(s) Labor ($1450/month)*	$ 37700	$ 240	$ 1.08
Family unpaid ($1450/month)*	17400	111	0.50
Hired	48750	311	1.39
Total Labor	$ 103850	$ 661	$ 2.97
Machinery Cost (see page 9)	$ 108250	$ 689	$ 3.09
Total Labor & Machinery Costs	$ 212100	$ 1351	$ 6.06

* 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, in 1992 = $1,350/month, 1993 = $1,400/month, and 1994 = $1,450/month.

FARM NO. 46007 12 JANUARY 25, 1996

ANNUAL CASH FLOW WORKSHEET

Item	Receipt or Expense Total	Per Cow	Per Cwt.	Expected Change	1996 Projection
Average Number of Cows	157				
Cwt. of Milk Sold	35000				
ACCRUAL OPERATING RECEIPTS					
Milk	$ 435349	$2773	$12.44		$
Dairy cattle	19100	122	0.55		
Dairy calves	4500	29	0.13		
Other livestock	0	0	0.00		
Crops	21026	134	0.60		
Miscellaneous receipts	14150	90	0.40		
Total	$ 494125	$3147	$14.12		$
ACCRUAL OPERATING EXPENSES					
Hired labor	$ 48750	$ 311	$ 1.39		$
Dairy grain & concentrate	124925	796	3.57		
Dairy roughage	20200	129	0.58		
Nondairy feed	0	0	0.00		
Machine hire/rent/lease	9300	59	0.27		
Mach.repair + vehicle exp.	40200	256	1.15		
Fuel, oil & grease	13800	88	0.39		
Replacement livestock	500	3	0.01		
Breeding	5300	34	0.15		
Veterinary & medicine	8350	53	0.24		
Milk marketing	8400	54	0.24		
Bedding	4950	32	0.14		
Milking supplies	4025	26	0.12		
Cattle lease	960	6	0.03		
Custom boarding	6900	44	0.20		
Other livestock expense	4465	28	0.13		
Fertilizer & lime	18250	116	0.52		
Seeds & plants	8325	53	0.24		
Spray/other crop expense	8700	55	0.25		
Land, bldg., fence repair	28300	180	0.81		
Taxes	8500	54	0.24		
Real estate rent/lease	9600	61	0.27		
Insurance	4000	25	0.11		
Utilities	13825	88	0.40		
Miscellaneous	4320	28	0.12		
Total Less Interest Paid	$ 404845	$2579	$11.57		$
NET ACCRUAL OPERATING INCOME (w/o interest paid)	$ 89280	$ 569	$ 2.55		$
- Change in lvstk/crop inv	8200	52	0.23		
- Change in accounts rec.	-5175	-33	-0.15		
- Change in feed/supply inv	-1495	-10	-0.04		
+ Change in accts. payable*	34950	223	1.00		
NET CASH FLOW	$ 122700	$ 782	$ 3.51		$
- Net family withdrawals	15460	98	0.44		
Available for Farm	$ 107240	$ 683	$ 3.06		$
- Farm debt payments**	112990	720	3.23		
Avail. for Farm Investment	$ -5750	$ -37	$-0.16		$
- Capital purchases;	141000	898	4.03		
Additional Capital Needed					$

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

FARM NO. 46007 JANUARY 25, 1996

MACHINERY & EQUIPMENT INVENTORY
FEED AND SUPPLY INVENTORY
LIVESTOCK INVENTORY
REAL ESTATE INVENTORY
LIVESTOCK & BUSINESS DESCRIPTION

Milk per cow = 22293 lbs.

LABOR

Single proprietorship but Operator #2 months = 13.0 months.

LAND INVENTORY AND CROPS
ASSETS AND LIABILITIES

Scheduled debt payment > .35 of milk sales = 38%.
Debt per cow > $3500, = 3996.

FINANCIAL LEASES
RECEIPTS

Government receipts or other receipts > $5000.
Government Receipts = $ 10950 Other Receipts = $ 0
Gas tax refund in excess of $500.

