Staff Papers Series

INTRODUCTION TO FARM

RECORDS AND ACCOUNTING

by

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INTRODUCTION TO FARM
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Kent D. Olson

Why keep records? Perhaps this question is too simple! But if
we don't know the answer, a good record system and management information
system will never be developed.

Records should be kept so a manager knows where the farm is
financially, can show others financial information, and can make informed
decisions. To quote an old saying: "A farmer without records is like a
clock without hands--both run, but neither can tell you anything!"

This paper is presented to serve as a beginner's guide to farm
records and accounting and the process for choosing an accounting system
for farmers. In the first section, the concepts of data and information
are discussed and how those relate to records and accounting. The next
section looks at what records to keep. The terms and procedures for
double-entry accounting are introduced briefly in the next section. Then
the process of choosing and evaluating different accounting systems is
discussed. The final section includes some ideas for getting a farm
management information system started.

DATA VERSUS INFORMATION

Data is _not_ information! How many of us accept that statement? In one sense, data are disconnected numbers, pieces, or flotsam that have no meaning to the observer. However, information is processed data; it has intelligence value that communicates and is capable of changing behavior. Information is presented in an understandable form relevant to the current problem or decision. Data are just numbers!

We may think that data is information, but that confusion may lie in the fact that our mind can quickly process data, merge it with other already-known data, and produce information without our knowing it. For instance, is a corn yield of 45 bushels good or bad? If we already know that this farmer had half of his corn flooded out and had severe hail damage and rootworm problems on the rest, we would immediately know that an average yield of 45 bushels over all the acres was a good yield-- especially if the average yield in an average year was 90 bushels on this poor land. The data of a 45-bushel yield becomes information quickly when we can merge it with other data that we know already.

However, imagine the potential problems if the other data (i.e., weather) was not known. If this was a crop-share tenant farmer who reported the 45-bushel yield to an absentee landowner, but did not report the weather problems! For the landowner, the 45-bushel yield is just a number. Indeed, it may be misinformation because the landowner is expecting an average yield of 90 bushels and has received no data to change that expectation.

So, are farm records data or information? They are information (or provide information) if they are collected and organized intelligently

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to meet the needs of the business. Otherwise, farm records are just data, numbers, flotsam, etc.

Two other terms with which we should be familiar are bookkeeping and accounting. Bookkeeping is the mechanical routine of entering, adding, and moving data; unless the bookkeeper processes the data, he or she has no information. Accounting is the structured system and process of arranging data to provide information on the financial condition of the farm business.

Even an advanced, accurate accounting system will not provide all the data that a manager needs to make many decisions. That is why, in addition to accounting systems, managers need to develop management information systems. A management information system includes internal and external sources of data and allows that data to be modified and structured in different ways as different decisions need different sets of information.

Most accounting systems for farmers now make a large step towards a better internal management information system by storing physical quantity data with transactions instead of following the traditional method of including only the monetary amount. By this one step, accounting systems have come a long way from data towards information. If market trends and weather data were available, the farmer would be closer to a management information system which would allow for better information and decisions.

WHAT RECORDS SHOULD BE KEPT?

To keep the right records, a farmer needs to decide what decisions need to be made, what questions need to be answered, and what

other needs are present. How important is each of these questions and decisions? How much effort is the farmer willing to spend on record keeping? A record system should keep only those records which will be used, and they should be kept well enough to be useful. A record system that is complete, accurate, and kept in a useful format will be used and, thus, is beneficial to a farmer.

Before we look for the specific records that a farmer needs, let's consider how records are used. By considering these uses, we can design a better record system. Some common uses include using records as a:

    A.   Service Tool

        1.   Meeting legal requirements: Filing income tax, social security reports

        2.   Facilitating farm business arrangements: Family agreements, partnerships, corporations, leases, contracts, insurance

        3.   Maintaining and improving the credit profile

        4.   Estate planning

    B.   Diagnostic Tool

        1.   Identify strengths

        2.   Identify weaknesses

        3.   Control present operation

    C.   Indicator of Progress

        1.   Business

            Change in size, production, efficiency
            Compare actual performance with planned performance
            Compare actual performance with standards

2. Financial

   Change in financial condition of farm and family
   Compare actual with planned
   Compare actual with standards

3. Goals: Business, family and personal

D. Forward Planning in Both the Short and Long Term

1. Cash Flow

   Actual
   Projection
   Compare actual with planned

2. Budgeting

   a. Short range (within a production period)

      Scheduling operations, purchases, sales, payments
      Purchase an input or not
      Cost of alternative inputs
      Credit needs/repayment capacity

   b. Long range

      Enterprise choice
      Size of each enterprise
      Total size of the farm
      Contraction and expansion of the farm

After considering the decisions, questions and other needs--the
uses of records a farmer is ready to develop his/her own record management
system. To design an optimal record and management information system, a
farmer needs to analyze the benefits and costs of keeping the records.

The benefits of keeping data are better information for
decisions, more detailed information, quicker information, and other
improvements and uses. The costs of a record system may include a record
handbook, time to keep the records, computer hardware, record and
accounting software, CPA services, and other supplies and services. While
it is hard and perhaps impossible to quantify many of the benefits and some

of the costs, visualizing these benefits and costs can help design a record and management system which is best for an individual farm.

At one end of the information continuum, we can have too little data and, thus, have little or no information. At the other end of the continuum, we can have data that isn't used; that is, "dusty data." A record system that is useful will be somewhere in between these two extremes.

A new record keeper probably needs to have a record system that is less detailed and which provides less information than a more experienced record keeper. Starting simple is done so that a farmer will keep the data rather than become overwhelmed with the recordkeeping job. As a new record keeper gains experience and understanding, he or she can increase the detail and, thus, the information derived from a record system.

A typical set of records that would be included in a fairly complete system is listed in Table 1. The first six categories should be included in any whole-farm farm record system: inventory, depreciation and other tax information, income and expenses, government transactions, liabilities, and land records. Records for internal noncash transfers, enterprises, labor utilization, nonfarm assets and liabilities, and household and personal expenses should be addressed as they are needed for better information or required for government reports.

Enterprise records should be added to a record system as soon as possible. These records help answer three questions: what should be produced, how should it be produced, and how much of it should be produced. They can help identify strengths and weaknesses within each

enterprise on the farm. Enterprise records can also be used as an aid in decision making for diagnosis, forward planning, and marketing.

TABLE 1. A Typical Set of Records.

