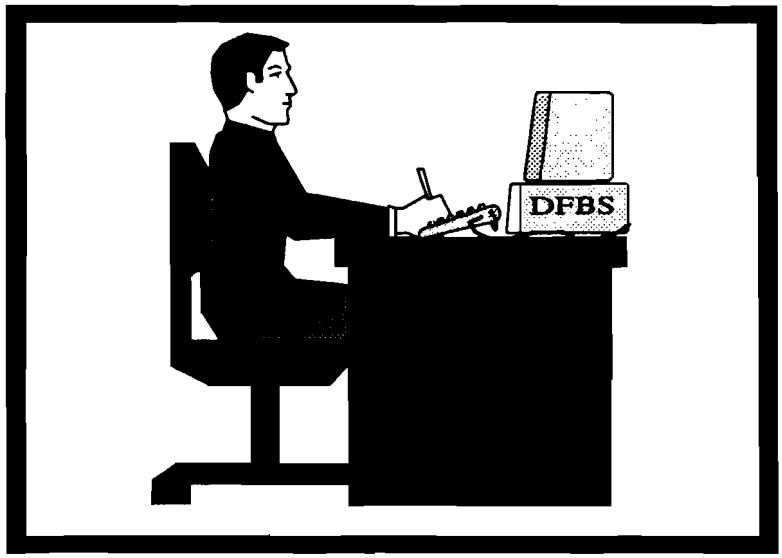
January 1993 A.E. Ext. 93-2

MICRO DFBS



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

Micro DFBS V 2.7

Linda D. Putnam
Wayne A. Knoblauch
Stuart F. Smith

Department of Agricultural Economics
College of Agriculture and Life Sciences
Cornell University, Ithaca, New York 14853

It is the Policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The University is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.

TABLE OF CONTENTS

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

HARDWARE REQUIREMENTS

Version 2.7 of the Micro DFBS program will run on IBM and IBM-compatible computers with a minimum of 256K of random-access memory (RAM). The DOS 2.0 or higher operating system is needed. Either two floppy disk drives or one floppy and one hard disk are needed.

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

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

VERSION 2.7 REVISIONS

Revisions made for Micro DFBS Version 2.7 include the following:

1) The constant used for the value of unpaid family labor and value of operator's labor is $1,350 per month. This is based on the wage rate for all hired farm workers reported by the New York Agricultural Statistics Service.

2) The discount rates used in calculation of lease assets and liabilities are 10 percent at the beginning of year, and 8.5 percent at the end of the year. These are the typical interest rates paid by farm borrowers during the year.

3) Operating cost of producing milk has been added as a cost control measure in the Progress of the Farm Business table on page 1 of the output.

4) An asset turnover ratio replaces capital turnover (in years) on pages 1 and 11. The asset turnover is calculated by dividing accrual receipts (including appreciation) by average assets.

5) Net sales of real estate (page 5 of output) are calculated by subtracting sale expenses from the total sale price. The beginning inventory value of real estate sold is no longer collected. Therefore, there is now only one real estate appreciation value calculated.

6) A Statement of Owner Equity (Reconciliation) has been added on page 6 of the output.

7) The Annual Cash Flow Statement (page 7) has been re-organized to show net cash provided by operating activities, investing activities, financing activities, and from reserves.

8) A diagnostic has been added that prints the amount of cash inflow, cash outflow and the imbalance.

9) An option to print the Annual Cash Flow Statement using the previous year's format has been added.

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:

46002.92 is the current year's data file,
46002.910 is the 1991 output file, and
46002.900 is the 1990 output file.

The 1991 and 1990 output data files are required for use by the current year data file (<farm no.>.92) in order to print a "Progress of the Farm Business" table on page 1 of the output. The 1992 data file contains data from the 1991 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 1-1-93, Micro DFBS will use the <farm no.>.92 data file and the printout will show:

1992 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 1-1-93 ↵

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

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

copy a:46002.* b: ↵

Skip to C on page 5.

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

If you have previously loaded DOS onto the hard 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

---

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

[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.

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

date 1-1-93 ↵

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:46002.* ↵

The C> prompt should reappear.

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

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

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

   COPY A:*.* ↵

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

---

[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>.

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 ↵

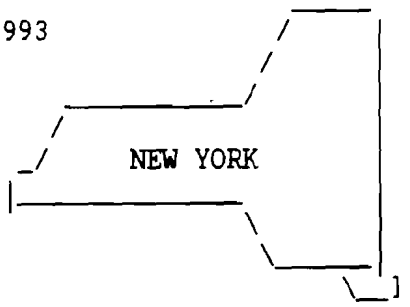
You should see the main menu.

MAIN MENU

DATE: 1/15/1993

CORNELL COOPERATIVE EXTENSION

Prepared by
DEPARTMENT OF
AGRICULTURAL ECONOMICS
CORNELL UNIVERSITY



Dairy Farm Business Summary Version 2.7 (C) 1992

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

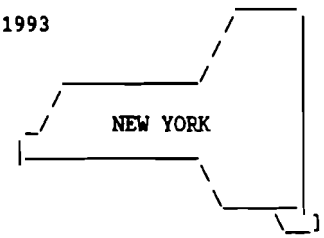
[4]See Appendix A for guidelines to completing the Dairy Farm Business Summary check-in form.

MAIN MENU WITH FARM NUMBER PROMPT

DATE: 1/15/1993

CORNELL COOPERATIVE EXTENSION

Prepared by
DEPARTMENT OF
AGRICULTURAL ECONOMICS
CORNELL UNIVERSITY



Dairy Farm Business Summary Version 2.7 (C) 1992

[ ] Create/Update/Display Record
[ ] Verify Record
[ ] Delete Record
[ ] Calculate and Print Farm Summary
[ ] Run Install Program
[ ] 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 46002 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 Darla Dairyperson *County* Suffolk
Farm Name
Address RD#1 Box 22
Farmingville NY 19901
Phone no. 607-255-9429

Proc. number 46002 Year 1992
(✓)complete, (✓)entered, ( )ready
Update Screens:

Type the farm number:

46002 ↵

Micro DFBS will find the file 46002.92. This file already contains data from the previous year, such as beginning of year inventory values and beginning of year assets and liabilities. The program continues on to Screen 1.

