

Record-Keeping: Essential to Risk Management

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Information is power! Think of the power and money one could command with perfect information. Think of all the regulatory statutes used to prevent the misuse of “insider” information. Unfortunately, we live in a world of imperfect information. Still, think of all the available information not being properly used that potentially could be transferred into power and money. A major management challenge is to collect, sort out, and use accurate pertinent information for decision-making, while ignoring volumes of useless, time-consuming and erroneous information, and at the same time not overlook essential helpful information.

Record keeping is not particularly exciting work. In fact, it is usually quite boring. It is time consuming, often tedious, and has few immediate tangible benefits. The benefits come from being able to make correct decisions based on credible, documented information; and remember, information is power. Power to make the right decision with confidence; or at least as

much confidence as is humanly possible in an imperfect world.

Both historical data and projected information are needed to make the crop insurance purchase decision. The value of outlook information in managing risk was discussed in a previous article. (“Outlook Information: Essential to Risk Management”, *Crop Insurance Today*, Vol. 30, No. 2, May, 1997, p:18-19.) This article summarizes typical types of records most growers would find helpful in making management decisions.

Effective management depends on accurate measurement. In fact, if it can't be measured, it can't be effectively managed. With risk management, the rub comes because measurement of many important variables is often subjective, and extremely difficult if not impossible. For this reason it is important to accurately measure those variables that can be objectively measured. Thus, the answer to the question for why detailed farm records are necessary and important.

What types of information should farmers keep, how much should they collect, and how is the best way to organize it? These are legitimate questions. As with most activities, there are numerous ways to successfully accomplish the same goal. The attached list, "Farm Management Records", is one representation of the categories and types of records that most successful farmers maintain for their operations. A checklist is also included that can be used to determine the status of an individual's farm records. With the exception of goals, these are objective measures and observations of fact.

Producers who prove their yields find crop insurance more attractive. Certifying production under the APH program requires a minimum of 4 years of records. Developing probability distributions of risky events using farm level data, is immensely valuable in risk analysis. The longer the series of data, the better, however ten years of data would be a minimum requirement.

The popular expression made famous in the computer world, GIGO (garbage in-garbage out) applies to farm record-keeping.

Any analysis is only as accurate and strong as the information used to support it. Farmers typically concentrate on activities exhibiting tangible results. Record-keeping for the sake of record-keeping is a waste of time. However, recording important information that can aid in the decision process and the effective management of risk is viewed as a worthwhile activity.

To effectively make the crop insurance purchase decision, a grower needs to be able to answer a series of questions about his own risk taking ability and that of his farm. The list, "Crop Insurance Risk Management Questions", is provided as an example checklist of the types of questions farm business owners need to consider. This is not an exhaustive list, but is representative. Only they can determine what the correct answers are. It is the role of the agricultural professional (crop insurance agent, lender, broker, crop consultant, etc.) to provide technical assistance where needed, enabling the grower to perform the analysis and make the decision. For example, only the insurance agent can provide the necessary rate and policy information needed to make the crop insurance purchase decision. Lenders can provide interest rate and repayment requirement information.

Introducing brokers can provide technical hedging information. Crop insurance agents who possess a thorough understanding of farm records and their use in risk decision making, are in a strong position of being able to provide the service demanded by today's successful farmers.

Many record-keeping and accounting software packages are commercially available. Typical features include double entry accounting, preparing enterprise budgets, generating complete coordinated financial statements, and calculating the "sweet sixteen" financial performance measures. These packages are relatively inexpensive. Moreover, professional assistance is available from a multitude of

private companies and institutions that specialize in helping farmers with their record-keeping and accounting activities.

In conclusion, remember it takes time to document farm performance. Time is a precious resource. So is accurate information about farm productivity. As profit margins narrow, survival depends on all resources available to the farm manager being put to their most productive use. Farm records are an important resource too often ignored and not used effectively. Farm accounting and activity documentation are basic record-keeping functions essential to effective information management. And remember, information is power!

Farm Management Records

Production Records

Enterprise Budgets* (Crop Budgets): Projects costs and returns over a production period including direct costs (seed, chemicals, fertilizer, crop insurance, fuel, repairs, hired labor, irrigation, etc.), indirect costs (marketing overhead, depreciation, investment and land taxes), returns to management and labor; and yield records including both quantity and quality.

Resources Flow Budgets: Similar to cash flow in concept, each limiting resource should have a flow budget that reflects sources and uses over time. Examples of limited resources include labor, machinery (by function—seeding, cultivating harvesting, etc.).

Financial Records

Income Statement: Reports the amount of profit the business generates on an annual basis. An accrual statement provides a better measure of the firm's performance because it considers changes in inventories, rather than cash transactions.