EXPENSES
CROP EXPENSE BREAKDOWN
MANAGEMENT PERFORMANCE MEASURES

Net farm income w/o appreciation = $ 6100.
Labor & management income/operator < $0 or > $30,000 = $ -15592.
Rate return on equity capital w/o appreciation = -16.7.
Rate return on equity capital w/appreciation = -12.1.
Cash flow coverage ratio < .8 or > 1.2, = 0.73.
Cash inflow = $ 671425, Cash outflow = $ 671425, Imbalance =$ 0.

OTHER

Farm coded irregular.
Dairy Farm
Full-Time Farm
OWNER

Optional Cash Flow Statement
FARM NO. 46007 JANUARY 25, 1996

ANNUAL CASH FLOW STATEMENT

Cash Inflows			
Beginning farm cash, checking & savings		$ 3500	
Cash farm receipts		490050	
Sale of assets:	Machinery	300	
	Real estate	10250	
	Other stock & certificates	1725	
Money borrowed (intermediate & long-term)		100000	
Money borrowed (short-term)		30000	
Increase in operating debt		500	
Nonfarm income		26500	
Cash from nonfarm capital used in business		2600	
Money borrowed - nonfarm		6000	
TOTAL			$ 671425
Cash Outflows			
Cash farm expenses		$ 406530	
Capital purchases:	Expansion livestock	0	
	Machinery	100000	
	Real estate	40000	
	Other stock & certificates	1000	
Principal payments (intermediate & long-term)		48060	
Principal payments (short-term)		27000	
Decrease in operating debt		0	
Personal withdrawals & family expenditures, including nonfarm debt payments		47960	
Ending farm cash, checking & savings		875	
TOTAL			$ 671425
Imbalance (error)			$ 0

FARM NO. 46007 JANUARY 25, 1996

CONDENSED BALANCE SHEET INCLUDING DEFERRED TAXES
December 31, 1995

ASSETS		LIABILITIES & NET WORTH	
		Current debts & payables	$ 130814
		Current deferred taxes	28738
Total Current Assets	$ 141675	Total Current Liabilities	$ 159552
		Intermediate debts & leases	$ 266386
		Intermediate deferred taxes	91269
Total Inter. Assets	$ 440908	Total Inter. Liabilities	$ 357655
		Long term debts & leases	$ 222254
		Long term deferred taxes	43676
Total Long Term Assets	$ 444505	Total Long Term Liab.	$ 265930
TOTAL FARM ASSETS	$1027089	TOTAL FARM LIABILITIES	$ 783136
		Farm Net Worth	$ 243953
		Percent Equity (Farm)	24%
		Nonfarm debts	$ 5000
		Nonfarm deferred taxes	5558
Total Nonfarm Assets	$ 57560	Total Nonfarm Liabilities	$ 10558
TOTAL ASSETS	$1084649	TOTAL LIABILITIES	$ 793693
		Total Net Worth	$ 290955
		Percent Equity (Total)	27%

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 other than average exemptions and deductions 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 49 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.>.95) 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:↵
(Or DIR C:↵ 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:\