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

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

Enter y ↵

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

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

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

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

Screen #1

FARM INFORMATION

```
                                                        Verified [N]
Farm No. ..... 46002
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:

Do-right Dairy ↵ (return/enter)

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

1) ↵ (return/enter). Keep pressing return until the cursor goes off the screen and you get the message below.

2) ↓ key. Keep pressing the down arrow key until you get the message below.

3) [Esc] key. The escape key only needs to be pressed once to get the message below. Note: Use this key with caution. On screens with totals or computed values use ↵ or ↓ to move through the entire screen so values are recalculated.

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

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

1) [PgDn] or [RETURN] will take you to the next screen.

2) [PgUp] will take you to the previous screen.

3) [Esc] will exit the screen and take you back to the main menu.

4) # of Screen, i.e., enter the number of any screen to move to that screen. It is not necessary to ↵ (Return/Enter) after entering the Screen #.

Screen #1

FARM INFORMATION

Verified [N]

Farm No. 46002
Operator's Name . Darla Dairyman
Farm Name ..... Do-right Dairy
Address ..... RD#1, Box 22
City ..... Farmingville
State ..... NY
Zip 19901-
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.46002 Screen #2

MACHINERY AND EQUIPMENT INVENTORY AND DEPRECIATION

Machinery & Equipment Inventory Beginning		$ 185000	End $	0
Machinery & Equipment Purchased	+ $	0		
Noncash Machinery Transfer to Farm	+ $	0		
Machinery & Equipment Sold	- $	0		
1992 Tax Depreciation	- $	0		
Total Beginning Inventory After Changes				$ 185000
Machinery Appreciation (end less beginning after changes)				$-185000

Part of page 1 of Darla Dairyman'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	$ 185,000	*End of Year Inventory*	$ 195,000
Machinery & Equipment Purchased	+ 31,300		
Noncash Mach. Transfer to Farm (e.g., gifts/inheritances)	+ 10,500		
Machinery & Equipment Sold	- 6,250		
1992 Tax Depreciation[2]	- 27,300		
Total Beginning Inventory After Changes			$ 193,250
Machinery Appreciation (end less beginning after changes)			$ 1,750

[2]Exclude buildings and cattle from ACRS depreciation.

Farm No.46002 Screen #2

MACHINERY AND EQUIPMENT INVENTORY AND DEPRECIATION

Machinery & Equipment Inventory Beginning	$ 185000	End $ 195000
Machinery & Equipment Purchased	+ $ 31300	
Noncash Machinery Transfer to Farm	+ $ 10500	
Machinery & Equipment Sold	- $ 6250	
1992 Tax Depreciation	- $ 27300	
Total Beginning Inventory After Changes		$ 193250
Machinery Appreciation (end less beginning after changes)		$ 1750

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 Do-right Dairy into Screens 3 through 14 using the data on the following pages. After Screen 14, you should be back to the main menu.

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

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

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

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

FEED & SUPPLY INVENTORY			↓			↓	SCREEN 3. Inventory Change[1]
Total Grown Feeds			$50,084			$73,843	$23,759
PURCHASED FEEDS: (use p.12 definitions)							
Dairy grain & conc	20 T.	x 190/T	-$ 3,600	 x	.....	-$ 7,400	-3,800
Dairy roughage	.....	.....	_____	.....	.....	_____	.....
Nondairy feed	.....	.....	_____	.....	.....	_____	.....
SUPPLIES:							
Machine: Parts	.....	x	-$ 250	 x	.....	-$ 270	$ -20
Fuel, oil, grease	100 gal	1.15/gal.	115	.....	.....	87	28
Livestock: Semen	.....	.....	800	.....	.....	500	300
Vet. supplies	.....	.....	100	.....	.....	75	25
Other supplies	.....	.....	_____	.....	.....	_____	.....
Crops: Fertilizer	.....	.....	4000	.....	.....	4500	-500
Seeds	.....	.....	700	.....	.....	600	100
Pesticides/Other	.....	.....	_____	.....	.....	_____	.....
Land/Bldg./Fence:	.....	.....	200	.....	.....	0	200
Other:	.....	.....	_____	.....	.....	_____	.....
Total Feed & Supplies			$59849			$87,275	

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

Farm No. 46002 Screen #3

FEED & SUPPLY INVENTORY

Feed & Supply Inventory	Beg-Year	End-Year	Inventory Change
Total Grown Feeds	$ 50084	$ 73843	$ 23759
Purchased Feeds:			
Dairy Grain & Conc.	$ 3600	$ 7400	$ -3800
Dairy Roughage	$ 0	$ 0	$ 0
Nondairy Feed	$ 0	$ 0	$ 0
Supplies:			
Machine: Parts	$ 250	$ 270	$ -20
Fuel, Oil, Grease	$ 115	$ 87	$ 28
Livestock: Semen	$ 800	$ 500	$ 300
Vet. Supplies	$ 100	$ 75	$ 25
Other Supplies	$ 0	$ 0	$ 0
Crops: Fertilizer	$ 4000	$ 4500	$ -500
Seeds	$ 700	$ 600	$ 100
Pesticides and Other	$ 0	$ 0	$ 0
Land/Bldg./Fence:	$ 200	$ 0	$ 200
Other:	$ 0	$ 0	$ 0
Total Feed & Supplies	$ 59849	$ 87275	

[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 0

	Jan. 1, 1992 Inventory			December 31, 1992 Inventory Using: 1/1/92 Prices			12/31/92 Prices	
	No.	$ per Head	Total Value	No.	$ per Head	Total Value	$ per Head	Total Value
Dairy Cows:.....	98	$920	$90,160	127	$920	$116,840	$1020	$129,540
.....								
Total Dairy Cows	98		$90,160	127		$116,840		$129,540
Heifers:								
Bred Heifers	20	$900	$18,000	25	$900	$22,500	$950	$23,750
Open (6 mo. - bred)	25	700	17,500	30	700	21,000	750	22,500
Calves (< 6 mo.)	30	400	12,000	30	400	12,000	475	14,250
Total Heifers	75		$47,500	85		$55,500		$60,500
Bulls & Other Lvstk.:								
Dairy Steers		$	$	12	$800	$9,600	$850	$10,200
.....								
Total Bulls & Other Livestock	....		$.....	12		$9,600		$10,200
Total Livestock	173		$137,660	224		$181,940		$200,240

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

Farm No.46002 LIVESTOCK INVENTORY Screen #4

Leased Dairy Cows End Yr.: 0	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:	98	$ 920	$ 90160	127	$ 920	$ 116840	$ 1020	$ 129540
	0	0	0	0	0	0	0	0
Total Dairy Cows	98		90160	127		116840		129540
Heifers: Bred	20	900	18000	25	900	22500	950	23750
Open	25	700	17500	30	700	21000	750	22500
Calves	30	400	12000	30	400	12000	475	14250
Total Heifers	75		47500	85		55500		60500
Bulls/Other Lvstk	0	0	0	12	800	9600	850	10200
	0	0	0	0	0	0	0	0
Total Bulls & Other Livestock	0		0	12		9600		10200
TOTAL LIVESTOCK	173		137660	224		181940		200240

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 $270,000 End $325,000

New Real Estate:

Purchased:[1] $ 0 (land) + $ 7,500 (bldgs./land imp.) - $ 2,200 (lost capital) = +$ 5,300 (value added)

Noncash Real Estate Transfer to Farm (e.g. gifts/inherit.) +80,000

Depreciation: from 1992 income tax (Include bldgs. in pre-ACRS, ACRS, MACRS & ADS) - 8,320

Real Estate Sold:

Total sale price	$32,000	
Sale expenses	-2,500	
Net sale price		-29,500
Note/mortgage held by seller	-20,000	
Net cash amt. rec'd. in 1992	-9,500[2]	

Total Beginning Value After Changes $317,480

Real Estate Appreciation $7,520

[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 11).

Farm No.46002 Screen #5

REAL ESTATE INVENTORY

Land and Building Market Value	Beginning $ 270000	End $ 325000	
New Real Estate:			
Purchased: 0 (land) + 7500 (bldgs./land imp.) - 2200 (lost cap.)		=+ $ 5300 (value added)	
Noncash Real Estate Transfer to Farm		+ $ 80000	
Depreciation: From 1992 Income Tax		- $ 8320	
Real estate sold:			
Total sale price	$ 32000		
Sale expenses	- $ 2500		
Net sale price		- $ 29500	
Note/mort. held by seller	- $ 20000		
Net cash amt. rec'd	= $ 9500		
Total Beginning Value After Changes			$ 317480
Real Estate Appreciation:			$ 7520

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

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

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

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

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

LIVESTOCK & BUSINESS DESCRIPTION — SCREEN 6.

Livestock	*Avg. No. For Year*	*Production Record*	*Milking System*	*Primary Business Type*
Dairy cows (owned, rented & leased)	118	X (1) D.H.I.	__ (1) Bucket & carry	__ (1) Single prop.
Heifers (dairy)	80	__ (2) O.S.	__ (2) Dumping station	X (2) Partnership
Bulls		DHI# 21 46 01 24	__ (3) Pipeline	__ (3) Corporation
Other: (type) Dairy Steers	[12]	__ (3) Other	X (4) Herringbone par.	
(# head) ....6....	w.u.[1]	__ (4) None	__ (5) Other parlor	

	Milking Frequency	*Dairy Housing*	*Primary Financial Recordkeeping System*
Lbs. milk sold 2,150,868	X (1) 2x/day[2]	__ (1) Stanchion/ Tie-Stall	__ (1) ELFAC II
	__ (2) 3x/day[3]	X (2) Freestall	__ (2) Account Book
Avg. milk plant test 3.8 % B.F.	__ (3) Other[4]	__ (3) Combination	__ (3) Agrifax Mail-in
			X (4) On-Farm Computer
			__ (5) Other

Farm No.46002 — Screen #6

LIVESTOCK and BUSINESS DESCRIPTION

Livestock	Average No. For Year	Production Record	Milking System	Primary Business Type
Dairy Cows	118	1 D.H.I	4 HERRINGBONE PAR	2 PARTNERSHIP
Heifers(dairy)	80			
Bulls	0	D.H.I # 21460124		
Other:	12 w.u.			

Milk Production		Milking Frequency	Dairy Housing	Financial Recordkeeping System
milk sold (lb)	2150868	1 2X/DAY	2 FREESTALL	4 ON FARM COMPUTER
Average Milk Plant Test 3.80% 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. 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	12	42	15	$20,000
- 2	12	31	15	$20,000
- 3				$
- 4				$
- 5				$
- 6				$
Family (paid employees)	9			
Family (unpaid)	9			
Hired (regular & seasonal)				
Total	42 + 12 = 3.50 *Worker Equivalent*			

LAND INVENTORY	*Acres Owned*	*Acres Rented*	*All Acres*
Tillable land	300	150	450
Pasture (nontillable)	10	10	20
Woods & other nontillable	65	5	70
Total	375	165	540

Farm No.46002 Screen #7

LABOR and LAND INVENTORY

LABOR INVENTORY	Full-Time Months	Age	Years Educ.	Value of Mgmt & labor
Operator - 1	12	42	15	$20000
- 2	12	31	15	$20000
- 3	0	0	0	$ 0
- 4	0	0	0	$ 0
- 5	0	0	0	$ 0
- 6	0	0	0	$ 0
Family (paid emp.)	9			
Family (unpaid emp.)	9			
Hired (reg & seasonal)	0			
Total	42	+ 12 =	3.50 Worker Equivalent	

LAND INVENTORY	Acres Owned	Acres Rented	All Acres
Tillable land	300	150	450
Pasture (nontillable)	10	10	20
Woods & other nontillable	65	5	70
Total	375	165	540

Screen 8 is Tillable Land Use. When entering the data in the dry matter coefficient column, the decimal must be typed. The entry for total production of "Other Crops" is in number of work units (see Table 1 on page 17). The order of data entry is across the rows. Total Tillable Acres and the Total Tons Dry Matter column are the calculated values.

SCREEN 8.

TILLABLE LAND USE	Acres (1st cut only)	Total Production (all cuttings)	Dry Matter Coefficient[6]	Total Tons Dry Matter
Hay Crop (1st cut acres only)	300			
Hay		150 tons	.85	128
Hay crop silage		1300 tons	.40	520
Corn silage	70	1025 tons	.35	359
Other forage harvested	10	40 tons	.40	16
Corn for grain[5]	70	6500 dry sh. bu.	Tot. tn DM	1023
Oats		dry bu.		
Wheat		dry bu.		
Other:.....		[ ]w.u.[1]		
Tillable pasture				
Idle tillable acres				
Total tillable acres	450			

[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. [5]Convert to dry shelled equivalent (see tables, opposite page). [6]Enter as decimal, e.g., 40% is entered as .4.

Farm No.46002 Screen #8

TILLABLE LAND USE

	Acres (1st cut)	Total Production (all cuttings)		Dry Matter Coefficient	Total Tons Dry Matter
Hay Crop	300				
Hay		150	tons	0.85	128
Hay Crop Silage		1300	tons	0.40	520
Corn Silage	70	1025	tons	0.35	359