    A. Inventory

        1. Land and improvements
        2. Buildings, fences, tile and improvements
        3. Livestock and poultry: breeding and market
        4. Crops and feed: homegrown and purchased
        5. Supplies: fertilizer, chemicals, seed

    B. Depreciation and Other Tax Information

        1. Auto and truck (farm share)
        2. Power and machinery
        3. Irrigation equipment
        4. Livestock equipment
        5. Buildings, fences, tiling
        6. Livestock (breeding or draft)
        7. Investment credit record

    C. Income and Expenses

        1. Cash basis
        2. Accrual basis

    D. Government Transactions

        1. Set asides, acreage reserves, deficiency payments
        2. Loans and reserves
        3. Soil conservation, other

    E. Liabilities

        1. Current, intermediate, long-term
        2. Purpose/collateral
        3. Repayment terms: principal, interest, length

    F. Land

        1. Cropping records
        2. Rents received and paid
        3. Taxes paid
        4. Improvements

G. Internal Noncash Transfers

H. Enterprises (Crops and Livestock)

    1. Inputs and costs
    2. Production
    3. Sales
    4. Numbers, births, deaths, transfers, etc.
    5. Feed utilization

I. Labor Utilization (Farm and Enterprise)

    1. Operator and family
    2. Hired
    3. Social security and other taxes and insurance

J. Nonfarm Assets and Liabilities

K. Household and Personal Expenses

    1. Contributions to church and charity
    2. Medical and drug expense
    3. Taxes and other possible tax deductions
    4. Food and meals
    5. Clothing and clothing materials
    6. Operating and supplies
    7. Furnishings and equipment
    8. Personal care and spending
    9. Education and recreation
    10. Gifts and special events

The level of enterprise detail depends upon the decision being considered and the benefits and costs of keeping those detailed records. For example, a dairy farmer needs to keep separate records for the milking herd and raising replacement heifers so that it is possible to see whether replacements should be raised or the calves sold as calves and the replacements bought shortly before entering the milking herd.

By keeping household and personal accounts, a farm family can observe the level and distribution of personal spending among the budgeting categories. This information could wake them up to how they spend their money. As one farmer said, "I don't drink as many beers at the bar when I

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know I have to record how much I spend and where I spend it." Household

and personal accounts also serve as a record for personal tax deductions.

If the farm and family finances are in the same checking account, these

accounts provide the ability to check the cash flow accuracy and, thus, the

accuracy of the entire record system. They can help interest all family

members to keep good records and be interested in what the records can tell

us.

DOUBLE-ENTRY ACCOUNTING

Now, after we've looked at uses and types of records and before

we look at the specific accounting systems available, let's look at that

often misunderstood method called double-entry accounting.

As a first step, let's look at an example from a corn grain

inventory. Suppose our records show that in late September we estimate

that we have 10,000 bushels of unharvested corn in the field, no corn in

the bin, and we haven't sold or fed any corn this year. We can set up our

accounts to look like the first column in Table 2--which shows a balance of

10,000 bushels.

Table 2. Double-entry Grain Inventory Example

	Late Sept.	Early Oct.		Late Oct.		Early Nov.	
Corn in Field	10,000 bu.	-10,000	= 0		= 0		= 0
Corn in Bin	0	+10,000	= 10,000	-5,000	= 5,000	-2,000	= 3,000
Corn Sold	0		= 0	+5,000	= 5,000		= 5,000
Corn Fed	0		= 0		= 0	+2,000	= 2,000
BALANCE	10,000		10,000		10,000		10,000

In early October when we harvest the corn, the inventory records need updating by using offsetting transactions. In the "Corn in the Field" account, a decrease of 10,000 bushels is entered. In the "Corn in Bin" account, an increase of 10,000 bushels is entered. Ignoring harvesting inefficiencies and field losses, we see the balance is still 10,000 bushels.

The transactions needed to record the sale of 5,000 bushels in late October and the feeding (or transfer to the feed account) of 2,000 bushels are also shown in Table 2. These simple transactions are a "double-entry" system.

One way to differentiate between double- and single-entry accounting systems is the type of entry used. In a double-entry accounting system, two offsetting entries are made for each transaction. A single-entry system requires only one entry per transaction. Some single-entry systems utilize "two entries" for whole-farm and enterprise records (The Account Book, for example), but these are not double-entry systems because they are not offsetting entries in different accounts. In computerized double-entry systems, the user usually enters the number once at the keyboard and tells the computer program to enter the value in two offsetting accounts.

These offsetting entries are called a debit and a credit in accounting terminology. In everyday, common usage, a debit is something negative and a credit is something positive; however, not so in accounting. In accounting, a debit refers to a value placed on the left side of the "T account" and a credit is a value placed on the right side. To credit an account means to place a value on the right side of the "T account"; it may

be either an increase or a decrease. To debit an account means to place a value on the left side; it may be either an increase or a decrease.

Today, some computer programs are avoiding the terms of credit and debit. These programs need some work in the installation step, but generally, you can use them without understanding the debit/credit terminology. They are still double-entry systems.

To understand double-entry accounting, let's look at how it originally developed, how the terms are used, and how the values are entered and moved around.

When accounting started to develop, the balance sheet (or net worth statement) was the most important financial statement. The general format is the same now as it was then (Figure 1). From this format, we have three main types of accounts:

1. Assets
2. Liabilities
3. Capital

Asset accounts include cash, savings, livestock, machinery, land, buildings, and other items which the business owns and could be sold or converted to cash. Liability accounts include accounts payable, loans, and other commitments against the assets of the business. Capital accounts include the familiar owner's equity, as well as other types such as net income, withdrawals, and other accounts.

Figure 1.   The general format of the balance sheet.

```
                       BALANCE SHEET
              Assets       |     Liabilities
                           |     Capital Accounts
                           |
              Total Assets | Liabilities + Capital
```

In double-entry accounting, the balance sheet is a true
"balance." The values of the asset, liability, and capital accounts are
derived as part of the process.   If the sum of the liability accounts and
capital accounts is equal to the sum of the asset accounts, then the
financial statement is said to "balance."   In single-entry systems, the net
worth is defined as the total asset value minus the total liabilities; to
turn around and add net worth and total liabilities to see if it "balances"
with total assets seems to be redundant.

Anyway, early accountants would use T-accounts to separate
entries that increased or decreased individual accounts.   A "T-account" is
a large "T" with the account name written on top and entries written on the
left and right of the "T"; some examples are in Figures 2 and 3.   Since
they didn't have computers, this separation helped them speed up their
account balancing.