46007     95           8,163 01-22-96  10:50a
46007     930            270 01-17-96   8:24a
46007     940            751 01-17-96   8:24a
        3 file(s)          9,184 bytes
                         212,992 bytes free
```

The 1995 farm record files entered in 1996 will have file extensions of .95. The sample farm is file 46007.95.

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

COPY B:*.* A:↵
(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 PCXXXX[12] - 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 FØ PCXXXX - Caused by program attempting to locate and not finding the program file Calc.ØØØ. 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 Ø1 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 FØ 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:

Message	Interpretation	Solution
Program won't recognize a farm record file	File extension (year, example .95) 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 comand
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 46007 to a new diskette, remove the DFBS program diskette from drive A and insert a blank, formatted diskette. Then type:

COPY B:46007.* A:↵

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 4). 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 4). 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 operator #2 months > 0."

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. "Operator #N months > 16." (Where N is operator 1 through 6.)

It is possible to have operator months greater than 12 when converting to months of labor based on 230 hours/month (Screen 6). If an operator enters more than 16 months per year they would be working more than 72 hours per week. Check for accuracy.

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 ≤ 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 10). 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).

8 & 9. "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 a decrease in that inventory item and, therefore, would be added when calculating the accrual expense.

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 information 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. "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 are 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. 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 1995 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 feed 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 quality 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 (six 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 1995 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:

Real Estate Sold:	*Total sale price*	*$25,000*	
	Sale expenses	*- 1,000*	
	Net sale price		*- $24,000*
	Note/mortgage held by seller	*- 15,000*	
	Net cash amt. rec'd. in 1995	*= 9,000*	

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 1995" would then equal $24,000.

The calculated value, "net cash amount received in 1995", 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 15 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, bST Usage, 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. Check "other" if a portion of the herd was

milked three or more times a day, or the total herd was milked three or more times a day for part of the year, or if the total herd was milked more than three times a day for the entire year.

If bST was used in 1995, check the appropriate "% of herd" category. For example, if a dairy farmer started supplementing his cows on November 1, and supplemented 100 percent of the eligible cows in both November and December, he would select option 1, less than or equal to 25 percent. The calculation would be 100% multiplied by 2 months of usage divided by 12 possible months for supplementation in 1995 = 16.7 percent. Eligible cows are defined as those cows that are 64 or more days in milk.

If bST is no longer being used on any of the herd, check "Stopped using in 1995". If bST was never used, check "not used".

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 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 order to calculate more accurate labor efficiency factors, operator months greater than 12 are also possible. Convert average weekly operator hours to months using 4.3 weeks/month and 230 hours/month. For example, Operator #1 works, on average, 60 hours per week, which converts to 13.5 months per year:

$$\frac{60 \text{ hours/week} \times 4.3 \text{ weeks/month}}{230 \text{ hours/month}} \times 12 \text{ months worked} = 13.5 \text{ full-time months}$$