Other Forage	10	40	tons	0.40	16
Corn for Grain	70	6500	bu.	Total Tons D.M.:	1023
Oats	0	0	bu.		
Wheat	0	0	bu.		
Other	0	0	w.u.		
Tillable Pasture	0				
Idle Till. Acres	0				
Total Till. Acres	450				

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

FARM FAMILY FINANCIAL SITUATION

SCREEN 9.

ASSETS

	January 1, 1992[1]	*December 31, 1992*
Total Farm Inventory[2]	$ 652,509	$ 807,515
Other Farm Assets:		
Farm cash, checking, & savings	20,000	5,000
Accounts receivable[3]	20,575	20,725
Farm Credit stock	6,950	7,250
Other stock & certificates	3,000	3,200
Prepaid expenses[4]	x 200 x	x 800 x
Total Farm Assets	$ 703,234	$ 844,490
Nonfarm Assets:[5]		
Personal cash, checking & savings	2,000	2,100
Cash value life insurance	3,000	3,100
Nonfarm real estate		
Personal share auto	2,000	1,500
Stock & bonds		
Household furnishings	5,000	5,000
Other (include mortgages & notes)	8,000	27,700
Total Nonfarm Assets	$ 20,000	$ 39,400
TOTAL ASSETS (not including leases)	$ 723,234	$ 883,890

Farm No.46002 Screen #9

FARM FAMILY FINANCIAL SITUATION--ASSETS

	January 1, 1992	December 31, 1992
Total Farm Inventory	$ 652509	$ 807515
Other Assets:		
Farm Cash, Check/Saving	20000	5000
Accounts Receivable	20575	20725
Farm Credit Stock	6950	7250
Other Stock and Cert.	3000	3200
Prepaid Expenses	200	800
Total Farm Assets:	$ 703234	$ 844490
Nonfarm Assets:		
Personal Cash, Check/Saving	$ 2000	$ 2100
Cash Value Life Insurance	3000	3100
Nonfarm Real Estate	0	0
Personal Share Auto	2000	1500
Stocks & Bonds	0	0
Household Furnishings	5000	5000
Other	8000	27700
Total Nonfarm Assets	$ 20000	$ 39400
TOTAL ASSETS	$ 723234	$ 883890

Screen 10, Liabilities and Planned Debt Payment Schedule, is divided into two screens (Screen 10 and Screen 10a). Screen 10 contains the Long Term and Intermediate Liabilities and Debt Payments. Screen 10a contains the Short Term, Operating Debt, Accounts Payable, Advanced Government Receipts, and Nonfarm Liabilities and Debt Payments. To move from Screen 10 to Screen 10a, press the [PgDn] key. To get back to Screen 10 from Screen 10a, press the [PgUp] key.

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 (continued) SCREEN 10.

LIABILITIES[1]					DEBT PAYMENTS			
Creditor (the first 12 characters will be used as input.)	Amount Jan. 1, 1992 ($)	Amount Dec. 31, 1992 ($)	Amount of New Borrowings ($)	Amt. of Debt Refinanced[2] ($)	Actual 1992 Pymts Principal ($)	Actual 1992 Pymts Interest ($)	Planned 1993 Amt. of Pymts. ($)	Planned 1993 Pymts. Per Year (no.)
Long Term Debt (≥10yrs.)								
1st Bank Mortgage	73,000	70,000	x x	.....	3,000	5,916	743	12
Farm Credit 1	60,000	58,000	x x	.....	2,000	4,540	545	12
			x x	.....				
			x x	.....				
Intermediate Term Debt (>1yr., <10yrs.)								
First Bank	31,000	43,000	x 15,000 x	.....	3,000	4,020	585	12
Farm Credit 2	30,000	33,000	x 5,000 x	.....	2,000	6,100	675	12
John Deere	42,000	39,000	x x	.....	3,000	3,828	569	12
			x x	.....				
			x x	.....				
			x x	.....				
			x x	.....				
			x x	.....				
Farm Credit Stock	$6,950	$7,250						
Short Term Debt - 1 year or less (borrowed to purchase capital items)								
			x x	.....				
			x x	.....				
Operating Debt (borrowed to buy items entered as expenses in Screen 13)							*net reduction planned in: oper. debt:*	
Farm Credit 3	16,000	15,000		.....		3,000		4,000
				.....			*accts. pay.:*	1,000
Accounts Payable[3]	9,000	26,200				3,000		
Advanced Gov't Rec.[4]	0	2,000						
Total Farm Liab/Pymts	$267,950	$293,450	$.....	$ 0	$13,000	$30,404	*Total Nonfarm Pymts.*	$ 0
Nonfarm Liab/Pymts[5]	$ 0	$ 0	$x x		$ 0	$ 0		
TOTAL LIAB/PYMTS (not including leases)	$267,950	$293,450	$.....		$13,000	$30,404		

[1]Farm Credit liabilities at beg. 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 payment as a negative amount; loan as a positive amount. Do not include in new borrowings or with principal payments.

[3]Accounts not paid (not money borrowed) for noncapital items/services. Accounts payable at beginning and end of year must agree with the totals in Worksheet 7, page 10.

[4]Include government payments received in 1992 that are for participation in the 1993 program, as the end year balance. Enter government payments received in 1991 for participation in the 1992 program as the beginning year balance.

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

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. However, if it is more convenient to enter the total annual payment amount in the "Amount of Payments" column, simply type a "1" in the "Payments Per Year" column. If the payments are not monthly or annual, enter the appropriate number of payments.

The "Farm Credit Stock" values at the top of Screen 10a are displayed. These values were entered as assets in Screen 9. The order of data entry is across the rows. The calculated values are the rows for Total Farm Liabilities/Payments and Total Liabilities/Payments. If there were previous year's data, the creditor description and beginning year liability columns will be displayed.

Farm No.46002 LIABILITIES & PLANNED DEBT PAYMENT SCHEDULE Screen #10

Liabilities:				Debt Payments:				
	Amount		Amount of New Borrow-ings	Actual		Planned 1993		
	Jan. 1, 1992	Dec. 31, 1992		Principal	Int.		Amt. of Pymts	Pymts. / Yr
*Long Term:								
1st Bank Mtg	$ 73000	$ 70000	$ 0	$ 3000	$ 5916		$ 743	12
Farm Credit1	$ 60000	$ 58000	$ 0	$ 2000	$ 4540		$ 545	12
	$ 0	$ 0	$ 0	$ 0	$ 0		$ 0	12
	$ 0	$ 0	$ 0	$ 0	$ 0		$ 0	12
*Intermediate:								
First Bank	$ 31000	$ 43000	$ 15000	$ 3000	$ 4020		$ 585	12
Farm Credit2	$ 30000	$ 33000	$ 5000	$ 2000	$ 6100		$ 675	12
John Deere	$ 42000	$ 39000	$ 0	$ 3000	$ 3828		$ 569	12
	$ 0	$ 0	$ 0	$ 0	$ 0		$ 0	12
	$ 0	$ 0	$ 0	$ 0	$ 0		$ 0	12
	$ 0	$ 0	$ 0	$ 0	$ 0		$ 0	12
	$ 0	$ 0	$ 0	$ 0	$ 0		$ 0	12

PRESS [PgDn] OR [ESC] TO GO TO SCREEN 10A

<<<<<(SCREEN 10 CONTINUED)>>>>> (PRESS [PgUp] TO GO TO SCREEN 10)

Liabilities:				Debt Payments:				
	Amount		Amount of new Loans	Actual		Planned 1993		
	Jan. 1, 1992	Dec. 31, 1992		Principal	Int.		Amt. Of Pymts.	Pymts. / Yr.
FCB Stock	$ 6950	$ 7250						
*Short Term:								
	$ 0	$ 0	$ 0	$ 0	$ 0		$ 0	12
	$ 0	$ 0	$ 0	$ 0	$ 0		$ 0	12
						Net Reduction		
*Operating Debt:						.Planned:		
Farm Credit3	$ 16000	$ 15000			$ 3000	Oper. Debt	$	4000
	$ 0	$ 0			$ 0		$	0
*Accts. Pay.:	$ 9000	$ 26200			$ 3000	Accts Pay	$	1000
*Adv Gov Rec.	$ 0	$ 2000						
*Total Farm:	$ 267950	$ 293450		$ 13000	$ 30404			
*Nonfarm Liab	$ 0	$ 0	$ 0	$ 0	$ 0	Total Nonfarm		
						Payments	$	0
TOTAL:	$ 267950	$ 293450		$ 13000	$ 30404			

Financial leases are entered in Screen 11. The columns titled "amount of each payment", "no. of payments in 1992", "no. of payments/full year", and "no. of payments remaining" from the data check-in form are entered on Screen 11. The total 1992 expense column is calculated. The order of data entry is across rows.

Leased item	*Amount of each payment*	*No. of payments in 1992*	*Total 1992 expense*	SCREEN 11. *No. of payments/ full year*	SCREEN 11. *No. of payments remaining*
Cattle:	$_____	_____	$.....	_____	_____
.....	_____	_____	.....	_____	_____
.....	_____	_____	.....	_____	_____
		Total	$..... [1]		
Equipment: tractor	$ 170	12	$ 2040	12	24
.....	_____	_____	.....	_____	_____
.....	_____	_____	.....	_____	_____
		Total	$..... [2]		
Structures:	$_____	_____	$.....	_____	_____
.....	_____	_____	.....	_____	_____
.....	_____	_____	.....	_____	_____
		Total	$..... [3]		

[1]Enter under "Cattle leases" on Screen 13, page 11.
[2]Enter under "Machine hire, rent, & lease" on Screen 13, page 11.
[3]Enter under "Real Estate rent/lease" on Screen 13, page 11.

Farm No.46002 Screen #11

FINANCIAL LEASES

Leased Item	Amount of Each Pymt	No. of Payments in 1992	Total 1992 Expense	No. of Payments/ Full Year	No. of Payments Remaining
Cattle	$ 0	0	$ 0	0	0
	$ 0	0	$ 0	0	0
	$ 0	0	$ 0	0	0
		Total	$ 0		
Equipment	$ 170	12	$ 2040	12	24
	$ 0	0	$ 0	0	0
	$ 0	0	$ 0	0	0
		Total	$ 2040		
Structures	$ 0	0	$ 0	0	0
	$ 0	0	$ 0	0	0
	$ 0	0	$ 0	0	0
		Total	$ 0		

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 10.

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 1992 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 2,150,868 lbs.	$279615	xxxxxxxx	$ 2400	$282015
Dairy Cattle	21420	$34680	-2000	54100
Dairy Calves	2280	xxxxxxxx	-250	2030
Other Livestock		9600		9600
Crops	600	23759		24359
Government Receipts	3250	-2000[3]		1250
Custom Machine Work	150	xxxxxxxx		150
Gas Tax Refunds	250	xxxxxxxx		250
Other: Pat Refund $ 200				
$				
$				
Total Other	200	xxxxxxxx		200
TOTAL	$307765	$66039	$ 150	$373954
Sale of other stock & certificates (exclude Farm Credit stock)				$ 0

Nonfarm Receipts:
Cash income (describe & itemize largest amounts: Sam's income : $12,000 ; Real Est. mort. : $ 520) total -$12520
Cash used in the business from nonfarm capital $ 2,000
Noncash capital transferred to farm business for cattle, crops, etc. (e.g. gifts/inheritances) [excluding machinery (enter Screen 2) & real estate (enter Screen 5)] $30,000

[1]End of year (at beginning prices for cattle) minus beginning of year. [2]Use Worksheet 6 on page 8 to calculate. [3]Change in advanced government receipts (beginning year - end year) calculated from values entered in Screen 10, page 7.

Farm No.46002 Screen #12

SUMMARY OF YEARLY RECEIPTS & CHANGES IN INVENTORY & ACCOUNTS RECEIVABLE

Receipts	Cash Receipts +	Changes in Inventory +	Changes in Accts Rec. =	Accrual Receipts
Milk 2150868 lbs	$ 279615		$ 2400	$ 282015
Dairy Cattle	$ 21420	$ 34680	$ -2000	$ 54100
Dairy Calves	$ 2280		$ -250	$ 2030
Other Livestock	$ 0	$ 9600	$ 0	$ 9600
Crops	$ 600	$ 23759	$ 0	$ 24359
Government Recpts	$ 3250	$ -2000	$ 0	$ 1250
Cust Mach Work	$ 150		$ 0	$ 150
Gas Tax Refunds	$ 250		$ 0	$ 250
Other	$ 200		$ 0	$ 200
TOTAL	$ 307765	$ 66039	$ 150	$ 373954
Sale of Other Stock & Certificates (exclude Farm Credit Stock)				$ 0

NONFARM RECEIPTS	
Cash Income	$ 12520
Cash Used in Business from Nonfarm Capital	$ 2000
Noncash Capital Transferred to Farm Business, Cattle & Crops	$ 30000

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 1992 EXPENSES & CHANGES IN INVENTORY & ACCOUNTS PAYABLE

See page 12 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	$ 10,000	$x_____x	$_____	$ 10,000
Feed (see Guideline 2 on page 12)				
Dairy grain & concentrate	84,000	-3,800	8,000	88,200
Dairy roughage	_____	.....	_____	.....
Nondairy feed	_____	.....	_____	.....
Machinery				
Machine hire, rent & lease	15,245	x-350 x	_____	14,895
Machinery repairs & parts	7,000	-20	800	7,780
Auto expense (farm share)	1,000	x_____x	_____	1,000
Fuel, oil & grease	6,250	-28	_____	6,278
Livestock				
Replacement livestock	_____	x_____x	_____	.....
Breeding	5,750	300	_____	6,050
Veterinary & medicine	9,000	25	2,000	11,025
Milk marketing	10,000	x_____x	_____	10,000
Cattle lease/rent	_____	x_____x	_____	.....
Other livestock expense	5,400	.....	_____	5,400
Crops				
Fertilizer & lime	22,150	-500 [3]	2,200	23,850 [3]
Seeds & plants	6,350	100 [3]	600	7,050 [3]
Spray, other crop expense	5,170	[3]	_____	5,170 [3]
Real Estate				
Land, building, fence repair	2,500	200	_____	2,700
Taxes	6,240	x_____x	_____	6,240
Rent & lease	9,250	x-125 x	_____	9,125
Other				
Insurance	7,000	x-100 x	_____	6,900
Telephone (farm share)	950	x-25 x	_____	925
Electricity (farm share)	6,750	x_____x	_____	6,750
Interest	30,404	x_____x	3,600	34,004
Miscellaneous	1,500	.....	_____	1,500
TOTAL OPERATING	$250,909	$-4,267	$17,200	$263,842
Expansion livestock	$ 20,000	x_____x	_____	$ 20,000
Purchase of other stock & certificates (exclude Farm Credit stock)				$ 1,200