In order to decide which side of the T-account to put increases
or decreases, accountants referred back to the balance sheet.   Since asset
accounts (e.g., machinery) came from the left side of the balance sheet,
they decided that the balance and any increases should go on the left side
(i.e., debit side) of the T-account and decreases on the right side (i.e.,
credit side) (Figure 2).   Since liability (e.g., bank loans) and capital
(e.g., equity) accounts are on the right side of the balance sheet, they

decided that the balance and any increases should go on the right side
(i.e., credit side) of the T-account and decreases should go on the left
side (i.e., debit side). Thus, we see that the accounting terms debit and
credit are not identical with increase and decrease nor positive and
negative. Those are the rules and too many play the accounting game for us
to change the rules now.

Income and expense accounts are treated as temporary capital
accounts; they may also be called "minus" or "contra" capital accounts.
Since income is an increase in equity, the balance and increase side of the
income T-account is on the same side as the equity account: the right or
credit side (Figure 2). Expenses are decreases to equity so the balance
and increase side is opposite of the equity account: the left or debit
side.

Figure 2. Determining which side of the T-account is an increase and
           which is a decrease.
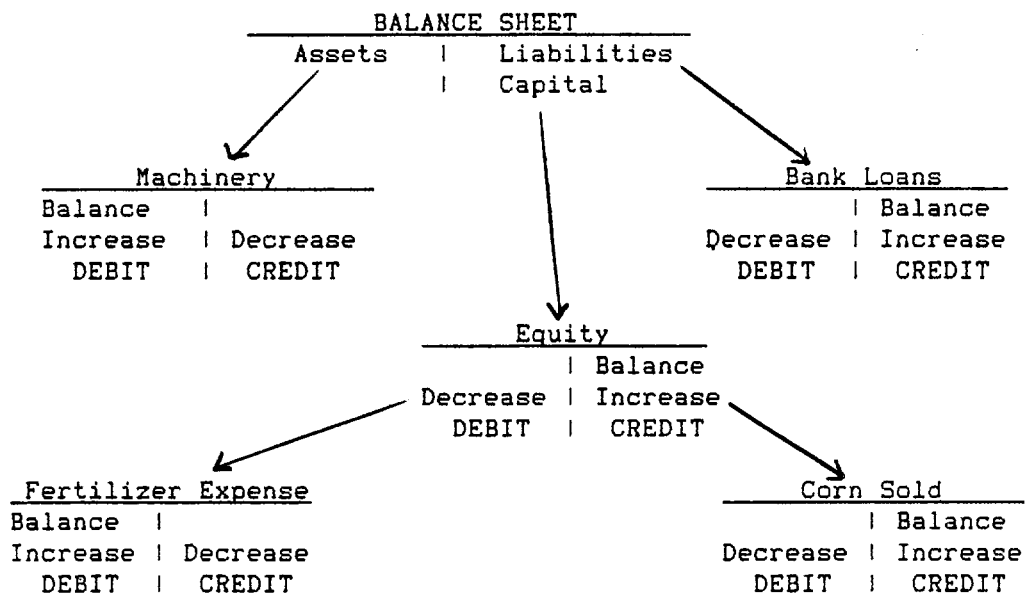
For some experience with double-entry accounting in a hand system, let's follow some simple transactions.

Example 1

Suppose we borrow $20,000 from a bank, place that money in an account, and then buy a tractor from a local dealer. The accounts that would be affected are: cash, bank loan, and machinery. In this example, there are two transactions: receiving the cash and indebtedness, and paying cash and receiving a tractor.

In the first transaction, our cash account is increased and since it is an asset account, the $20,000 is placed on the left or DEBIT side (Figure 3). The bank loan account is also increased, but since it is a liability account, the $20,000 is placed on the right or CREDIT side.

Two points to note in this transaction. Here we see one DEBIT and one CREDIT; thus, we have offsetting entries for this transaction even we have two increases. The decreases are written without a negative sign; the side and type of account determine what is a decrease or an increase.

In the second transaction, our cash account is decreased so that the $20,000 is placed on the right or CREDIT side. The receipt of the tractor increases the machinery account so $20,000 is placed on the left or DEBIT side.

If the bank had made the check out to the dealer and not deposited it in our account, we would have only one transaction. In this case, the bank loan account would be increased (i.e., CREDITED) by $20,000 and the machinery would be increased (i.e., DEBITED) by $20,000.

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Figure 3. T-accounts for example 1: Tractor loan and purchase.

    A. Receipt of loan:

Account:	Cash	Bank Loan
Action:	Increase	Increase
Account Type:	Asset	Liability
Entry Side:	DEBIT (left)	CREDIT (right)
	20,000 I	I 20,000

    B. Pay for and receive tractor:

Cash	Machinery
Decrease	Increase
Asset	Asset
CREDIT	DEBIT
I 20,000	20,000 I

Example 2

Suppose one of our corn bins is destroyed by a windstorm. The bin was worth $5,000 on our books, but we received an insurance payment of only $4,000. In the first transaction, the buildings account is decreased by $5,000 as is our owner's equity account (Figure 4). In the second transaction, our cash account is increased by $4,000 and our owner's equity account is increased by $4,000. By evaluating the entries in the owner's equity account, we see the $1,000 net loss, as expected.

Figure 4.   T-accounts for example 2: Loss of and indemnity payment
            for corn bin.

        A.   Loss of building in windstorm.

Buildings	Owner's Equity
Decrease	Decrease
Asset	Capital
CREDIT	DEBIT
┃ 5,000	5,000 ┃

        B.   Receipt of insurance payment

Cash	Owner's Equity
Increase	Increase
Asset	Capital
DEBIT	CREDIT
4,000 ┃	┃ 4,000

Example 3

Earlier, we bought some feeder cattle for $4,000. At that time, we entered them into our cattle inventory account and decreased our cash account.

Now, we sell them for $10,000. The sales transaction increases cash by $10,000 and increases cattle sales (an income account) by $10,000 (Figure 5). To incur the cost of the inventoried cattle, we decrease our cattle inventory by $4,000 and increase expenses by $4,000. The step of inventorying the cattle is done to delay the expensing until the cattle are sold.

Figure 5. T-accounts for example 3: Sale and expensing of feeder cattle.

A. Sale of cattle and receipt of $10,000

Cash	Cattle Sales
Increase	Increase
Asset	Income
DEBIT	CREDIT
10,000 |	| 10,000

B. Incur cost of "inventoried" cattle

Cattle Inventory	Cost of Cattle
Decrease	Increase
Asset	Expense
CREDIT	DEBIT
| 4,000	4,000 |

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<u>Example 4</u>

To feed these cattle, we need to buy feed, inventory it, and pay
the feed account at the local elevator. In the first transaction, we buy
$1,000 of cattle feed "on account" and list it in our cattle feed inventory
(Figure 6). The second transaction is to move the feed inventory over to
the feed expense account as it is fed. (These two transactions could be
combined into one by skipping the feed inventory account if the inventory
detail is not needed.) The third transaction is to pay $1,000 on the feed
account from cash.