Balance Sheet: Summarizes the values of the firm's owned assets and liabilities. The difference between the two totals is the owner's equity (net worth).

Cash Flow Budget: Reports the sources and uses of the business' cash resources reflecting both the change in cash, and the timing of when the cash was spent or received.

“Sweet Sixteen” Measures: *Liquidity* (current ratio, working capital) *Solvency* (debt/asset ratio, equity/asset ratio, leverage ratio) *Profitability* (rate of return on farm assets, rate of return on farm equity, net farm income) *Financial Efficiency* (asset turnover ratio, operating profit margin, operating expense ratio, depreciation expense ratio, interest expense ratio, net farm income from operations ratio) *Repayment Capacity* (term debt and capital lease coverage ratio, capital replacement and term debt repayment margin).

Family Living: A complete listing of family living expenses to include sources of off-farm income and cash withdrawals from the farm to meet living expenses. In-kind contributions from the farm operation to the family should be included.

Ownership/Personal Records

Asset Inventory: A complete listing of all assets controlled by the business including ownership type and/or control arrangements including leases and terms of agreement. For each asset an estimation of its productive capacity, and its opportunity cost.

Ownership Arrangements: Listing of all partnership, landlord/tenant, resource sharing (machinery, labor, etc.) agreements explaining how each owner/party is compensated and what the responsibilities and authorities of each are.

Estate Plan: Describes the exit/entry and retirement plans of the business owners including all transfer instruments (will, trusts, insurance, annuities, buy-sell agreements, etc.), and documenting all property ownership. Also should include instructions regarding health, disability, and other personal matters.

Statement of Goals: A description of business objectives covering both short and long term horizons. Personal goals relating to the business should be listed for each “stakeholder” in the farm with alternative plans to reconcile competing goals.

*An enterprise *budget* is a projection of costs and returns based on projected yields and prices, whereas, an enterprise *account* is a historic summary based on actual yields and prices.

Farm Management Records Checklist

Production Records

Enterprise Budgets (By Crop)

0	1-3	4+	years		0	1-3	4+	years	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____

Resources Flow Budgets

0	1-3	4+	years		0	1-3	4+	years	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Labor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Machinery: Harvesting
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Machinery: Seed Preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Machinery: Seeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Machinery: Cultivating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		_____

Financial Records

Income Statement

0 1-3 4+ years Date of last statement: _____

Balance Sheet

0 1-3 4+ years Date of last update: _____

Cash Flow Budget

0 1-3 4+ years Date of last update: _____

“Sweet Sixteen” Measures

0 1-3 4+ years Date of last analysis: _____

Family Living

0 1-3 4+ years These records were last updated on: _____

Ownership/Personal Records

Asset Inventory

yes no These records are current, with sufficient documentation.
 They were last updated on: _____

Ownership Arrangements

yes no These records are current, with sufficient documentation.
 They were last updated on: _____

Estate Plan

yes no These records are current, with sufficient documentation.

 They were last updated on: _____

Statement of Goals

yes no These records are current, with sufficient documentation.

 They were last updated on: _____

Crop Insurance Risk Management Questions

Farm Records

- How many years of farm records do I have?
- Have I:
 - Identified reliable sources of outlook information?
 - Certified my production history with my crop insurance agent?
 - Taken advantage of basic and optional units?
 - Considered crop-hail and other private products?
 - Considered revenue insurance?

General Risk

- How much risk (production, marketing, financial):
 - Can my operation prudently bear?
 - Is it currently exposed to?
 - Do I want it exposed to?
- What is my propensity for risk taking?
- Are my subsequent actions consistent?
- Is my crop insurance coverage consistent with meeting farm and family goals?

Financial

- What size of loss:
 - Can my profit margin absorb?
 - Can I absorb without seeking outside sources of cash?
 - Can I experience and meet my cash flow requirements?
- Without adequate crop insurance coverage:
 - How much equity will I need to hold in reserve?
 - What sources of off-farm income are available to cover losses?
 - How will my family living expenses be met?
 - What will the impact be on my net worth at year end?
- Does my operating loan include enough money to cover my crop insurance premium?
- Have I informed my lender of these important dates and deadlines for each crop: (sales closing, final planting, acreage reporting, end of insurance period, payment due, cancellation, production reporting, debt termination, file notice of claim)?

Marketing

- What percentage of my crop can I sell pre-harvest with confidence?
- Have I provided proof of insurance to my lender and introducing broker, elevator operator, or co-op?
- Have I prepared a written marketing plan that includes:
 - Production cost estimates and break-even prices at various yield levels?
 - Minimum selling price under various strategies?
 - A clear pricing objective?
 - A clear profit objective?