Nonfarm Cash Expenses				
Personal withdrawals & family expenditures[4]				$ 48,126

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

[2] Use Worksheet 7 on page 10 to calculate.

[3] Must calculate for completion of Screen 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 10, page 7. If any or all "Nonfarm Cash Income" has been excluded from the value entered in Screen 12, pg. 9, you must also exclude any family expenses paid from that income.

Farm No.46002 Screen #13

SUMMARY OF YEARS EXPENSES & CHANGES IN INVENTORY & ACCOUNTS PAYABLE

Expenses	Cash Amount Paid +	Change in Inv. or Prepd exp +	Change In Accts Payable =	Accrual Expenses
Hired Labor	$ 10000	$ 0	$ 0	$ 10000
FEED				
Dairy Grain/Conc	$ 84000	$ -3800	$ 8000	$ 88200
Dairy Roughage	$ 0	$ 0	$ 0	$ 0
Nondairy Feed	$ 0	$ 0	$ 0	$ 0
MACHINERY				
Mach Hire/Rent/Ls	$ 15245	$ -350	$ 0	$ 14895
Mach repair/parts	$ 7000	$ -20	$ 800	$ 7780
Auto Expense	$ 1000	$ 0	$ 0	$ 1000
Fuel Oil & Grease	$ 6250	$ 28	$ 0	$ 6278
LIVESTOCK				
Replacement Lvstk	$ 0	$ 0	$ 0	$ 0
Breeding	$ 5750	$ 300	$ 0	$ 6050
Vet & Medicine	$ 9000	$ 25	$ 2000	$ 11025
Milk Marketing	$ 10000	$ 0	$ 0	$ 10000
Cattle Lease	$ 0	$ 0	$ 0	$ 0
Other Lvstk Exp	$ 5400	$ 0	$ 0	$ 5400

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	$ 22150	$ -500	$ 2200	$ 23850
Seeds & Plants	$ 6350	$ 100	$ 600	$ 7050
Spray/Other Exp	$ 5170	$ 0	$ 0	$ 5170
REAL ESTATE				
Land/Bldg Repair	$ 2500	$ 200	$ 0	$ 2700
Taxes	$ 6240	$ 0	$ 0	$ 6240
Rent/Lease	$ 8250	$ -125	$ 0	$ 8125
OTHER				
Insurance	$ 7000	$ -100	$ 0	$ 6900
Telephone	$ 950	$ -25	$ 0	$ 925
Electricity	$ 6750	$ 0	$ 0	$ 6750
Interest Paid	$ 30404	$ 0	$ 3600	$ 34004
Miscellaneous	$ 1500	$ 0	$ 0	$ 1500
TOTAL	$ 250909	$ -4267	$ 17200	$ 263842
Expansion Lvstk.	$ 20000	$ 0	$ 0	$ 20000
Purchase of Other Stock & Certificates(exclude Farm Credit)				$ 1200
NONFARM CASH EXPENSES				
Personal Withdrawals & Family Expenditures				$ 48126

The final screen, Screen 14, contains the breakdown of crop expenses by crop. 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 and corn 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.

BREAKDOWN OF 1992 ACCRUAL CROP EXPENSES BY CROP

Crop	*Accrual Fertilizer & Lime*	*Accrual Seeds & Plants*	SCREEN 14. *Accrual Spray, Other Crop Expenses*
Hay crop (silage & dry)	$ 10,692	$ 2,256	$ 1,895
Corn (silage & grain)	13,158	4,794	3,275
All other crops	0	0	0
Total	$ 23,850	$ 7,050	$ 5,170

Totals above must equal accrual expenses in Screen 13.

Farm No.46002 Screen #14

BREAKDOWN OF 1992 ACCRUAL CROP EXPENSES BY CROP

Crop	Accrual Fertilizer & Lime	Accrual Seeds & Plants	Accrual Spray, Other Crop Expenses
Hay Crop (silage & dry)	$ 10692	$ 2256	$ 1895
Corn (silage & grain)	$ 13158	$ 4794	$ 3275
All Other Crops	$ 0	$ 0	$ 0
TOTAL	$ 23850	$ 7050	$ 5170

Totals above must equal accrual expenses in right column of screen 13A.

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:

46002 ↵ (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 "Drala Dairyman", the following message would appear on the screen:

ENTRY DOES NOT MATCH PREVIOUS ENTRY

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

LAST ENTRY DIDN'T MATCH - ACCEPTED WITHOUT QUESTION

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

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

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

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

VI. Calculate and print farm summary.[8]

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

46002 ↵ (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: **Press (A)11 Pages, (D)iagnostics, (C)ash Flow, or number of 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 you last year's format of the Cash Flow Statement; 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:

1991 FILE DOES NOT EXIST - SETTING VALUES TO 0
1990 FILE DOES NOT EXIST - SETTING VALUES TO 0

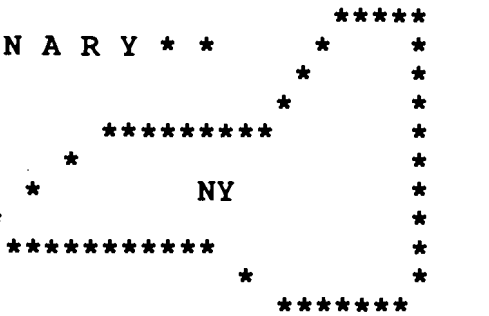
[10]If there is an I/O error F3 during calculation, follow the instructions in Appendix D.

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

CORNELL COOPERATIVE EXTENSION
Prepared by
DEPARTMENT OF AGRICULTURAL ECONOMICS
CORNELL UNIVERSITY

Name Do-right Dairy

Address RD #1 Box 22
Farmingville, NY



* * * * * P R E L I M I N A R Y * * * * *

1992 DAIRY FARM BUSINESS SUMMARY

FARM NO. 46002 JANUARY 18, 1993

PROGRESS OF THE FARM BUSINESS

SELECTED FACTORS	1990	1991	1992
Size of Business			
Avg # of cows	88	94	118
Avg # of heifers	57	68	80
Milk sold, lbs.	1538172	1690022	2150868
Worker equiv.	2.75	3.25	3.50
Total tillable acres	325	375	450
Rates of Production			
Milk sold per cow,lbs.	17479	17979	18228
Hay DM per acre,tons	2.2	2.2	2.2
Corn silage per acre,tons	14	14	15
Labor Efficiency			
Cows per worker	32	29	34
Milk sold per worker,lbs.	559335	520007	614534
Cost Control			
Grain & conc. purch. as % milk sales	33%	33%	31%
Dairy feed & crop exp. per cwt. milk	$ 5.87	$ 5.81	$ 5.78
Labor and mach. costs per cow	$ 938	$ 1016	$ 1028
Operating cost of producing milk	$ 10.49	$ 9.15	$ 10.32
Capital Efficiency (average for year)			
Farm capital per cow	$ 6946	$ 6902	$ 6595
Machinery and equipment per cow	$ 1925	$ 1816	$ 1647
Asset turnover ratio	0.42	0.44	0.48
Profitability			
Net farm income w/o apprec.	$ 9865	$ 24614	$ 24492
Net farm income w/ appreciation	$ 50615	$ 56699	$ 51062
Labor & management income per op/mgr	$ -5500	$ -943	$ -6158
Rate return on equity capital w/apprec	2.0%	2.4%	-0.2%
Rate return on all capital w/apprec.	4.2%	4.7%	4.2%
Financial Summary			
Farm net worth, end year	$ 375625	$ 402284	$ 551040
Debt to asset ratio	0.41	0.41	0.35
Farm debt per cow	$ 2929	$ 2817	$ 2339
Cash flow coverage ratio	0.45	0.60	1.28

PARTNERSHIP, ON FARM COMPUTER, OWNER, FULL-TIME, DAIRY.*

2

FARM NO. 46002 JANUARY 18, 1993

Do-right Dairy

INCOME STATEMENT

EXPENSES	Cash Amount paid +	Change in Inventory or Prepaid Expense* +	Change in Accounts Payable** =	Accrual Expenses
Hired Labor	$ 10000	$ 0<<	$ 0	$ 10000
Feed				
Dairy grain & conc.	84000	-3800	8000	88200
Dairy roughage	0	0	0	0
Nondairy	0	0	0	0
Machinery				
Mach hire, rent/lease	15245	-350<<	0	14895
Machinery repairs/parts	7000	-20	800	7780
Auto expense (f.s.)	1000	0<<	0	1000
Fuel, oil & grease	6250	28	0	6278
Livestock				
Replacement livestock	0	0<<	0	0
Breeding	5750	300	0	6050
Veterinary & medicine	9000	25	2000	11025
Milk marketing	10000	0<<	0	10000
Cattle lease/rent	0	0<<	0	0
Other livestock expense	5400	0	0	5400
Crops				
Fertilizer & lime	22150	-500	2200	23850
Seeds & plants	6350	100	600	7050
Spray, other crop exp.	5170	0	0	5170
Real Estate				
Land/bldg/fence repair	2500	200	0	2700
Taxes	6240	0<<	0	6240
Rent & lease	8250	-125<<	0	8125
Other				
Insurance	7000	-100<<	0	6900
Telephone (farm share)	950	-25<<	0	925
Electricity (farm share)	6750	0<<	0	6750
Interest paid	30404	0<<	3600	34004
Miscellaneous	1500	0	0	1500
TOTAL OPERATING	$ 250909	$ -4267	$ 17200	$ 263842
Expansion livestock	$ 20000	$ 0<<	$ 0	$ 20000
Machinery depreciation				$ 27300
Building depreciation				$ 8320
TOTAL ACCRUAL EXPENSES				$ 319462

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

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

FARM NO. 46002 JANUARY 18, 1993

INCOME STATEMENT (continued)

RECEIPTS	Cash Receipts	+ Change in Inventory*	+ Change in Accounts Receivable	= Accrual Receipts
Milk sales	$ 279615		$ 2400	$ 282015
Dairy cattle	21420	$ 34680	-2000	54100
Dairy calves	2280		-250	2030
Other livestock	0	9600	0	9600
Crops	600	23759	0	24359
Gov't receipts	3250	-2000**	0	1250
Custom machine work	150		0	150
Gas tax refund	250		0	250
Other	200		0	200
-Noncash capital transfer		(-) 30000***		(-) 30000
TOTAL ACCRUAL RECEIPTS	$ 307765	$ 36039	$ 150	$ 343954

*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

RETURN TO OPERATOR(S) & FAMILY LABOR UNPAID, MGMT., & EQUITY CAPITAL:	Without Apprec.	+ Appreci-ation	= With Apprec.
Total Accrual Receipts	$ 343954		
Livestock Appreciation		$ 18300	
Machinery Appreciation		1750	
Real Estate Appreciation		7520	
Other Stock/Cert. Appreciation		-1000	
			$ 370524
- Total Accrual Expenses	$ 319462		$ 319462
= NET FARM INCOME	$ 24492		$ 51062
RETURN TO OPERATOR(S) LABOR, MANAGEMENT & EQUITY CAPITAL:			
Net Farm Income	$ 24492		$ 51062
- Family Labor Unpaid @ $1350/mo.	12150		12150
= RETURN TO OP.'S LABOR, MGT. & EQ. CAPITAL	$ 12342		$ 38912
RETURN TO OPERATOR'S LABOR & MANAGEMENT:			
Return to Op.'s Labor, Mgt. & Eq. Capital	$ 12342		
- Real Interest on $ 493162 Average Equity Capital @ 5%	24658		
= LABOR & MANAGEMENT INCOME	$ -12316		
LABOR & MANAGEMENT INC. PER 2.00 OP./MGR.	$ -6158		
RETURN TO EQUITY CAPITAL:			
Return to Op.'s Labor Mgt. & Eq. Capital	$ 12342		$ 38912
- Value of Operator's Labor & Management	40000		40000
= RETURN TO EQUITY CAPITAL	$ -27658		$ -1088
Rate of Return on Equity Capital	-5.6%		-0.2%
RETURN TO ALL CAPITAL:			
Return to Equity Capital	$ -27658		$ -1088
+ Interest Paid	34004		34004
= RETURN TO ALL CAPITAL	$ 6346		$ 32916
Rate of Return on All Capital	0.8%		4.2%

4

FARM NO. 46002 JANUARY 18, 1993

Do-right Dairy 1992 BALANCE SHEET

FARM BUSINESS

ASSETS	Jan. 1	Dec. 31	LIABILITIES & NET WORTH	Jan. 1	Dec. 31
Current			Current		
Farm cash, chkg & savings	$ 20000	$ 5000	Accounts payable	$ 9000	$ 26200
Accts. rec.	20575	20725	Operating debt		
Prepaid exp.	200	800	Farm Credit3	16000	15000
Feed/supplies	59849	87275		0	0
			Short term:		
				0	0
				0	0
Total	$ 100624	$ 113800	Advanced Gov. Rec.	0	2000
			Total	$ 25000	$ 43200
Intermediate					
Dairy cows:			Intermediate		
owned	90160	129540	First Bank	31000	43000
leased	0	0	Farm Credit2	30000	33000
Heifers	47500	60500	John Deere	42000	39000
Bulls/other				0	0
lvstk.	0	10200		0	0
Mach/eq owned	185000	195000		0	0
Mach/eq leased	5073	3613		0	0
FCB Stock	6950	7250	Financial lease		
Other stock			(cattle/mach.)	5073	3613
& cert.	3000	3200	FCB Stock	6950	7250
Total	$ 337683	$ 409303	Total	$ 115023	$ 125863
Long-Term			Long-Term		
Land/buildings:			1st Bank Mtg	73000	70000
owned	270000	325000	Farm Credit1	60000	58000
leased	0	0		0	0
Total	$ 270000	$ 325000		0	0
			Fin. lease (struc)	0	0
Total Farm			Total	$ 133000	$ 128000
Assets	$ 708307	$ 848103	Total Farm Liab.	$ 273023	$ 297063
			FARM NET WORTH	$ 435284	$ 551040

NONFARM

	Jan. 1	Dec. 31		Jan. 1	Dec. 31
Nonfarm Assets			Nonfarm Liab.	$ 0	$ 0
Pers cash, chkg. & savings	$ 2000	$ 2100			
Cash value of life ins	3000	3100			
Nonfarm RE	0	0			
Auto (pers sh)	2000	1500			
Stocks & Bonds	0	0			
Hshld. furn.	5000	5000			
All other	8000	27700			
Total Nonfarm	$ 20000	$ 39400	NONFARM NET WORTH	$ 20000	$ 39400

FARM & NONFARM

			Total Farm & Nonfarm Liab.	$ 273023	$ 297063
Total Farm & Nonfarm Assets	$ 728307	$ 887503	FARM & NONFARM NET WORTH	$ 455284	$ 590440

FARM NO. 46002 JANUARY 18, 1993

BALANCE SHEET ANALYSIS

Financial Ratios		Farm Business	Farm & Nonfarm
Percent equity		65%	67%
Debt to asset ratios:	Total	0.35	0.33
	Long-term	0.39	
	Intermediate/current	0.32	

Debt Analysis

Accounts payable as % of total debt	9%
Long-term debt as a % of total debt	43%
Current & intermediate debt as % of total debt	57%

Debt Levels

	Per Cow	Per Tillable Acre Owned
Total farm debt	$ 2339	$ 990
Long-term debt	1008	427
Intermediate/current	1331	564

Farm Inventory	Real Estate	Machinery & Equipment	Livestock	Feed & Supplies
Beginning of Year	$ 270000	$ 185000	$ 137660	$ 59849
Purchases	7500*	31300		
+ Noncash Transfer to Farm	80000	10500		
- Lost Capital	2200			
- Net Sales	29500	6250		
- Depreciation	8320	27300		
= Net Investment	47480	8250	44280**	
Appreciation	7520	1750	18300	