Figure 6.   T-accounts for example 4: Cattle feed purchase and payment.

A.   Buy $1,000 of cattle feed on account

Cattle Feed Inventory	Feed Account
Increase	Increase
Asset	Liability
DEBIT	CREDIT
1,000 l	l 1,000

B.   Feed $500 of inventoried feed to cattle

Cattle Feed Inventory	Feed Expense
Decrease	Increase
Asset	Expense
CREDIT	DEBIT
l 500	500 l

C.   Pay $1,000 on feed account

Cash	Feed Account
Decrease	Decrease
Asset	Liability
CREDIT	DEBIT
l 1,000	1,000 l

These examples are very simple. They do not include small
changes and items that occur in each of the transactions listed. They do
not show everything that one needs to know in order to be a double-entry

accountant. However, they do provide an idea of how double-entry
accounting works and what these terms mean.

Another thing that any accounting system needs is a "Chart of
Accounts." This is merely a list of accounts taken from the balance sheet,
income statement, and other sources such as personal categories.
Each accounting system will have its own account numbering system and may
use letters in that system also.

CHOOSING A FARM RECORD SYSTEM

How does a farmer choose a farm record system? This question
should be viewed as very similar to how a farmer chooses a tractor.

The farmer needs to:

1. Examine the objectives of the farm business in both the
   record system and the tractor choice.

2. Decide what you want and need from a record system and
   from a tractor. .

3. Scout what's available in alternative record systems
   and tractors.

4. Determine the capabilities of each alternative.

The next step is to assess the benefits and costs of each
alternative--whether it's for the tractor or the record system decision.
How well does each alternative meet the needs and objectives of the farm?
What are the costs of meeting those needs and objectives? What are the
benefits?

Types of Accounting Systems

Benefits and costs will vary by type of accounting system. There are three basic types:

-- Hand systems
-- Central computer systems
-- On-farm computer systems

Hand systems include various record books available from universities and other institutions. Examples are The Account Book from the University of Minnesota, Managing Your Financial Future from the University of Wisconsin, and the Ag Base Account Book from Farm Credit System. These are all single-entry accounting systems, but differ in page format and whether they are organized in a checkbook form or in an enterprise format. Hand systems have the advantage in that they are very cheap in initial cost. However, they are very poor in mid-year analysis (unless special effort is made), and year-end analysis is slow to accomplish. Some double-entry systems are still hand systems, but very few are readily available for direct use by farmers.

Central computer systems include both mail-in and take-in systems. Examples include Farm Bureau's "Freddie Computer", Farm Credit System's "Agribase", and the Iowa Farm Business Association's "Monthly Accounting and Reporting System (MARS)." These do cost more than a hand system, but information is available on a monthly basis and year-end analysis is done quickly.

Many banks, FCS, and other credit institutions have these centralized systems. The advantage is that they have experience at interpreting the reports and information. The disadvantage of the bank systems is a potential loss of privacy; as one farmer said, "They know

enough about me already, so I'll go elsewhere for accounting assistance."

The on-farm computer systems are the most expensive, but can provide management information very fast. Besides the basic general ledger capabilities, many options are available for inventory control, payroll, checkwriting, enterprise analysis, etc. Examples of these systems include: Farm Business System's "Transactions Plus"; Red Wing's "General Ledger"; Harvest Computer Systems' "Horizon" and "Farm L Pro"; Farm Management System's "Financial Manager"; Datasphere's "Terra Accounting System"; Great Plains' "Crop and Livestock Accounting"; Specialized Data Systems' "Farm Accounting & Records Management"; "The Reaper" and others.

Some of the central computer systems are using programs designed for direct farmer use on microcomputers. The farmers prepare their monthly transaction data and send or take it to the central processor. For farmers who understand the process and like working with numbers, this may be a potential source of off-farm income. Having a recordkeeper who understands agriculture (and may be familiar with each operation) can be very valuable.

However, an argument against centralized systems is that if farmers "keep the books" themselves, they seem to pay more attention to costs and how to control costs.

Rating Accounting Software

There are many accounting systems available for farmers. The process of getting to know each alternative is a lengthy process, and then the decision still needs to be made. There have been many attempts to help simplify this process.

A recent issue of Doane's Agricultural Computing included the ratings of several programs currently available (Table 3). Doane's says

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that the ratings' increase between 1985 and 1986 may be due to a user's better knowledge of the system and that the decrease in the number of respondants may be due to the way in which the question was asked in 1986.

Table 3. Agricultural Accounting Software Ratings

	1986		1985	
	#	Rating	#	Rating
FBS Transaction	76	4.2	114	4.1
Red Wing GIL	69	3.9	107	3.7
FMS Financial Mgr.	63	4.0	111	4.0
Harvest Horizon	38	4.5	60	4.25
Datasphere Terra	30	4.25	11	4.45
Harvest Farm L-Pro	29	4.5	5	4.5
SBCS, Inc. Agrilgr	22	4.1	38	4.1
AgDisk Accting	21	3.3	27	3.55
Great Plains Acct	11	4.0	--	--

Rating Scale: 1 to 5

Source: Doane's <u>Agricultural Computing Newsletter</u>, September 1986.

This is a good source of comparative ratings, but it does have drawbacks. What does a 1 to 5 score mean? Individuals probably rated only one package, so how can the ratings be compared? On a scale of 1 to 5, how do we know that a person who gave one system a "3" would give a lower rating to another system which received a "4" from someone else.

In an effort to obtain a more objective rating of those systems available, I have prepared an "Evaluation Form for Farm Accounting Systems" (Appendix B). This form lists accounting and software features as yes/no (or true/false) statements. The person who is rating a system will indicate either yes or no (or true or false) for each feature and then calculate the percentage of yes or true responses.

The features are arbitrarily divided between general, required, and desired features. The general features are those which should be in the program or available to the user. The required features are those items which are critical to a basic, beginning accounting system; if the program does not have one of these features, it has a serious deficiency. The desired features are those which are not critical to a "bare bones" accounting package, but complement the basic system in their use of the data already present.

The main advantage of this form is its transportability between people. The statements on this form are written as objectively as possible to allow different people to come up with the same rating for the same problem.

This form does not provide the final answer to a farmer. There are many features that are subjective in nature. For example, the screen format of one system may be preferred by one person; but another person prefers another screen format. An objective form cannot capture these features very well. However, the list of features should help a farmer narrow the list of software that s/he needs to personally test before making a decision.

Some users may feel that the features listed as "desired" in the form are "required" for their operation. To adopt this form to specific situations, two blank lines are provided in the "Ratings" section. A user may regroup the features into their own categories and use these lines to calculate their personalized rating system.