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 perquisities 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:

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

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. Find instructions for allocating hay crop acres to pasture below. The measure of production of the roughages is the total tons of dry matter. The intermediate columns of total production and dry matter coefficient 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, 1995) from the end of year balance (December 31, 1995) 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, 1995" in Worksheet 6 must equal the value in Screen 9, page 6 for "Accounts Receivable, December 31, 1995". The total of the column "Balance, January 1, 1995" in the worksheet must equal "Accounts Receivable, January 1, 1995" 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 1995, the interest rate at the beginning of 1996, and the planned payments for 1996. If a cooperator 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 1995 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 1995, use of the "Amount of Debt Refinanced" column will help you arrive at more accurate values for "Amount of New Borrowings" and "Actual 1995 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 1995 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 1996 interest rate and planned payments for 1996. 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 1995 (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 1995 Receipts and Changes in Inventory and Accounts Receivable (page 10)

Record the 1995 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 12/31/95" in Worksheet 7 must equal the value in Screen 11, page 9 for "Accounts Payable, December 31, 1995". The total of the column "Balance 1/1/95" in the worksheet must equal the value in Screen 11 for "Accounts Payable, January 1, 1995". 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 1995 Expenses and Changes in Inventory and Accounts Payable (page 13)

Record the 1995 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 result of cash expenses less changes in inventory or prepaid expenses plus the changes in accounts payable.

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 (end year - beginning 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 1995 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 (end year minus beginning 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. Operator residences should be included in tax basis for "buildings & improvements" as well as for "operator residences" if it was included in the Real Estate Inventory in Screen 5. 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 1995
( )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	$						

[1]Loss 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 MACH. & EQUIPMENT SOLD	$	+	$	= $	

SCREEN 2.

MACHINERY & EQUIPMENT INVENTORY & DEPRECIATION (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	-_____		
1995 Tax Depreciation[2]	-_____		
Total Beginning Inventory After Changes			$ _____
Machinery Appreciation (end less beginning after changes)			$ _____

[2]Exclude 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, 1995 Quant.	$ per Unit	Total Value	December 31, 1995 Quant.	$ per Unit	Total Value
GROWN FEEDS:						
Corn-HMSC or HMEC	_____	$_____	$_____	_____	$_____	$_____
Corn-dry, _____	_____	_____	_____	_____	_____	_____
Oats	_____	_____	_____	_____	_____	_____
Wheat	_____	_____	_____	_____	_____	_____
Dry hay	_____	$_____	$_____	_____	$_____	$_____
Hay crop silage	_____	_____	_____	_____	_____	_____
Corn silage	_____	_____	_____	_____	_____	_____
Other _____	_____	_____	_____	_____	_____	_____
			Total ↓			Total ↓

FEED & SUPPLY INVENTORY							SCREEN 3. Invent. Change[1]
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	.....	.....	_____	.....	.....	_____	_____
Bedding	.....	.....	_____	.....	.....	_____	_____
Milking supplies	.....	.....	_____	.....	.....	_____	_____
Other lvstk. supplies	.....	.....	_____	.....	.....	_____	_____
Crops: Fertilizer	.....	.....	_____	.....	.....	_____	_____
Seeds	.....	.....	_____	.....	.....	_____	_____
Pesticides/Other	.....	.....	_____	.....	.....	_____	_____
Land/Bldg./Fence:	.....	.....	_____	.....	.....	_____	_____
Other:	.....	.....	_____	.....	.....	_____	_____
Total Feed & Supplies			$_____			$_____	

[1]All inventory changes are calculated: end year minus beginning year. Carry grown feed over to Screen 12; and purchased feed and supplies over to Screen 13.

WORKSHEET 4. LAND & BUILDING PURCHASES & SALES

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