End of Year	$ 325000	$ 195000	$ 200240	$ 87275

* $ 0 Land + $ 7500 Building.

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

FARM NO. 46002 6 JANUARY 18, 1993

STATEMENT OF OWNER EQUITY (RECONCILIATION)

		Farm Business
Beginning of year farm net worth		$ 435284
Net farm income without appreciation	$ 24492	
+ Nonfarm cash income	+ 12520	
- Personal withdrawals and family expenditures	- 48126	
RETAINED EARNINGS	=	+$ -11114
Nonfarm noncash transfers to farm	$ 120500	
+ Cash used in business from nonfarm capital	+ 2000	
- Note/mortgage from farm real est. sold (nonfarm)	- 20000	
CONTRIBUTED/WITHDRAWN CAPITAL	=	+$ 102500
Appreciation	$ 26570	
- Lost capital	- 2200	
CHANGE IN VALUATION EQUITY	=	+$ 24370
IMBALANCE/ERROR		-$ 0
End of year farm net worth		=$ 551040
Change in net worth with appreciation		$ 115756

Change in Net Worth	Farm Business	Farm & Nonfarm
Without appreciation	$ 89186	
With appreciation	$ 115756	$ 135156

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. 46002 7 JANUARY 18, 1993

ANNUAL CASH FLOW STATEMENT

Cash Flow From Operating Activities			
Cash farm receipts	$ 307765		
- Cash farm expenses	250909		
= Net cash farm income		$ 56856	
Nonfarm income	12520		
- Personal withdrawals/ family expenses, including nonfarm debt payments	48126		
+ Net cash nonfarm income		$ -35606	
= Net Provided by Operating Activities			$ 21250
Cash Flow From Investing Activities			
Sale of assets: machinery	$ 6250		
+ real estate	9500		
+ other stock/cert.	0		
= Total asset sales		$ 15750	
Capital purchases: expansion livestock	$ 20000		
+ machinery	31300		
+ real estate	7500		
+ other stock/cert.	1200		
- Total invested in farm assets		$ 60000	
= Net Provided by Investing Activities			$ -44250
Cash Flow From Financing Activities			
Money borrowed (intermediate & long-term)	$ 20000		
+ Money borrowed (short-term)	0		
+ Increase in operating debt	0		
+ Cash from nonfarm capital used in business	2000		
+ Money borrowed - nonfarm	0		
= Cash inflow from financing		$ 22000	
Principal payments (inter. & long-term)	$ 13000		
+ Principal payments (short-term)	0		
+ Decrease in operating debt	1000		
- Cash outflow for financing		$ 14000	
= Net Provided by Financing Activities			$ 8000
Cash Flow From Reserves			
Beginning farm cash, checking & savings		$ 20000	
- Ending farm cash, checking & savings		5000	
= Net Provided from Reserves			$ 15000
Imbalance (error)			$ 0

8

FARM NO. 46002 JANUARY 18, 1993

REPAYMENT ANALYSIS

Debt Payments	Planned for 1992*	Made in 1992	Planned for 1993
Long term	$ 16644	$ 15456	$ 15456
Intermediate term	21804	21948	21948
Short-term	0	0	0
Operating (net reduction)	2000	1000	4000
Accounts payable (net reduction)	0	0	1000
Total	$ 40448	$ 38404	$ 42404
(% made of planned = 95%)			
Per cow	$ 343	$ 325	
Per cwt. 1992 milk	$ 1.88	$ 1.79	
Percent of total 1992 receipts	12%	11%	
Percent of 1992 milk receipts	14%	14%	

* If on Business Summary in 1991.

Cash Flow Coverage Ratio

Cash Farm Receipts	$ 307765	
- Cash Farm Expenses	250909	
+ Interest Paid	30404	
- Net Pers. Withdls from Farm**	35606	
(A) = Amount Available for Debt Service		$ 51654
(B) = Debt Payments Planned for 1992		$ 40448
(A / B) Cash Flow Coverage Ratio for 1992		1.28

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

9

FARM NO. 46002 JANUARY 18, 1993

CROPPING PROGRAM ANALYSIS

Land	Owned	Rented	Total
Tillable	300	150	450
Nontillable	10	10	20
Other nontillable	65	5	70
Total	375	165	540

Crop Yields	Acres	Total Production	Production Per Acre
Dry hay		128 Tons DM	
Hay crop silage		520 Tons DM	
Total Hay Crop Production	300	648 Tons DM	2.16 Tons DM
Corn silage	70	1025 Tons	14.64 Tons
		359 Tons DM	5.13 Tons DM
Other forage	10	16 Tons DM	1.60 Tons DM
Total Forage	380	1023 Tons DM	2.69 Tons DM
Corn grain	70	6500 Bushels	92.86 Bushels
Oats	0	0 Bushels	0.00 Bushels
Wheat	0	0 Bushels	0.00 Bushels
Other crops	0		
Tillable pasture	0		
Idle tillable land	0		
Total tillable acres	450		

Crop Related Accrual Expenses

Crops	Total/ Till. Acre	Hay Crop Per Acre	Hay Crop Per Ton DM	All Corn Per Acre	Corn Silage/ Ton DM	Corn Grain Per Dry Shell Bu.
Fert. & lime	$ 53.00	$ 35.64	$ 16.50	$ 93.99	$ 18.33	$ 1.01
Seeds & plants	15.67	7.52	3.48	34.24	6.68	0.37
Spray/other crop expense	11.49	6.32	2.92	23.39	4.56	0.25
Total Crop	$ 80.16	$ 49.48	$ 22.91	$ 151.62	$ 29.56	$ 1.63

Machinery	Total	Per Tillable Acre
Fuel, oil & grease	$ 6278	$ 13.95
Machinery repair & parts	7780	17.29
Machine hire, rent & lease	14895	33.10
Auto expense (farm share)	1000	2.22
Interest (5%)	9500	21.11
Depreciation	27300	60.67
Total Machinery Cost	$ 66753	$ 148.34

Crop/Cow Factors

Total Tillable Acres per Cow	3.81
Total Forage Acres per Cow	3.22
Harvested Forage Dry Matter per Cow	8.67

10

FARM NO. 46002 JANUARY 18, 1993

DAIRY ANALYSIS

Dairy Inventory	Dairy Cows No.	Dairy Cows Value	Heifers Bred No.	Heifers Bred Value	Heifers Open No.	Heifers Open Value	Heifers Calves No.	Heifers Calves Value
Beg. of Year	98	$ 90160	20	$ 18000	25	$ 17500	30	$ 12000
+ Change in Inv. (w/o apprec.)		26680		4500		3500		0
+ Appreciation		12700		1250		1500		2250
= End of Year	127	$ 129540	25	$ 23750	30	$ 22500	30	$ 14250
Total End (incl. leased)	127							
Average Number	118		80	All Age Groups				

Milk Production

Total milk sold	2150868 lbs.
Milk sold per cow	18228 lbs.
Average milk plant test	3.80 % butterfat

Accrual Receipts From Dairy	Total	Per Cow	Per Cwt.
Milk	$ 282015	$ 2390	$ 13.11
Dairy cattle (including culls)	54100	458	2.52
Dairy calves	2030	17	0.09
Total	$ 338145	$ 2866	$ 15.72

Accrual Cost of Producing Milk - Whole Farm Method

Operating cost of producing milk	$ 221903	$ 1881	$ 10.32
Total cost of producing milk excluding operator's labor, management & capital	269673	2285	12.54
Total cost of producing milk	334331	2833	15.54

Dairy Related Accrual Expenses

Purchased dairy grain & concentrates	$ 88200	$ 747	$ 4.10
Purchased dairy roughage	0	0	0.00
Total Purchased Dairy Feed	88200	747	4.10
Purchased grain & concentrates as % of milk receipts	31%		
Purchased feed & crop exp.	$ 124270	$ 1053	$ 5.78
Purchased feed & crop exp. as % of milk receipts	44%		
Breeding	$ 6050	$ 51	$ 0.28
Veterinary & medicine	11025	93	0.51
Milk marketing	10000	85	0.46
Cattle lease	0	0	0.00
Other livestock expense	$ 5400	$ 46	$ 0.25

D.H.I, HERRINGBONE PAR, FREESTALL, 2 TIMES/DAY.

11

FARM NO. 46002 JANUARY 18, 1993

CAPITAL & LABOR EFFICIENCY ANALYSIS

Capital Efficiency (Average for Year)

	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Farm capital	$ 222344	$ 6595	$ 1729	$ 2594
Real estate		2521		992
Machinery & equip.	55527	1647	432	

Asset Turnover Ratio 0.48

Labor Force	Months	Age	Years of Education	Value of Labor & Mgmt.
Operator number 1	12	42	15	$ 20000
Operator number 2	12	31	15	$ 20000
Family paid	9			
Family unpaid	9			
Hired	0			
Total	42 / 12 =	3.50 Worker Equivalent		
		2.00 Operator/Manager Equivalent		

Labor Efficiency

	Total	Per Worker
Cows, average no.	118	34
Milk sold, lbs.	2150868	614534
Tillable acres	450	129
Work units	1282	366

Labor Cost	Total	Per Cow	Per Till Acre
Value of Operator(s) Labor ($1350/month)*	$ 32400	$ 275	$ 72.00
Family unpaid ($1350/month)*	12150	103	27.00
Hired	10000	85	22.22
Total Labor	$ 54550	$ 462	$ 121.22
Machinery Cost (see page 9)	$ 66753	$ 566	$ 148.34
Total Labor & Machinery Costs	$ 121303	$ 1028	$ 269.56

* When comparing to previous years data, please note 1989 constants used in calculations were $1050/month for the Value of Operator(s) Labor and $750/month for Unpaid Family Labor. In 1990, the Value of Operator(s) Labor and Unpaid Family Labor were both $ 1,250/month and in 1991 they were both $1300/month.

FARM NO. 46002 12 JANUARY 18, 1993

ANNUAL CASH FLOW WORKSHEET

Item	Receipt or Expense Total	Per Cow	Expected Change	1993 Projection
Average Number of Cows	118			
ACCRUAL OPERATING RECEIPTS				
Milk	$ 282015	$2389.96		$
Dairy cattle	54100	458.47		
Dairy calves	2030	17.20		
Other livestock	9600	81.36		
Crops	24359	206.43		
Miscellaneous receipts	1850	15.68		
Total	$ 373954	$3169.10		$
ACCRUAL OPERATING EXPENSES				
Hired labor	$ 10000	$ 84.75		$
Dairy grain & concentrate	88200	747.46		
Dairy roughage	0	0.00		
Nondairy feed	0	0.00		
Machine hire/rent/lease	14895	126.23		
Mach.repair/parts & auto	8780	74.41		
Fuel, oil & grease	6278	53.20		
Replacement livestock	0	0.00		
Breeding	6050	51.27		
Veterinary & medicine	11025	93.43		
Milk marketing	10000	84.75		
Cattle lease	0	0.00		
Other livestock expense	5400	45.76		
Fertilizer & lime	23850	202.12		
Seeds & plants	7050	59.75		
Spray/other crop expense	5170	43.81		
Land, bldg., fence repair	2700	22.88		
Taxes	6240	52.88		
Real estate rent/lease	8125	68.86		
Insurance	6900	58.47		
Utilities	7675	65.04		
Miscellaneous	1500	12.71		
Total Less Interest Paid	$ 229838	$1947.78		$
NET ACCRUAL OPERATING INCOME (w/o interest paid)	$ 144116	$1221.32		$
- Change in lvstk/crop inv	36039	305.42		
- Change in accounts rec.	150	1.27		
+ Change in feed/supply inv	-4267	-36.16		
+ Change in accts. payable*	13600	115.25		
NET CASH FLOW	$ 117260	$ 993.73		$
- Net personal withdrawals & family expenditures	35606	301.75		
Available for Farm Debt Payments & Investments	$ 81654	$ 691.98		$
- Farm debt payments**	38404	325.46		
Avail. for Farm Investment	$ 43250	$ 366.53		$
- Capital purchases; cattle, machinery, improvements	60000	508.47		
Additional Capital Needed				$

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

FARM NO. 46002 JANUARY 18, 1993

MACHINERY & EQUIPMENT INVENTORY
FEED AND SUPPLY INVENTORY

2.Feed & supply inventory increase > 25%.

LIVESTOCK INVENTORY
REAL ESTATE INVENTORY
LIVESTOCK & BUSINESS DESCRIPTION
LABOR
ASSETS AND LIABILITIES
FINANCIAL LEASES
RECEIPTS
EXPENSES
CROP EXPENSE BREAKDOWN

13.Total crop expense per acre of corn is > $150 or < $50, = $ 151.62.

MANAGEMENT PERFORMANCE MEASURES

*.Net farm income w/appreciation = $ 51062.
*.Labor & management income/operator < $0 or > $30,000 = $ -6158.
*.Rate return on equity capital w/o appreciation = -5.6.
*.Rate return on equity capital w/appreciation = -0.2.
*.Cash flow coverage ratio < .8 or > 1.2, = 1.28.
*.Cash inflow = $ 378035, Cash outflow = $ 378035, Imbalance =$ 0.

OTHER

Farm coded irregular.
Dairy Farm
Full-Time Farm
OWNER

Optional Cash Flow Statement
FARM NO. 46002 JANUARY 18, 1993

ANNUAL CASH FLOW STATEMENT

Cash Inflows			
Beginning farm cash, checking & savings		$ 20000	
Cash farm receipts		307765	
Sale of assets:	Machinery	6250	
	Real estate	9500	
	Other stock & certificates	0	
Money borrowed (intermediate & long-term)		20000	
Money borrowed (short-term)		0	
Increase in operating debt		0	
Nonfarm income		12520	
Cash from nonfarm capital used in business		2000	
Money borrowed - nonfarm		0	
TOTAL			$ 378035
Cash Outflows			
Cash farm expenses		$ 250909	
Capital purchases:	Expansion livestock	20000	
	Machinery	31300	
	Real estate	7500	
	Other stock & certificates	1200	
Principal payments (intermediate & long-term)		13000	
Principal payments (short-term)		0	
Decrease in operating debt		1000	
Personal withdrawals & family expenditures, including nonfarm debt payments		48126	
Ending farm cash, checking & savings		5000	
TOTAL			$ 378035
Imbalance (error)			$ 0

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 48 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.>.92) 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:\

46002    910       331    1-08-93   2:34p
46002    900       270    1-08-93   2:34p
46002    92       8809    1-15-93   8:29a
        3 File(s)     61440 bytes free
```