This form is still in the draft stage. (The form in Appendix B is updated from the one I handed out at the meetings.) Further work and explanatory material will be developed for the evaluation form.

STARTING A FARM MANAGEMENT INFORMATION SYSTEM

Now that we know "everything" about data, information and double-entry accounting and we've chosen what records we need and what accounting system to buy, we need to start keeping records. But how? Here are some ideas on filing, developing a system, and what it takes to be a good record keeper.

Filing Systems

A good accounting system is worthless if the data needed is not available, lost, or of poor quality. The numbers need to come from somewhere! A good filing system may be the first step needed before any more work on a record system can be done.

There are several types of filing systems being used today. Do you recognize yours?

1. Pitch and Regret!

>   The attitude here is: if we don't need it now,
>   we don't need to keep it. Later, we realize that
>   we do need it, but we've thrown it away.

2. Tuck and Seek!

>   We know we need to save it, so we put it in a
>   safe place which is then forgotten. Then when we
>   need it, we spend considerable time searching for
>   it and maybe we're successful.

3. Pile and Dig!

>   We may sort and throw, but mainly we just put
>   everything in a pile and keep piling. Then when
>   an item is needed, we dig because "it's in there
>   somewhere!"

4. Sort, File and Find!

>   The first step is to sort. The second is to file
>   in an organized fashion. The third is to make
>   sure the first two steps are done. Then when
>   something is needed, little time is wasted because
>   the item is where it should be.

A very good publication that will help farmers (and all of us) to improve our filing systems is Put Paperwork in Its Place: A Quick and Easy Guide to Farm Filing by Jorgensen, Anderson, and Geiken. It is published by Wallace Homestead Book Company (580 Water's Edge Road, Lombard, Illinois 60148). Obviously, they support the fourth type of filing system.

A brief summary of their ideas on filing (and a few of mine) are:

1. Sort the mail and other material as it comes into the office into:

-- junk that can be thrown away NOW!

-- catalogs and other reference information

-- bills to be paid

-- items that need action soon

-- other items that need to be filed

-- personal mail

2. Physically separate your files into six categories:

-- Action files, such as bills to be paid and other items that need something done soon.

-- Monthly files to keep current receipts, bills, and other business items for the current year.

-- Yearly files to keep all records from a single year together and not mixed with other years.

25

-- Historical files for yearly records that are not
   needed near the office, but may be needed for IRS
   audits and similar events.

-- Permanent files for contracts, deeds, tax returns, and
   other items which should be kept on a permanent basis, but
   are not needed on a daily basis.

-- Reference files are for articles, extension publications,
   other items that are not part of the financial records,
   but are needed for management decisions.

There are some guidelines as to how long records need to be kept.

The authors of Put Paperwork in Its Place have their own (Figure 7). The

IRS says that the last three tax years are open for our amending and their

auditing. However, if the IRS suspects fraud, they can go back for as many

years as needed. So the guidelines of keeping tax records for three, five,

or seven years have no legal background and are only guidelines. The new

tax law says investment tax credits can be carried back 15 years!

Starting a System

Establishing a management information systems doesn't happen

overnight. A new recordkeeper needs to start with a simple process and

gradually increase the complexity and procedures used. An example of a

transition process starts with keeping records and preparing the tax return

and gradually adding summarization, comparison, tax management,

planning, projection, and financial control (Figure 8). This transition

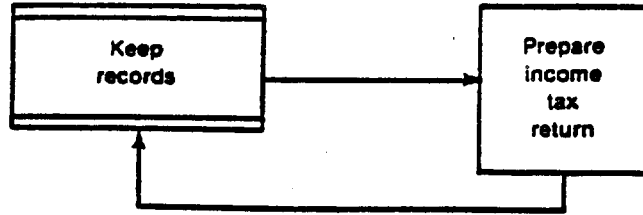may take several years and it may not need to be done by all farmers.

How Long Should Farm Records Be Kept?

Guidelines for Keeping Farm Records	Years to be retained after closing date

Cash Records
Bank statements .... 5 years
Duplicate deposit slips .... 3 years
Bank reconciliations .... 3 years
Cancelled checks .... 5 years
Drafts paid .... 3 years

Sales Records
Cash receipts journal or sales journal .... 5 years
Sales invoices .... 5 years
Sales correspondence .... 3 years
Sales tax returns .... 5 years

Disbursement Records
Cash disbursements journal or
    purchase journal .... 5 years
Expense account analysis .... 3 years
Employee travel expense reports .... 3 years

Payroll Records
Payroll tax returns .... 5 years
Individual employee earnings records .... 6 years
Time card and time sheets .... 3 years
Payroll journals .... 5 years

General Ledger .... Permanent

Financial Statements
Year end audit reports .... Permanent
Monthly statements and other
    internal financial reports................... 3 years

Corporate Records
Certificate of incorporation .... Permanent
Charter and bylaws .... Permanent
Stockholders' records .... Permanent
Minutes .... Permanent

Federal and State Income Tax Returns .... Permanent

Inventories
Year end listings, cost records, etc. .... 3 years

Retirement Plans
Participants' accounts .... Permanent
General ledgers and financial statements .... Permanent
Correspondence, etc. .... 5 years
IRS approval letter .... Permanent

Other Records
Deeds .... Permanent
Contracts, agreements, and leases .... 20 years after termination
Cancelled notes and mortgages .... 6 years after cancellation
Law correspondence .... 20 years
Fixed asset records .... Permanent

These are a few guidelines for keeping farm records. Consult your accountant, attorney, or business manager if you have any specific questions.

SOURCE: "Putting Paperwork in Its Place," p. 17.

FIGURE 7. GUIDELINES FOR LENGTH OF TIME TO KEEP RECORDS.