[2]e.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, 1995 Inventory			December 31, 1995 Inventory Using: 1/1/95 Prices			12/31/95 Prices	
	No.	$ per Head	Total Value	No.	$ per Head	Total Value	$ per Head	Total Value
Dairy Cows:	___	$ ___	$_____	_____	$_____	$_____	$_____	$_____
.....	___	___	_____	_____	_____	_____	_____	_____
Total Dairy Cows	___		$_____	___		$_____		$_____
Heifers:								
Bred Heifers	___	$ ___	$_____	_____	$_____	$_____	$_____	$_____
Open (6 mo. - bred)	___	___	_____	_____	_____	_____	_____	_____
Calves (< 6 mo.)	___	___	_____	_____	_____	_____	_____	_____
Total Heifers	___		$_____	___		$_____		$_____
Bulls & Other Livestock:								
.....	___	$ ___	$_____	_____	$_____	$_____	$_____	$_____
.....	___	___	_____	_____	_____	_____	_____	_____
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 1995 income tax (Include buildings in pre-ACRS, ACRS, MACRS & ADS) -_____

Real Estate Sold: Total sale price $_____
Sale expenses - _____
Net sale price -_____
Note/mortgage held by seller - _____
Net cash amount received in 1995 =_____[2]

Total Beginning Value After Changes $_____

Real Estate Appreciation $_____

[1]Use Worksheet 4, page 2. [2]Calculated 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).

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WORKSHEET 5. CORN GRAIN CONVERSION WORKSHEET

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

[1]Use Table 1 below. [2]Use Table 2 below.

TABLE 1. TOWER SILO CAPACITIES FOR HIGH MOISTURE CORN

Settled Depth	Tons High Moisture Ear Corn[3] Inside Diameter in Feet 14	16	18	20	Tons High Moisture Shelled Corn[4] Sealed Storage 20 Feet Diameter
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	

[3]Based on 33 percent moisture content. [4]Based 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

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

5

Name_____ [Proc. no. _____]

LIVESTOCK & BUSINESS DESCRIPTION

SCREEN 6.

Livestock	Avg. No. For Year	Production Record	Milking System	Primary Business Type
Dairy cows (owned, rented & leased)	_____	___(1)D.H.I.	___(1)Bucket & carry	___(1)Single prop.
Heifers (dairy)	_____	___(2) O.S.	___(2)Dumping station	___(2)Partnership
Bulls	_____	DHI#21_____	___(3)Pipeline	___(3)Corporation
Other: (type).....	[_____]	___(3)Other	___(4)Herringbone par.	
(# head).....	w.u.[1]	___(4)None	___(5)Other parlor	Primary Financial Recordkeeping System
Lbs. milk sold	Milking Frequency	bST Usage % of Herd:	Dairy Housing	___(1)ELFAC II
_____	___(1)2x/day[2]	___(1)<25%	___(1)Stanchion/ Tie-Stall	___(2)Account Book
	___(2)3x/day[3]	___(2)25-75%	___(2)Freestall	___(3)Agrifax Mail-in
Avg. milk plant test ___% B.F.	___(3)Other[4]	___(3)>75%	___(3)Combination	___(4)On-Farm Computer
		___(4)Stopped using in 1995		___(5)Other
		___(5)Not Used		

SCREEN 7.

LABOR INVENTORY	Full-Time Months	Age	Years Educ.	Value of Management & Labor
Operator - 1	_____	___	___	$ _____
- 2	_____	___	___	$ _____
- 3	_____	___	___	$ _____
- 4	_____	___	___	$ _____
- 5	_____	___	___	$ _____
- 6	_____	___	___	$ _____
Family (paid employees)	_____			
Family (unpaid)	_____			
Hired (regular & seasonal)	_____			
Total	_____ ÷ 12 = _____ Worker Equivalent			

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

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)		xxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxxxx
Hay	xxxxxxxxxxxxxxxx	tons		_____
Hay crop silage	xxxxxxxxxxxxxxxx	tons		_____
Corn silage		tons		_____
Other forage harvested		tons		_____
Corn for grain[5]		dry sh. bu.	Total ton DM	_____
Oats		dry bu.		
Wheat		dry bu.		
Other:.....		[ ]w.u.[1]		
Tillable pasture		[_____] Check if Rotational Grazing at least 3 months		
Idle tillable acres		of year, changing paddock at least every 3 days.		
Total tillable acres	_____			

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

Name_____ [Proc. no. _____]

FARM FAMILY FINANCIAL SITUATION

SCREEN 9.

ASSETS

	January 1, 1995[1]	December 31, 1995
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)	$ _____	$ _____

[1]If you participated in the Dairy Farm Business Summary project last year, there is no need to enter the January 1, 1995 values unless a change needs to be made in the values entered last year.

[2]The 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.

[3]Remember 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 7.

[4]Include any expenses that have been paid for in advance of their use. For example, 1996 rent paid in 1995. The total change in prepaid expenses (end year minus beginning year) must be distributed among the proper expense categories in the "Change in Inventory or Prepaid Expense" column in Screen 13, page 13.