The 1992 farm record files entered in 1993 will have file extensions of .92. The sample farm is file 46002.92.

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/Ø 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 .92) must be one less than the year you entered when you turned the computer on or typed "DATE"	Rename the file, changing the file extension. See your DOS manual, RENAME command
Disk error on drive A (or B or C)	Diskette not inserted, door not closed, bad diskette	Insert diskette Close door Try again or copy files from other drive. Replace diskette.
	Drive out of alignment	Service disk drive
CAN'T OPEN FILE!! or other cycling - keyboard won't respond	Cannot locate a file	Check file name. Use DIR command to check disk to see if file exists.

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

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

---

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

WHAT TO DO WHEN THE DISKETTE GETS FULL

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

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

When this happens, you will need to use the DOS command COPY to copy the current and previous years' farm record files to another diskette. For example, to copy the record files for farm 46002 to a new diskette, remove the DFBS program diskette from drive A and insert a blank, formatted diskette. Then type:

```
COPY B:46002.* 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 11 and 13). Cows may in fact be rented from others or boarded for others. In this situation, do not report cows as leased, but enter the rental expense on Screen 13 and total average numbers, including rentals, on Screen 6.

3. "Livestock appreciation is < $0, = $_____."

Livestock values fell from beginning to end of year (Screen 4). Check to make certain this occurred.

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

The majority of the increase in total livestock inventory resulted from price increases and not growth or quality improvement of the herd (Screen 4). Check to see if this is accurate.

3. "Expansion livestock expense > $0 but no increase in dairy cow numbers."

An inconsistency exists. If herd size did not increase from beginning to end of year, cattle purchases were not for increase of herd size. Cattle purchases should be entered under "Replacement Livestock" on Screen 13.

An exception to the above is the purchase of youngstock/bred heifers in anticipation of a herd size increase. If this is the situation, disregard the diagnostic.

3. "Dairy cow numbers decreased _____ and dairy cattle sales < $400/head."

The revenue from dairy cattle sales is divided by the number of cows by which herd size decreased and this diagnostic is printed if the result is less than $400 per head.

Did dairy cow numbers decrease (Screen 4) and, if so, were the prices received for cull cows low or did a higher proportion of cows die, or was the sales revenue not accurately reported (Screen 13)? Check the accuracy of input data.

3. "Dairy cow end year inventory at beginning prices > beginning year inventory but no increase in dairy cow numbers."

Quality of cows increased from beginning to end of year (Screen 3). Check to see if this is accurate.

3. "Dairy cow end year inventory at beginning prices < beginning year inventory but no decrease in dairy cow numbers."

Quality of cows decreased from beginning to end of year (Screen 3). Check to see if this is accurate.

3. "Number of cows = 0, total value = $x." (Where x > 0)
"Number of cows = x, total value = $0." (Where x > 0)

(Also for heifers and bulls and other livestock.)

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

REAL ESTATE INVENTORY

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

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

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

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

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

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

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

If land is owned, a market value was not entered (Screen 4). 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 4). Check to see if machinery and equipment or livestock depreciation was incorrectly included. Large investments in new buildings may justify depreciation in excess of four percent.

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

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

LIVESTOCK AND BUSINESS DESCRIPTION

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

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

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

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

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

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

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

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

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

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

5. "Invalid business description."

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

LABOR

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

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

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

Hired labor expense was recorded on Screen 13 but no months of hired labor were recorded on Screen 7. Check to be certain these

two entries are consistent. Example: labor hired off farm to repair a roof should be reported as land, building, and fence repair, not as hired labor. If the farm is a partnership or corporation, check the labor inventory against business organization for consistency.

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

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

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

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

LAND AND CROPS

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

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

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

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

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

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

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

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

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

Corn grain yield is outside "normal" range. Check to see if moisture conversion and/or bushel conversions were done correctly

(Screen 8). Check acres in corn grain and repeat calculations of quantity harvested.

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

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

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

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

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

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

ASSETS AND LIABILITIES

7. "Scheduled debt payments > 0.35 of milk sales = _____%."

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

7. "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.

7. "Farm net worth < 0.30 of farm capital. NW = _____."

Farm net worth is lower than normal (Screen 10). Check all calculations for accuracy. Falling asset values and increased borrowing may have contributed.

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

Debt per cow is above average. Check for accuracy of data (Screens 6 and 10).

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

The December milk check may not have been included as an account receivable (Screen 12). Check to see if all accounts have been included.

7. "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 10). Check to see if this is correct.

7. "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.

7. "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 10).

7. "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 10).

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

Short-term planned payments are higher than expected. Check for accuracy of entries (Screen 10).

7. "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 10). Check to see if interest is included.

7. "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 10). Check to make certain interest and penalties have not been included.

7. "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 10). Check to make certain the data are accurate.

7. "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 10).

7. "Amount of money borrowed entered (_____) does not equal calculated money borrowed (_____)."

If a value was entered in the "amount of new borrowings" column (Screen 10), 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 10).

FINANCIAL LEASES

8. "Leases cattle but no lease expense."

Cattle are leased (Screen 11) 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.

8. "Leases equipment but no lease expense."

Equipment is leased (Screen 11), 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.

8. "Leases structures but no lease expense."

Structures are leased (Screen 11), 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.

RECEIPTS

9. "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).

9. "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).

9. "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.

9. "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.

9. "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.

9. "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 & 9 "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

11. "Hired labor expense < $600 or > $2,000 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 & 11 "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.

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

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

11. "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.

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

Farm liabilities exist (Screen 10), 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.

11. "Interest expense on page 11 does not equal interest payments on page 7."

The total farm liability interest (Screen 10) does not equal cash

interest expense (Screen 13). Check to see if data was collected and entered correctly. These two totals must be identical.

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

Cattle lease expense is reported (Screen 13), but lease information is missing (Screen 11). Record the information on Screen 13 once the existence of an actual lease has been verified.

11. "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.

11. "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.

6 & 11 "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.

7 & 11 "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 10 does not equal the total accounts payable change on Screen 13. There must be a data acquisition or data entry problem.

11. "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).

11. "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

9 & 11 "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.

9 & 11 "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.

9 & 11 "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.

9 & 11 "Return to operator's labor, management, and equity capital < $10,000 or > $50,000."

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

9 & 11 "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 11) for accuracy, check to see if crop yields are high and/or a large number of crop acres per cow exists.

9 & 11 "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.

7, 9, & 11 "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.

7. "Debt to asset ratio < 0.3, = _____."

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

7, 9, & 11 "Cash flow coverage ratio < 0.8 or > 1.2."

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

7, 9, & 11 "Cash inflow = $n, cash outflow = $n, imbalance = $n"

These values are printed for all farms.

CROP EXPENSES

13. "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.

13. "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.

13. "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.

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

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

OTHER

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

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

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

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

APPENDIX A

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

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

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

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

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

Worksheet 1. Machinery and Equipment Purchased (page 1)

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

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

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

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

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

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

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

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

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

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

The next item is machinery and equipment depreciation as calculated for tax purposes. This value is used as the charge against the farm business for the use of the machinery and equipment complement. It is obtained by taking 1992 regular tax depreciation, excluding buildings and cattle from ACRS and MACRS depreciation. Including the Section 179 expensing allowance could bias depreciation upward. Excluding it could bias depreciation downward. Include it if used on a regular, ongoing basis. Exclude and convert to annual depreciation if used on an irregular, occasional basis.

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

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

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

a) There are more new items in the inventory book than listed as capital purchases.

b) New items were not depreciated this year or were valued at "list price" rather than at a value based on cost.

c) Trade-ins and other dispositions were not removed from book.

d) Machinery was revalued upward during the year and beginning inventory was not adjusted in the same direction.

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

a) New items were not all listed in inventory book.

b) Items acquired through trade were not valued correctly.

c) Items no longer in use were removed from end inventory or devaluated without corresponding changes to beginning inventory.

d) Machinery was revalued downward during the year and beginning inventory was not adjusted in the same direction.

Worksheet 3. Grown Feed Inventory Worksheet (page 2)

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

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

Screen 3. Feed and Supply Inventory (page 2)

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

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

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

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

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

Screen 4. Livestock Inventory (page 3)

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

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

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

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

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

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

Screen 5. Real Estate Inventory Balance (page 3)

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

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

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

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

c) Building depreciation from 1992 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 1992	*= 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 1992" would then equal $24,000.

The calculated value, "net cash amount received in 1992", is a cash inflow to the farm. If part or all of this was converted to nonfarm, include that amount as a "personal withdrawal and family expenditure" in Screen 13.

e) Beginning market value plus value added from real estate purchased, minus depreciation and the value of sales, equals total beginning value after changes.

f) End-of-year market value (net of estimated sale expenses) less the total beginning value after changes is equal to real estate appreciation.

Screen 6. Livestock and Business Description (page 5)

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

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

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

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

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

Screen 7. Labor Inventory (page 5)

Begin by identifying the operators of the farm. Operators should include all individuals who are integrally involved in the operation and management of the farm business. They are not limited to those who are the owner of a sole proprietorship or are formally a member of a partnership or corporation. In instances where a husband and wife operate and manage the farm as a team both may be included as operators. The labor input of each operator should then be specified in months. In most instances, this is 12 months but in some instances where one or more operators of the farm business have other work occupying their time, such as operating an off-farm enterprise, directing a farm organization or managing of the family; less than 12 months would be appropriate. In addition, for each operator, indicate their age, their years of education, and the estimated value of their management and labor input. This value should be based on what that person could earn in a similar capacity in similar employment. Any farm expenses for labor or 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. The measure of production of the roughages is the total tons of dry matter. The intermediate columns of total production and percent dry matter are used to assist in calculating the total tons of dry matter. Total production of all hay crops are divided into dry hay and hay crop silage. The total production of corn for grain, oats, and wheat should be reported on a dry bushel equivalent. Worksheet 5 is included on the opposite page for conversion of corn to a dry shelled basis.

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

After the acreages and production of the harvested crop enterprises have been reported, the acres of tillable cropland included in pasture and the acres of idle tillable cropland should be recorded. The total of all of the acres in each of these 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 <u>not</u> 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. Farm Family Financial Situation - Liabilities (page 7)

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 1992, and the planned payments for 1993. 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 11.

The "Amount of New Borrowings" column is optional input. If the amount of money borrowed in 1992 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 1992, use of the "Amount of Debt Refinanced" column will help you arrive at more accurate values for "Amount of New Borrowings" and "Actual 1992 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 <u>not</u> be included in the "Amount of New Borrowings" or the "Actual 1992 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 10 and interest expense, Screen 13), and enter the interest amount as money borrowed. Enter planned payments for 1993. 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 1992 (7th column) should equal the interest expense entered in Screen 13, page 11.

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 11.

See the footnotes at the bottom of page 7 of the check-in form for additional guidelines to completing this section.

Screen 11. Financial Leases (page 8)

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 11. 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 8)

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 9. 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, 1992) from the end of year balance (December 31, 1992) 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, 1992" in Worksheet 6 must equal the value in Screen 9, page 6 for "Accounts Receivable, December 31, 1992". The total of the column "Balance, January 1, 1992" in the worksheet must equal "Accounts Receivable, January 1, 1992" 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 9. See the bottom of page 8 of the check-in form for further guidelines to recording changes in accounts receivable.