Keep records → **Prepare income tax return**

Step One

Keep records → **Prepare income tax return** → **Summarize records** → **Compare progress**

Step Two

Keep records → **Summarize records** → **Compare progress** → **Prepare cash flow projections for next year**

Prepare income tax return

Practice tax management

Prepare farm plan for next year
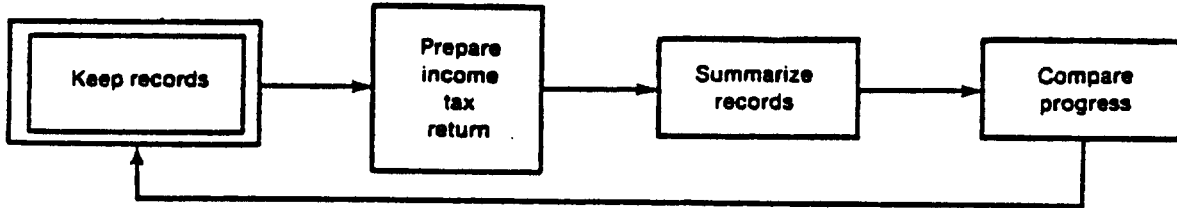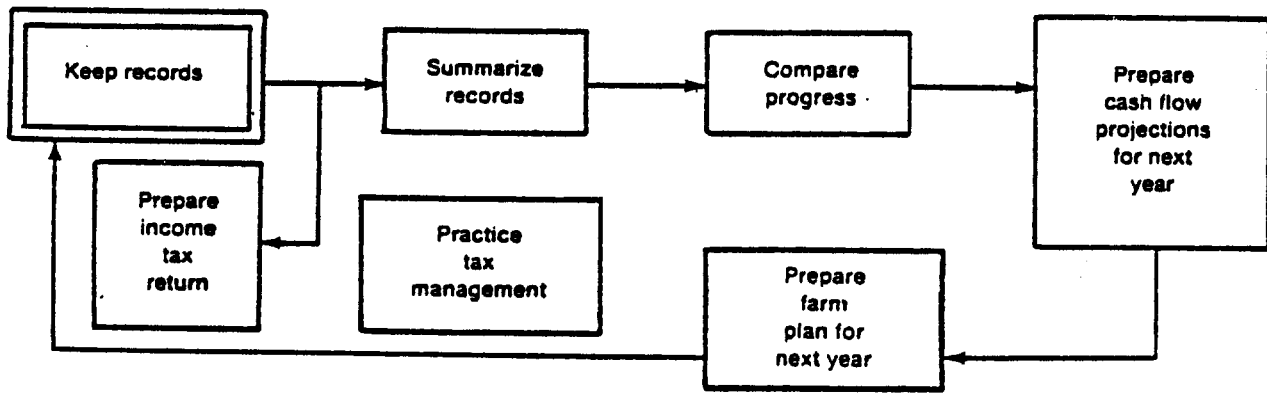
Step Three

FIGURE 8.   AN EXAMPLE OF A TRANSITION PLAN FROM A SIMPLE
TO A COMPLEX INFORMATION SYSTEM.
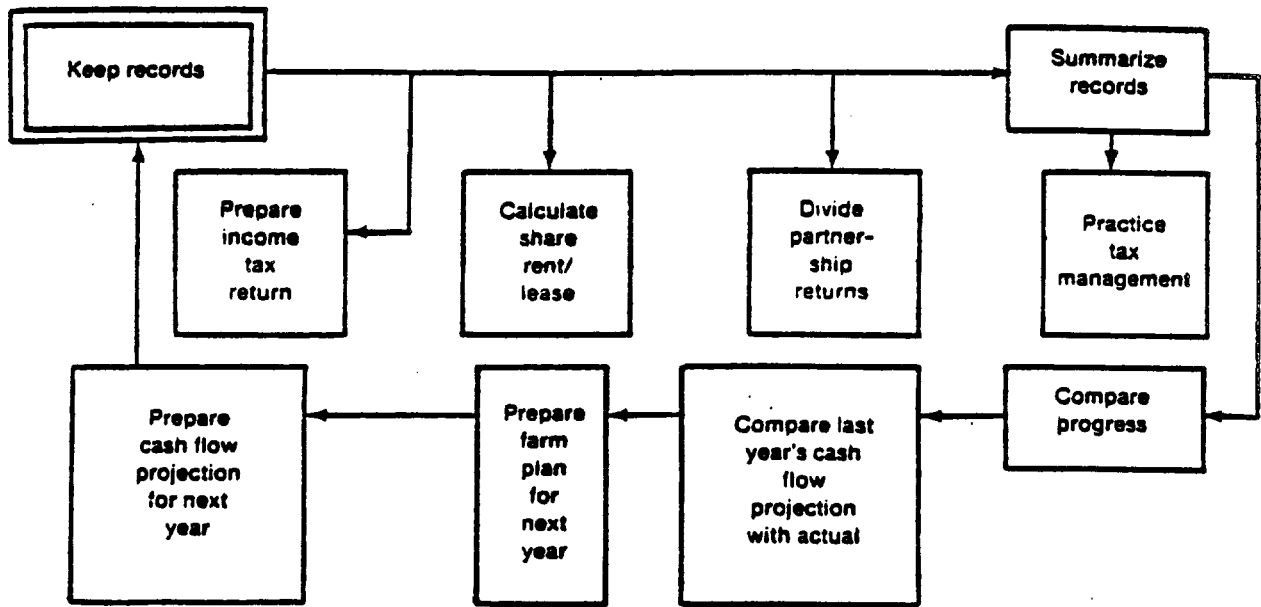
Step Four
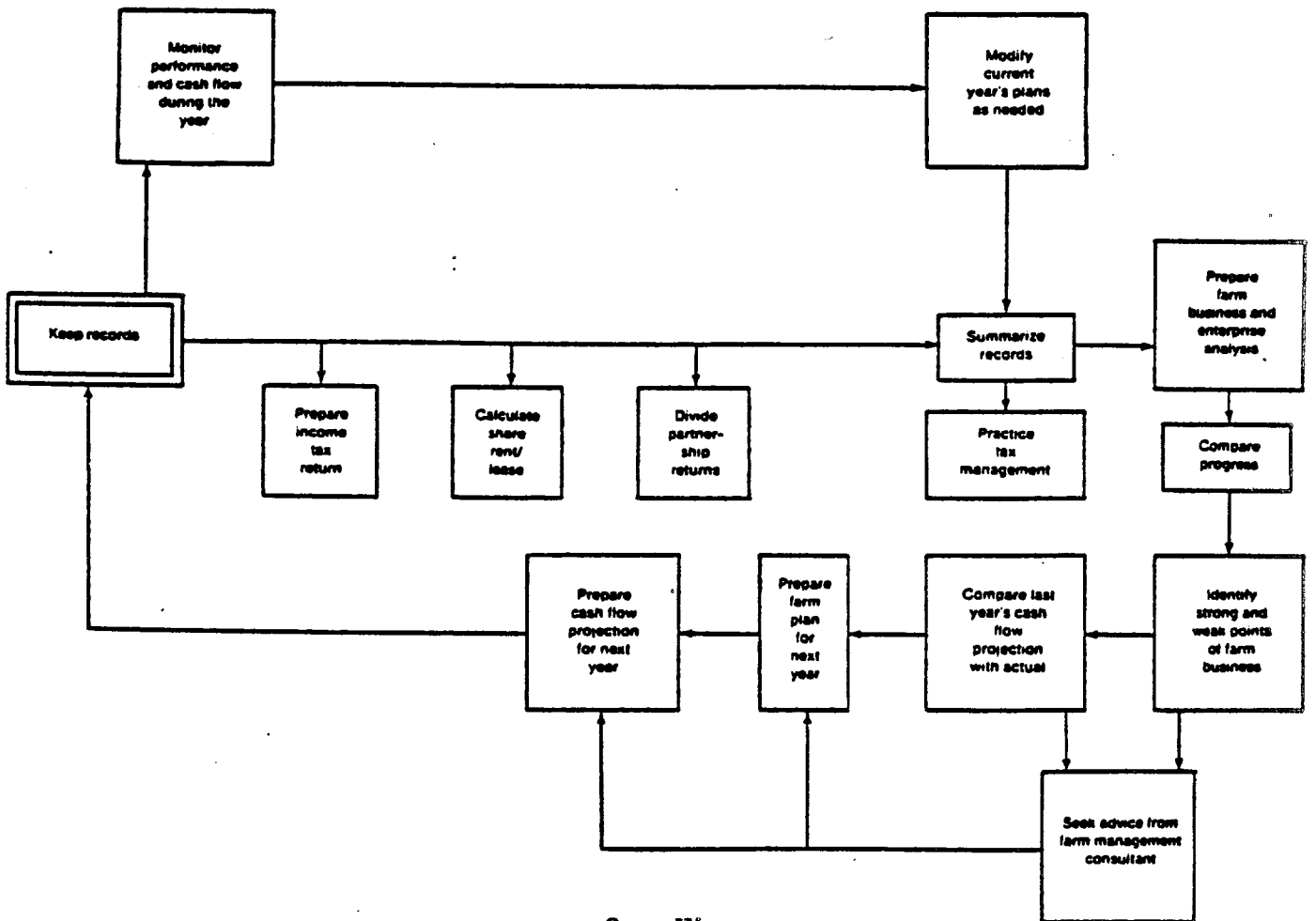
Step Five