[5]Nonfarm 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 1995	Total 1995 expense	SCREEN 10. No. of payments/ full year	SCREEN 10. No. of payments remaining
Cattle:	$ _____	_____	$_____	_____	_____
.....	_____	_____	_____	_____	_____
.....	_____	_____	_____	_____	_____
		Total	$_____[1]		
Equipment:	$ _____	_____	$_____	_____	_____
.....	_____	_____	_____	_____	_____
.....	_____	_____	_____	_____	_____
		Total	$_____[2]		
Structures:	$ _____	_____	$_____	_____	_____
.....	_____	_____	_____	_____	_____
.....	_____	_____	_____	_____	_____
		Total	$_____[3]		

[1]Enter under "Cattle leases" on Screen 13, page 13.
[2]Enter under "Machine hire, rent & lease" on Screen 13, page 13.
[3]Enter under "Real Estate rent/lease" on Screen 13, page 13.

WORKSHEET 6. CHANGES IN OPERATING ACCOUNTS RECEIVABLE

Account Number or Description	Balance Dec. 31, 1995	-	Balance Jan. 1, 1995	=	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 mach. work	_____
						Gas tax refunds	_____
TOTAL	$_____	-	$_____	=	$_____	Other: _____	_____
Must agree with:	(Screen 9)		(Screen 9)		(Screen 12)	====equals====>	$_____

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 1996 check minus January 1995 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 "Change in Accounts Receivable" column 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 Jan.1, 1995 ($)	Amount Dec. 31, 1995 ($)	Amount of New Borrowings ($)	Amt. of Debt Refinanced[2] ($)	Actual 1995 Payments Principal ($)	Actual 1995 Payments Interest ($)	Beg. 1996 Int. Rate (%)	Planned 1996 Amt. of Payments ($)	Planned 1996 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	_____	_____	___	_____	_____

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[1]Farm 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.

[2]Enter 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 Jan.1, 1995 ($)	Amount Dec. 31, 1995 ($)	Amount of New Borrowings ($)	Amt. of Debt Refinanced[2] ($)	Actual 1995 Payments Principal ($)	Actual 1995 Payments Interest ($)	Beg. 1996 Int. Rate (%)	Planned 1996 Amt. of Payments ($)	Planned 1996 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)									
_____	_____	_____		.....		_____			
_____	_____	_____		.....		_____			
Accounts Payable[3]	_____	_____				_____			
Advanced Gov't Rec.[4]	_____	_____							
Total Farm Liab/Pymts	$_____	$_____	$.....	$.....0.....	$_____	$_____			
Nonfarm Liab/Pymts[5]	$_____	$_____	$x _____x		$_____	$_____			
TOTAL LIAB/PYMTS (not including leases)	$_____	$_____	$.....		$_____	$_____			

net reduction planned in:
operating debt: $_____

accounts payable: _____

Total Nonfarm Pymts. $_____

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[3]Accounts 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.

[4]Include government payments received in 1995 that are for participation in the 1996 program, as the end year balance. Enter government payments received in 1994 for participation in the 1995 program as the beginning year balance.

[5]Include debt incurred for all nonfarm assets purchased.

Name_____ [Proc. no. _____]

SUMMARY OF 1995 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)] $ _____

[1]End of year (at beginning prices for cattle) minus beginning of year. [2]Use Worksheet 6 on page 7 to calculate. [3]Change 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 nondairy livestock feed.

3. Include all machinery rent paid and any lease payments on machinery. Include machinery parts and repair expenses as well as insurance and registration for trucks used solely for farm purposes under machinery repairs and farm vehicle expense. Also include expenses for farm share of other vehicles.

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, and bST expense.

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 utility expenses (e.g. electricity, telephone, heating fuel).

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 12/31/95	-	Balance 1/1/95	=	Change in Acct. Pay.
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
_____ :	$_____	-	$_____	=	$_____
TOTAL:	$_____	-	$_____	=	$_____
Must agree with:	(Scr. 11)		(Scr. 11)		(Scr. 13)

Allocation (enter totals on page 13)	
Expense Category	Change in Acct. Pay.
Hired Labor	$ _____
Feed	
Dairy grain & conc.	_____
Dairy roughage	_____
Nondairy feed	_____
Machinery	
Mach. hire & lease	_____
Mach. repairs & vehicle exp.	_____
Fuel, oil & grease	_____
Livestock	
Replacement livestock	_____
Breeding	_____
Veterinary & medicine	_____
Milk marketing	_____
Bedding	_____
Milking supplies	_____
Cattle lease	_____
Custom boarding	_____