Screen 12. Summary of 1992 Receipts and Changes in Inventory and Accounts Receivable (page 9)

Record the 1992 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 10 (advanced government receipts). Use Worksheet 6 on page 8 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 9 of the check-in form for further guidelines to recording the farm and nonfarm receipts.

Worksheet 7. Changes in Operating Accounts Payable (page 10)

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 11. If there are no operating accounts payable, do not use the worksheet, go directly to Screen 13 on page 11. 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 12/31/92" in Worksheet 7 must equal the value in Screen 10, page 7 for "Accounts Payable, December 31, 1992". The total of the column "Balance 1/1/92" in the worksheet must equal the value in Screen 10 for "Accounts Payable, January 1, 1992". 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 11. See the bottom of page 10 of the check-in form for further guidelines to recording changes in accounts payable.

Screen 13. Summary of 1992 Expenses and Changes in Inventory and Accounts Payable (page 11)

Record the 1992 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 10 to assist in the calculation of changes in accounts payable. The "Accrual Expenses" column is the total of the first three columns.

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

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

Enter all personal withdrawals and family expenditures in the space provided at the bottom of Screen 13. Do not skip this entry. It is necessary for the Annual Cash Flow Statement to balance and also for an accurate Cash Flow Coverage Ratio to be calculated. Include all cash withdrawals plus all additional nonfarm expenses paid with farm cash or from farm accounts, e.g., income tax, self-employment tax, life insurance, and wages of corporate owner-operators. Include withdrawals used for nonfarm loan payments, savings, and investments as well as family living expenses. Include borrowed capital used for nonfarm purchases, providing it has been entered as a nonfarm liability in Screen 10, page 7. 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 9, you must also exclude any family expenses paid from that income.

See page 12 of the check-in form for further guidelines to recording farm expenses.

Screen 14. Breakdown of 1992 Crop Expenses by Crop (page 13)

Record the breakdown of crop expenses for hay crop, corn, and other crops in Screen 14. The "Total" line at the bottom of the screen must equal the accrual expenses on Screen 13, page 11, for fertilizer and lime, seeds and plants, and spray and other. Calculate the accrual expense for these three crop expense categories on Screen 13 by totaling "Cash Amount Paid" + "Change in Inventory" + "Change in Accounts Payable". The "Change in Inventory" values are calculated from the beginning and end year inventory values in Screen 3, page 2 (beginning year - end year = change in inventory).

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

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.

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 1992
( )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 MACHINERY & 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 -_____
1992 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, 1992 Quant.	$ per Unit	Total Value	December 31, 1992 Quant.	$ per Unit	Total Value
GROWN FEEDS:						
Corn-HMSC	_____	$_____	$_____	_____	$_____	$_____
Corn-HMEC	_____	_____	_____	_____	_____	_____
Corn-dry, _____	_____	_____	_____	_____	_____	_____
Oats	_____	_____	_____	_____	_____	_____
Wheat	_____	_____	_____	_____	_____	_____
Other_____	_____	_____	_____	_____	_____	_____
Dry hay	_____	$_____	$_____	_____	$_____	$_____
Hay crop silage	_____	_____	_____	_____	_____	_____
Corn silage	_____	_____	_____	_____	_____	_____
Other_____	_____	_____	_____	_____	_____	_____
			Total ↓			Total ↓

FEED & SUPPLY INVENTORY							SCREEN 3. *Inventory Change*[1]
Total Grown Feeds			$_____			$_____	$_____
PURCHASED FEEDS:(use p.12 definitions)							
Dairy grain & conc	 x	.....	-$_____	 x	.....	-$_____	_____
Dairy roughage	.....	.....	_____	.....	.....	_____	_____
Nondairy feed	.....	.....	_____	.....	.....	_____	_____
SUPPLIES:							
Machine: Parts	 x	.....	-$_____	 x	.....	-$_____	$_____
Fuel, oil, grease	.....	.....	_____	.....	.....	_____	_____
Livestock: Semen	.....	.....	_____	.....	.....	_____	_____
Vet. supplies	.....	.....	_____	.....	.....	_____	_____
Other supplies	.....	.....	_____	.....	.....	_____	_____
Crops: Fertilizer	.....	.....	_____	.....	.....	_____	_____
Seeds	.....	.....	_____	.....	.....	_____	_____
Pesticides/Other	.....	.....	_____	.....	.....	_____	_____
Land/Bldg./Fence:	.....	.....	_____	.....	.....	_____	_____
Other:.....	.....	.....	_____	.....	.....	_____	_____
Total Feed & Supplies			$_____			$_____	

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

WORKSHEET 4. LAND & BUILDING PURCHASES & SALES

New Purchases & Capital Improvements				Sale Price
Description	Cost	Lost Capital	Description	/Amount Received
Land:_____	$_____	xxxxxxx	Capital Sales:	
_____	_____	xxxxxxx	_____	$_____
Total Land Purchases	$_____		_____	_____
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, 1992 Inventory			December 31, 1992 Inventory Using: 1/1/92 Prices			12/31/92 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 Lvstk.:								
.....	____	$____	$_____	____	$____	$_____	$____	$_____
.....	____	____	_____	____	____	_____	____	_____
Total Bulls & Other Livestock	....		$.....	....		$.....		$.....
Total Livestock	....		$.....	....		$.....		$.....

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

REAL ESTATE INVENTORY BALANCE SCREEN 5.

Land & Building Market Value: *Beginning* $_____ *End* $_____

New Real Estate:

Purchased:[1] $_____ + $_____ - $_____ = +$.....
land | bldgs./land imp. | lost capital | value added

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

Depreciation: from 1992 income tax (Include bldgs. in pre-ACRS, ACRS, MACRS & ADS) -_____

Real Estate Sold: *Total sale price* $_____
Sale expenses -_____
Net sale price -.....
Note/mortgage held by seller -_____
Net cash amt. rec'd. in 1992 =.....[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 11).

4

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.

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.
		__(2)O.S.	__(2)Dumping station	__(2)Partnership
Heifers (dairy)	_____	DHI#21_____	__(3)Pipeline	__(3)Corporation
Bulls	_____	__(3)Other	__(4)Herringbone par.	
Other:(type)	[_____]	__(4)None	__(5)Other parlor	Primary Financial Recordkeeping System
(# head)	w.u.[1]			
		Milking Frequency	Dairy Housing	__(1)ELFAC II
Lbs. milk sold _____		__(1)2x/day[2]	__(1)Stanchion/ Tie-Stall	__(2)Account Book
		__(2)3x/day[3]	__(2)Freestall	__(3)Agrifax Mail-in
Avg. milk plant test _____% B.F.		__(3)Other[4]	__(3)Combination	__(4)On-Farm Computer
				__(5)Other

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 Coefficient[6]	Total Tons Dry Matter
Hay Crop (1st cut acres only)		xxxxxxxxxxxxxxxxxx	xxxxxxxxxxx	xxxxxxxxxxx
Hay	xxxxxxxxxxxxxxx	tons		----------
Hay crop silage	xxxxxxxxxxxxxxx	tons		----------
Corn silage		tons		----------
Other forage harvested		tons		----------
Corn for grain[5]		dry sh. bu.	Tot. tn DM	----------
Oats		dry bu.		
Wheat		dry bu.		
Other:.....		[ ]w.u.[1]		
Tillable pasture	_____			
Idle tillable acres	_____			
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. [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, 1992[1]	*December 31, 1992*
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, 1992 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 8.

[4]Include any expenses that have been paid for in advance of their use. For example, 1993 rent paid in 1992. The total change in prepaid expenses (beginning year - end year) must be distributed among the proper expense categories in the "Change in Inventory or Prepaid Expense" column in Screen 13, page 11.

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

Name _____ [Proc. no. _____]

FARM FAMILY FINANCIAL SITUATION (continued) SCREEN 10.

LIABILITIES[1]						DEBT PAYMENTS			
Creditor (the first 12 characters will be used as input.)	Amount Jan. 1, 1992 ($)	Amount Dec. 31, 1992 ($)	Amount of New Borrowings ($)	Amt. of Debt Refinanced[2] ($)		Actual 1992 Pymts Principal ($)	Actual 1992 Pymts Interest ($)	Planned 1993 Amt. of Pymts. ($)	Planned 1993 Pymts. Per Year (no.)
Long Term Debt (≥10yrs.)									
_____	_____	_____	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		_____	_____	_____	___
Farm Credit Stock	$_____	$_____							
Short Term Debt - 1 year or less (borrowed to purchase capital items)									
_____	_____	_____	x_____	x		_____	_____	_____	___
_____	_____	_____	x_____	x		_____	_____	_____	___
Operating Debt (borrowed to buy items entered as expenses in Screen 13)								*net reduction planned in: oper. debt:*	
_____	_____	_____		.....			_____		_____
_____	_____	_____		.....			_____		_____
Accounts Payable[3]	_____	_____					_____	*accts. pay.:*	_____
Advanced Gov't Rec.[4]	_____	_____							
Total Farm Liab/Pymts	$_____	$_____	$_____	$ 0		$_____	$_____	*Total Nonfarm Pymts.*	$_____
Nonfarm Liab/Pymts[5]	$_____	$_____	$x_____x			$_____	$_____		
TOTAL LIAB/PYMTS (not including leases)	$_____	$_____	$_____			$_____	$_____		

[1]Farm Credit liabilities at beg. 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 payment as a negative amount; loan as a positive amount. Do not include in new borrowings or with principal payments.

[3]Accounts not paid (not money borrowed) for noncapital items/services. Accounts payable at beginning and end of year must agree with the totals in Worksheet 7, page 10.

[4]Include government payments received in 1992 that are for participation in the 1993 program, as the end year balance. Enter government payments received in 1991 for participation in the 1992 program as the beginning year balance.

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

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 11.

Leased item	*Amount of each payment*	*No. of payments in 1992*	*Total 1992 expense*	*No. of payments/ full year*	SCREEN 11. *No. of payments remaining*
Cattle:	$_____	_____	$--------	_____	_____
.....	_____	_____	--------	_____	_____
.....	_____	_____	--------	_____	_____
		Total	$-------- [1]		
Equipment:	$_____	_____	$--------	_____	_____
.....	_____	_____	--------	_____	_____
.....	_____	_____	--------	_____	_____
		Total	$-------- [2]		
Structures:	$_____	_____	$--------	_____	_____
.....	_____	_____	--------	_____	_____
.....	_____	_____	--------	_____	_____
		Total	$-------- [3]		

[1]Enter under "Cattle leases" on Screen 13, page 11.
[2]Enter under "Machine hire, rent, & lease" on Screen 13, page 11.
[3]Enter under "Real Estate rent/lease" on Screen 13, page 11.

WORKSHEET 6. CHANGES IN OPERATING ACCOUNTS RECEIVABLE

Account Number or Description	Balance Dec. 31, 1992	-	Balance Jan. 1, 1992	=	Change in Accounts Receivable
Milk Receipts:	$_____	-	$_____	=	$_____
_____:	$_____	-	$_____	=	$_____
_____:	$_____	-	$_____	=	$_____
_____:	$_____	-	$_____	=	$_____
TOTAL	$_____	-	$_____	=	$_____)
Must agree with:	(Screen 9)		(Screen 9)		(Screen 12)

Allocation (Option: go directly to Scr.12,p.9) Receipt Category	Change in Acct. Rec.
Milk	$_____
Dairy cattle	_____
Dairy calves	_____
Other livestock	_____
Crops	_____
Government receipts	_____
Custom machine work	_____
Gas tax refunds	_____
Other: _____	_____
——— 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 1993 check minus Jan. 1992 check).
2. Assign and allocate changes in accounts receivable to appropriate farm receipts using worksheet or go directly to Screen 12, page 9.
3. The total of the two "Change in Accounts Receivable" columns must equal "Total Change in Accounts Receivable" in Screen 12, page 9.
4. All accounts receivable should appear as assets on the balance sheet, Screen 9, page 6.

Name _____ [Proc. no. _____]

SUMMARY OF 1992 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.	$_____	xxxxxxxxx	$_____	$.....
Dairy Cattle	_____	$.....	_____	.....
Dairy Calves	_____	xxxxxxxxx	_____	.....
Other Livestock	_____	.....	_____	.....
Crops	_____	.....	_____	.....
Government Receipts	_____	.....[3]	_____	.....
Custom Machine Work	_____	xxxxxxxxx	_____	.....
Gas Tax Refunds	_____	xxxxxxxxx	_____	.....
Other: ..... $.....				
..... $.....				
..... $.....				
Total Other	_____	xxxxxxxxx	_____	.....
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 8 to calculate. [3]Change in advanced government receipts (beginning year - end year) calculated from values entered in Screen 10, page 7.

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 for loss or damage of crops.
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 11. Nonfarm income is necessary for the Annual Cash Flow Statement to balance, but it is not included when calculating farm profitability.
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.

Name _____ [Proc. no. _____]

WORKSHEET 7. CHANGES IN OPERATING ACCOUNTS PAYABLE

Complete only if you have operating accounts payable.

Account Number or Description	Balance 12/31/92	Balance 1/1/92	Change in Acct. Pay.
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
_____	$_____	$_____	$_____
TOTAL:	$_____	$_____	$_____
Must agree with:	(Scr. 10)	(Scr. 10)	(Scr. 13)

Allocation (enter totals on page 11)	
Expense Category	Change in Acct. Pay.
Hired Labor	$_____
Feed	
Dairy grain & conc.	$_____
Dairy roughage	_____
Nondairy feed	_____
Machinery	
Mach. hire & lease	_____
Mach. repairs & parts	_____
Auto expense(farm share)	_____
Fuel, oil & grease	_____
Livestock	
Replacement livestock	_____
Breeding	_____
Veterinary & medicine	_____
Milk marketing	_____
Cattle lease	_____
Other livestock expense	_____
Crops	
Fertilizer & lime	_____
Seeds & plants	_____
Spray, other crop exp.	_____
Real Estate	
Land, bldg., fence rep.	_____
Taxes	_____
Rent & lease	_____
Other	
Insurance	_____
Telephone (farm share)	_____
Electricity (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 11.
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 11.
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 10, page 7.
7. All accounts payable should appear as liabilities on the balance sheet, Screen 10, page 7.

Name _____ [Proc. no. _____]

SUMMARY OF 1992 EXPENSES & CHANGES IN INVENTORY & ACCOUNTS PAYABLE

See page 12 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 12)				
Dairy grain & concentrate	_____	.....	_____	.....
Dairy roughage	_____	.....	_____	.....
Nondairy feed	_____	.....	_____	.....
Machinery				
Machine hire, rent & lease	_____	x_____x	_____	.....
Machinery repairs & parts	_____	.....	_____	.....
Auto expense (farm share)	_____	x_____x	_____	.....
Fuel, oil & grease	_____	.....	_____	.....
Livestock				
Replacement livestock	_____	x_____x	_____	.....
Breeding	_____	.....	_____	.....
Veterinary & medicine	_____	.....	_____	.....
Milk marketing	_____	x_____x	_____	.....
Cattle lease/rent	_____	x_____x	_____	.....
Other livestock expense	_____	.....	_____	.....
Crops				
Fertilizer & lime	_____	_____[3]	_____	_____[3]
Seeds & plants	_____	_____[3]	_____	_____[3]
Spray, other crop expense	_____	_____[3]	_____	_____[3]
Real Estate				
Land, building, fence repair	_____	.....	_____	.....
Taxes	_____	x_____x	_____	.....
Rent & lease	_____	x_____x	_____	.....
Other				
Insurance	_____	x_____x	_____	.....
Telephone (farm share)	_____	x_____x	_____	.....
Electricity (farm share)	_____	x_____x	_____	.....
Interest	_____	x_____x	_____	.....
Miscellaneous	_____	.....	_____	.....
TOTAL OPERATING	$.....	$.....	$.....	$.....
Expansion livestock	$_____	x_____x	_____	$.....
Purchase of other stock & certificates (exclude Farm Credit stock)				$_____
Nonfarm Cash Expenses				
Personal withdrawals & family expenditures[4]				$_____

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

[2] Use Worksheet 7 on page 10 to calculate.

[3] Must calculate for completion of Screen 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 10, page 7. If any or all "Nonfarm Cash Income" has been excluded from the value entered in Screen 12, pg. 9, you must also exclude any family expenses paid from that income.

Guidelines for Recording This Year's Expenses

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 $600 and $2,000 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 insurance and registration for trucks used solely for farm purposes under machinery repairs and parts. An "auto", whether a pick-up or car, is a vehicle with a farm share and a nonfarm share; therefore, the farm expenses associated with these are entered as auto expense.

4. Milk marketing expenses include government assessments, milk hauling, milk promotion, and coop dues. Do not include capital assessments. Cattle lease expense includes cattle lease payments and cattle rent. Other livestock expenses include DHIC dues, cattle registration, livestock board, milk house supplies, and bedding.

5. Enter all the town, county, and school taxes paid on farm real estate. Exclude income and self-employment taxes. (Itemize corporate taxes under miscellaneous.) Sales taxes should be capitalized along with cost of improvement.

6. Enter all the fire and farm liability insurance paid on farm property. Exclude life insurance and personal health insurance. Enter employee health insurance under hired labor expense, truck/auto insurance as machinery expense, and crop insurance as other crop expense.

7. Enter the farm share of electricity and telephone expenses.

8. Include all real estate rent paid and any lease payments on structures. Identify taxes and insurance paid by the rentee as rent. Enter machinery lease payments under machine hire, rent or lease, cattle lease payments under cattle lease expense.

9. Include all interest paid on farm liabilities including finance charges. Make sure interest paid equals total farm interest, column 7, Screen 10, page 7.

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.

13

Name _____ [Proc. no. _____]

BREAKDOWN OF 1992 ACCRUAL CROP EXPENSES BY CROP

Crop	*Accrual Fertilizer & Lime*	*Accrual Seeds & Plants*	SCREEN 14. *Accrual Spray, Other Crop Expenses*
Hay crop (silage & dry)	$_____	$_____	$_____
Corn (silage & grain)	_____	_____	_____
All other crops	---------	---------	---------
Total	$---------	$---------	$---------

Totals above must equal accrual expenses in Screen 13.

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

Record the breakdown of crop expenses for hay crop, corn, and other crops in Screen 14. The "Total" line at the bottom of the screen must equal the accrual expenses on Screen 13, page 11, for fertilizer and lime, seeds and plants, and spray and other. Calculate the accrual expense for these three crop expense categories on Screen 13 by totaling "Cash Amount Paid" + "Change in Inventory" + "Change in Accounts Payable". The "Change in Inventory" values are calculated from the beginning and end year inventory values in Screen 3, page 2 (beginning year - end year = change in inventory).

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

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.

APPENDIX C

PROCEDURES FOR CALCULATING COST OF PRODUCING MILK

PROCEDURES FOR CALCULATING COST OF PRODUCING MILK -
1992 DAIRY FARM BUSINESS SUMMARY
FOR DARLA DAIRYMAN

		Example[1]
Total Accrual Operating Expenses	$263,842	
Plus: Expansion Livestock Expense	+20,000	
Accrual Operating Expenses Including Expansion Livestock		$283,842
Total Accrual Receipts	$343,954	
Less: Accrual Milk Sales	-282,015	
Accrual Receipts Less Milk Sales		- 61,939
Operating Cost of Producing Milk[2]		$221,903
Total Accrual Expenses		$319,462
Family Labor Unpaid		+ 12,150
Accrual Receipts Less Milk Sales		- 61,939
Total Cost of Producing Milk Excluding Operator's Labor, Management & Capital[3]		$269,673
Total Accrual Expenses		$319,462
Family Labor Unpaid		+ 12,150
Value of Operator's Labor & Management		+ 40,000
Real Interest on Equity Capital		+ 24,658
Accrual Receipts Less Milk Sales		- 61,939
Total Cost of Producing Milk[4]		$334,331

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

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

APPENDIX D

CREATION OF A CONFIG.SYS FILE

CREATION OF A CONFIG.SYS FILE

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

For example, on a hard disk you would type:

DIR C:\CONFIG.SYS and press return.

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

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

EDLIN CONFIG.SYS and press return

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