FIGURE 8.   CONTINUED

Attributes of Record Keeper

A last point: For a farmer (or any person) to be a good record keeper, s/he needs to have:

-- Interest in the process and results of record keeping.

-- Motivation to keep good records.

-- Attention to detail.

-- Knowledge of how records will be used.

-- Ability to develop good record keeping habits.

-- Ability to follow directions.

If a farmer doesn't fit these characteristics, should s/he keep records or hire someone else to do it? The value of the records is greatly less if the quality is low. So if a person can't or won't keep high quality records, someone else should be hired to keep records. But the farmer still needs to have a good filing system so that information is not lost.

SUMMARY

In this paper, I have discussed some beginning concepts for understanding records and accounting and how farmers can use them. The process of setting up a record system and choosing an accounting system have been discussed also. I hope that these ideas help you in your work.

APPENDIX

Evaluation Form for
Farm Accounting Software

I. General Information

    A. Name of System: _____
           Version: _____
           Years Available: _____ (this & earlier versions)
           Price: _____

    B. Minimum Hardware Requirements:

           Brand (e.g., IBM, Apple):   _____
           RAM Memory: _____
           Disk Drives: _____
           Printer: _____

    C. Company: _____

        Contact: _____
        Address: _____
                  _____
                  _____
                  _____
                  _____

        Phone: (_____) _____ - _____

    D. Vendor: _____

        Contact: _____
        Address: _____
                  _____
                  _____
                  _____
                  _____

        phone: (_____) _____ - _____

        Years vendor has been in operation: _____
        Distance from farm to vendor: _____
        Amount of intial training by vendor: _____
        Type of backup support provided by vendor: _____

    E. Evaluated by: _____
           Date: _____

F. Training, Support and Instructions

        Initial training is provided by Company: yes   no   cost?
        Backup support is provided by Company: Y   N   cost?
        A toll-free phone number for support is available: Y   N
        Company updates system for new tax laws: Y   N   cost?

        The manual:
        a. Includes separate, step-by-step instructions
            for beginners: T   F
        b. Includes separate, abbreviated instructions
            for experienced users: T   F
        c. Shows a "picture" of the screen and describes
            the steps needed to reach this screen: T   F
        d. Correctly describes what the program
            writes on the screen: T   F
        e. Has very few spelling mistakes: T   F
        f. Has very few grammatical mistakes: T   F
        g. Is reproduced by a high-quality method: T   F
        h. Uses color to highlight points: T   F
        i. Is indexed by subject and command: T   F
        j. Includes a glossary: T   F

        System includes a tutorial: Y   N
        System provides a set of sample transactions
        and uses for typical situations: Y   N
                How many? _____
        A set of sample data is provided: Y   N
        System provides trouble-shooting guide: Y   N

G. Type of Accounting

        System provides for cash accounting: Y   N
        System provides for accrual accounting: Y   N
        System provides for single entry accounting: Y   N
        System provides for double entry accounting: Y   N
        System provides for partial double entry
         accounting: Y   N

H. Special Considerations

        System allows for user-specified fiscal year: Y   N
        System allows for multiple profit centers: Y   N
        System allows for multiple landowners & tenants: Y   N
        System allows for multiple operators: Y   N
        System provides for the separation of
                business and personal transactions: Y   N
        Are individual transactions saved and not
                destroyed after posting: True   False

2

I. Ease of use and error correction

   1. Accounts and naming
         A typical farm chart of accounts
               is provided   Y   N
         This account list can be modified   Y   N
         The account codes can be alphanumeric   Y   N
         Accounts can be structured or
               tied together   Y   N

   2. Worksheets are provided to write the
         beginning installation information   Y   N

   3. When entering cash transactions:
         The "balance" of the transaction to be
               allocated is shown   Y   N
         There can be multiple income accounts   Y   N
         There can be multiple expense accounts   Y   N
         The transaction needs to balance before
               the system allows you to proceed to
               another transaction   Y   N
         Expenses are entered without a
               negative sign   Y   N
         A list of accounts can be obtained
               on the screen   Y   N
         A list of vendors can be obtained
               on the screen   Y   N
         Primary vendors can be attached
               to accounts   Y   N

   4. On-line help is available within
         the program   Y   N

   5. Menus:
         a. Are used to access the different
             parts of the program   Y   N
         b. Can be "skipped" to move quickly   Y   N

   6. Full screen editing is used   Y   N

   7. A separate command summary or program map
       is available in addition to the manual   Y   N

   8. An understanding of "debit" and "credit"
       terminology is not required   True   False

   9. Error correction
         a. The user is asked to verify entry
             correctness before continuing   Y   N
         b. Errors can be corrected directly even
             after being written into the disk file   Y   N