Other livestock expense	_____
Crops	
Fertilizer & lime	_____
Seeds & plants	_____
Spray, other crop exp.	_____
Real Estate	
Land, bldg., fence repair	_____
Taxes	_____
Rent & lease	_____
Other	
Insurance	_____
Utilities (farm share)	_____
Interest	_____
Miscellaneous	_____
Expansion Livestock	_____
=======equals=======>	$ _____

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.

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Name_____ [Proc. no. _____]

SUMMARY OF 1995 EXPENSES & CHANGES IN INVENTORY & ACCOUNTS PAYABLE

See page 11 for instructions. SCREEN 13.

Farm Expenses	Cash Amount Paid	-	Change in Inventory or Prepaid Expenses[1]	+	Change in Acct. Pay.[2]	=	Accrual Expenses
Hired Labor	$ _____		$ x _____ x		$_____		$ _____
Feed (see Guideline 2 on page 11)							
Dairy grain & concentrate	_____		_____		_____		_____
Dairy roughage	_____		_____		_____		_____
Nondairy feed	_____		_____		_____		_____
Machinery							
Machine hire, rent & lease	_____		x _____ x		_____		_____
Machinery repairs & farm vehicle exp.	_____		_____		_____		_____
Fuel, oil & grease	_____		_____		_____		_____
Livestock							
Replacement livestock	_____		x _____ x		_____		_____
Breeding	_____		_____		_____		_____
Veterinary & medicine	_____		_____		_____		_____
Milk marketing	_____		x _____ x		_____		_____
Bedding	_____		_____		_____		_____
Milking supplies	_____		_____		_____		_____
Cattle lease/rent	_____		x _____ x		_____		_____
Custom boarding	_____		x _____ x		_____		_____
Other livestock expense	_____		_____		_____		_____
Crops							
Fertilizer & lime	_____		_____[3]		_____		_____
Seeds & plants	_____		_____[3]		_____		_____
Spray, other crop expense	_____		_____[3]		_____		_____
Real Estate							
Landing, building, fence repair	_____		_____		_____		_____
Taxes	_____		x _____ x		_____		_____
Rent & lease	_____		x _____ x		_____		_____
Other							
Insurance	_____		x _____ x		_____		_____
Utilities (farm share)	_____		x _____ x		_____		_____
Interest	_____		x _____ x		_____		_____
Miscellaneous	_____		_____		_____		_____
TOTAL OPERATING	$ _____		$ _____		$_____		$ _____
Expansion livestock	$ _____		x _____ x		$_____		$ _____
Purchase of other stock & certificates (exclude Farm Credit stock)							$ _____
Nonfarm Cash Expenses							
Personal withdrawals & family expenditures[4]							$ _____

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

[2]Use Worksheet 7 on page 12 to calculate.

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

[4]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 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_____ [Proc. no. _____]

OPTIONAL INPUT

BREAKDOWN OF 1995 ACCRUAL CROP EXPENSES BY CROP — SCREEN 14.

Crop	Accrual Fertilizer & 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 (underpreciated balance) of: (as of December 31, 1995)

Purchased livestock (included in livestock inventory, Screen 4) $ _____

Machinery & equipment (included in machinery inventory, Screen 2) $ _____

Building & improvements (included in Real Estate 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 & building 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:

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	$ _____	$ _____	$ _____	$ _____	$ _____

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

[2]1=single, 2=married filing jointly, 3=married filing separately, 4=head of household.

APPENDIX C

PROCEDURES FOR CALCULATING COST OF PRODUCING MILK

PROCEDURES FOR CALCULATING COST OF PRODUCING MILK -
1995 DAIRY FARM BUSINESS SUMMARY
FOR HENRY HOLSTEIN

		Example[1]
Total Accrual Operating Expenses	$ 442,975	
Plus: Expansion Livestock Expense	+ 0	
Accrual Operating Expenses Including Expansion Livestock		$ 442,975
Total Accrual Receipts	$ 493,075	
Less: Accrual Milk Sales	- 435,349	
Accrual Receipts Less Milk Sales		- 57,726
Operating Cost of Producing Milk[2]		$ 385,249
Total Accrual Expenses		$ 486,975
Accrual Receipts Less Milk Sales		- 57,726
Purchased Inputs Cost of Producing Milk[3]		$ 429,249
Total Accrual Expenses		$ 486,975
Family Labor Unpaid		+ 17,400
Value of Operator's Labor & Management		+ 55,000
Real Interest on Equity Capital		+ 19,883
Accrual Receipts Less Milk Sales		- 57,726
Total Cost of Producing Milk[4]		$ 521,532

[1] Same 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 l and press return. The contents of the file will now be displayed:

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

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 = 1Ø
        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.

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