```
End of input file
*
```

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

```
*
      1:*FILES = 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.

NOTES

OTHER AGRICULTURAL ECONOMICS EXTENSION PUBLICATIONS

No. 92-17	Dairy Farm Business Summary Eastern New York Renter Summary 1991	Stuart F. Smith Linda D. Putnam
No. 92-18	State of New York/New Jersey Food Industry Wholesale Club Stores: The Emerging Challenge	Edward McLaughlin Gerard Hawkes Debra Perosio
No. 92-19	Where to find Information on the Food Industry A Researcher's Guide	Edward W. McLaughlin Sandy Freiberg
No. 92-20	Farm Income Tax Management and Reporting Reference Manual	George Casler Stuart Smith
No. 92-21	Agricultural Economics Publications July 1, 1991 - 3June 30, 1992	Dolores J. Walker
No. 92-22	Annual Cost of Investment in a Durable Asset Using Present Value Analysis	John Brake
No. 92-23	1991 Northeast Beef Farm Business Summary	Caroline Nowak Rasmussen Danny G. Fox Stuart F. Smith Ted C. Perry
No. 92-24	New York Economic Handbook 1993 Agricultural Situation and Outlook	Ag Ec Staff
No. 93-01	The Cornell Program on Dairy Markets and Policy Summary of Activities, 1989 to 1992	Andrew M. Novakovic