3

c.	Offsetting entries are needed only after posting or closing	Y	N
d.	Entries <u>cannot</u> be deleted once written into disk file	T	F

10. A list of error codes and how to recover
is provided   T   F

II. Required Accounting Features

A. Income

1. Ordinary income categories

		Yes	No
a.	Cash	Yes	No
b.	Noncash (e.g., on-farm transfers)	Y	N
c.	C.C.C. sales (versus loans)	Y	N
d.	Nonfarm business	Y	N
e.	Personal	Y	N
f.	Other _____		

2. Items "held for sale" are stored:

a.	For tax preparation (across years, if needed)	Y	N
b.	For cash flow analysis and projection	Y	N

3. Capital sales are separated from other
income?   Y   N

4. Other types of transactions:

a.	Trades, exchanges and barters	Y	N
b.	Reimbursements, refunds, etc.	Y	N
c.	Patronage dividends: cash and noncash	Y	N
d.	Nontaxable income	Y	N
e.	On-farm consumption of farm products	Y	N
f.	Other _____		

5. Can the list of income categories
be customized?   Y   N

6. Are quantities entered as well as dollar
amount of transaction   Y   N

7. Units are identified with quantities   Y   N

8. Noncash items are automatically excluded
from cash flow   Y   N

B. Expenses

1. Ordinary expenses

a.	Operating	Y	N
b.	"Held for Sale" items	Y	N
c.	Noncash (e.g., on-farm transfers)	Y	N

2. Capital expenses

2. Capital expenses
   a. Purchases   Y   N
   b. Depreciation & Cost Recovery Entries   Y   N

3. Other types of expenses:
   a. Trades, exchanges, barters & other
      noncash items   Y   N
   b. Nondeductible items   Y   N
   c. Nonfarm expenses   Y   N
   d. Personal   Y   N
   e. Other _____

4. Can the list of expense categories
   be customized?   Y   N

5. Are quantities entered as well as
   dollar amount of transaction?   Y   N

6. Units are identified on screen
   with quantities   Y   N

7. Noncash items are automatically excluded
   from cash flow   Y   N

C. Cash accuracy check   Y   N

D. Required Reports

1. Income Statement
   a. Cash basis   Y   N
   b. Schedule F report   Y   N
   c. Available early for tax planning   Y   N

2. Actual Cash Flow Statement
   a. Monthly   Y   N
   b. Quarterly   Y   N

3. Monthly Journal Listing   Y   N

4. Transaction Listing by Account   Y   N

III. Desired Accounting Features

A. Net Worth Statement/Balance Sheet

1. Assets by short, intermediate, and
   long-term categories: Yes   No
2. Liabilities by short, intermediate, and
   long-term categories: Y   N
3. The traditional format is used with assets
   on the left and liabilities/net worth on
   the right   Y   N
4. Are separate columns available for
   different valuation methods?   Y   N

5. Are footnotes automatic?	Y	N
6. Business & personal separated	Y	N

B. Farm Profit/Loss Statement

1. Cash Operating Statement (separated into operating income and expenses)	Y	N
2. Inventory Adjustments	Y	N
3. Capital asset adjustments	Y	N
4. Other noncash transactions	Y	N
5. Farm profit/Loss	Y	N
6. Nonfarm income	Y	N
7. Personal expenditures (including savings) and other nonfarm expenditures	Y	N
8. Retained earnings	Y	N

C. Cash flow statement

1. Basic statement of inflows and outflows	Y	N
2. Summary of flows and borrowing needs	Y	N
3. Budgeted versus actual	Y	N
4. Includes section on loan balances	Y	N
5. Can be transferred to a spreadsheet	Y	N
6. Can be read from a spreadsheet	Y	N

D. Other Records

1. Accounts Receivable	Y	N
2. Accounts Payable	Y	N
3. Loan accounts	Y	N
4. Inventory records	Y	N
5. Capital Asset records		
a. Purchases	Y	N
b. Sales	Y	N
c. Depreciation/cost recovery calculation	Y	N
d. Fair market value by period	Y	N
6. Social Security		
a. For employees	Y	N
b. For nonfarm employment	Y	N
7. Payroll reports	Y	N
8. "1099 Misc." Information including vendor's soc. sec.	Y	N
9. Workman's Compensation	Y	N
10. Other _____		

E. Check writing option

    1. Check writing is in the basic program   Y   N   cost?
    2. Check and transaction information can be
        entered at the same time, but they don't
        have to be   Y   N
    3. Payments from several transactions can
        be combined into one check   Y   N
    4. Check printing can be delayed   Y   N
    5. Check register report can be printed   Y   N

F. Accuracy Checks

    1. (Cash flow accuracy check is listed previously.)
    2. Profitability/net worth/retained earnings   Y   N
    3. Liabilities   Y   N

G. Business Analysis

    1. Profitability measures   Y   N
    2. Solvency measures   Y   N
    3. Liquidity measures   Y   N
    4. Trend analysis if used in subsequent years Y   N
    5. Monthly or quarterly analysis is available Y   N

H. Enterprise Analysis

    1. Two levels of enterprise coding   Y   N
    2. Cash income and expenses can be allocated
        directly to enterprises   Y   N
    3. Overhead expenses can be allocated
        to enterprises   Y   N
    4. Adjusts for inventory changes   Y   N
    5. Enterprise Reports:
        a. Gross margins   Y   N
        b. Cash flow statement   Y   N
        c. Net worth statement   Y   ·N
        d. Are these available on a total
           enterprise basis?   Y   N
        e. Are these available on a per unit basis? Y   N

I. Access to data & unstructured formats for planning

    1. Custom reports can be developed by user   Y   N
    2. Can data be transferred to spreadsheets   Y   N
    3. Is the file structure explained for access by
        other languages (e.g., Pascal or Fortran)? Y   N
    4. Is the system written in an accessible
        database (e.g., dBASE)?   Y   N
    5. Are data files from old versions accessible
        by new versions?   Y   N

IV. Ratings

    A. Number of Y's and T's in "I. General Information" _____ - 53 x 100 = _____%

    B. Number of Y's and T's in "II. Required Information" _____ - 38 x 100 = _____%

    C. Number of Y's and T's in "III. Desired Information" _____ - 59 X 100 = _____%

    D. An overall percentage could be calculated, but that may cause interpretation problems. For example, a high rating in "Desired Information" may cover up deficiencies in "Required Information" if an overall rating is used.

    E. User defined rating: _____ = _____ - _____ * 100 = _____%

    F. User defined rating: _____ = _____ - _____ * 100 = _____%

V. Other programs, modules, etc., that are available and can use the data in the basic program evaluated:

_____   _____

_____   _____

_____   _____

VI. Other Comments: