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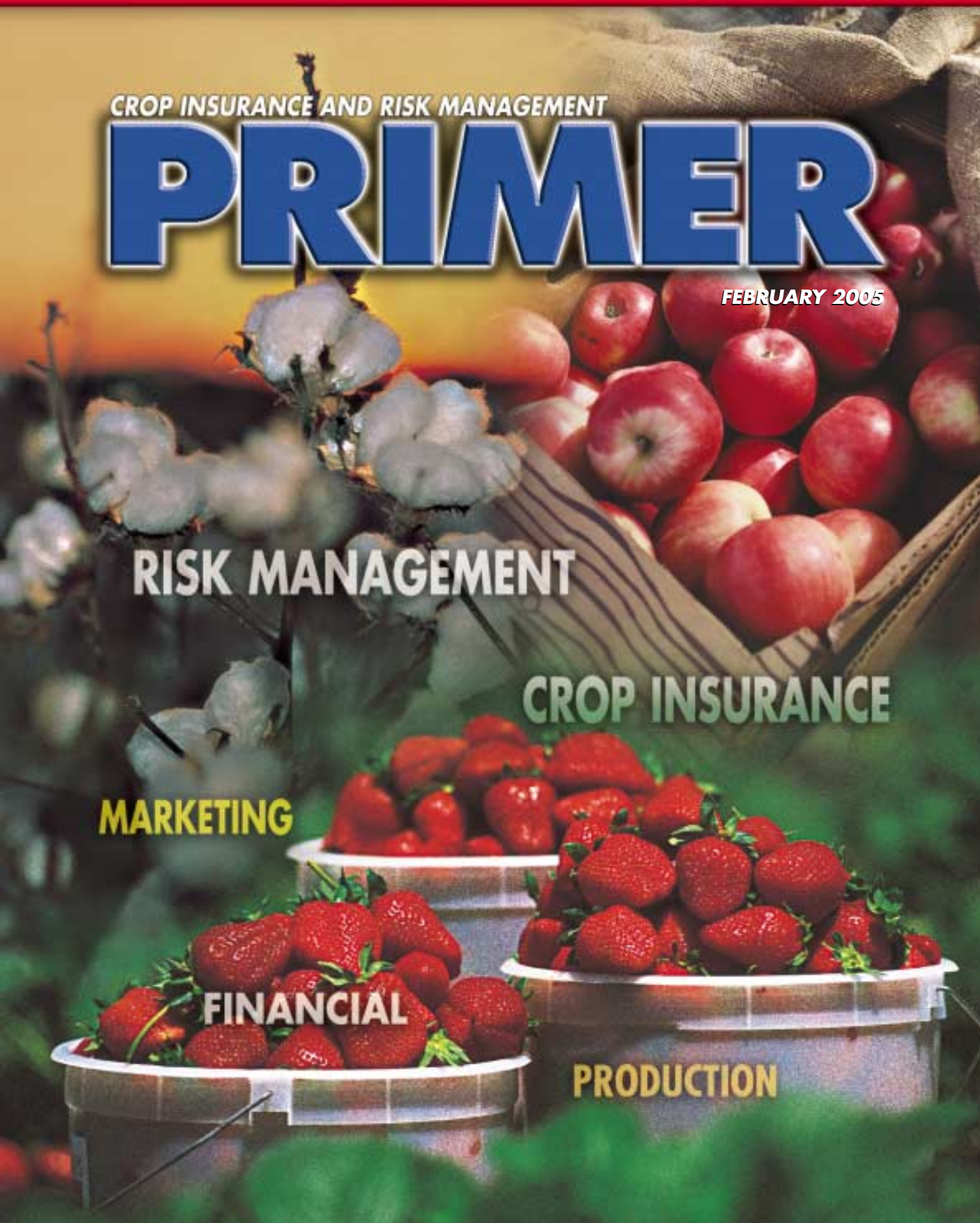

CROP INSURANCE AND RISK MANAGEMENT

PRIMER

FEBRUARY 2005

TABLE OF CONTENTS

PRIMER ARTICLES

Laurence M. Crane, Editor

The *PRIMER* IS PUBLISHED BY NATIONAL CROP INSURANCE SERVICES® TO EDUCATE READERS ABOUT THE RISK MANAGEMENT TOOLS PRODUCERS USE TO PROTECT THEMSELVES FROM THE RISKS ASSOCIATED WITH PRODUCTION AGRICULTURE.

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This *Crop Insurance and Risk Management PRIMER* is intended as an elementary introduction to crop insurance and agricultural risk management. This publication was created from existing educational materials, and edited with the risk management needs of those who have not previously participated in the crop insurance program in mind. Small, limited resource, and socially disadvantaged farmers should find this material on basic risk management principles and crop insurance particularly useful.

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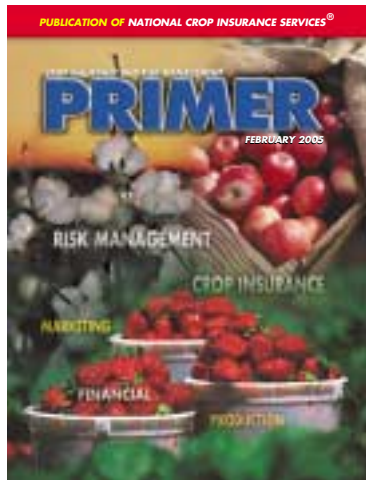


A World Of Information

National Crop Insurance Services

Why Should I Buy Crop Insurance?

"...it makes good economic sense!"

By Dr. Laurence M. Crane, NCIS

Insurance is a simple concept, yet a complex subject. The concept of joining together to provide affordable protection against staggering economic loss is simple; understanding the large number of insurance plans, products, and competing options to choose from is complex. Thus it is sometimes easy to become confused, discouraged, or worse—to do nothing at all. This article outlines the basic principles of insurance and highlights some of the popular misconceptions of crop insurance that lead to poor decisions and/or inaction.

By definition insurance is the means of protecting against unexpected loss. Everyone has insurance; either you buy insurance from an insurance company, or you insure yourself. When you self-insure there are no premiums to pay, but in the event of a loss you pay the full amount. In other words, with self-insurance you have a policy with a 100 percent deductible. The easy answer then to, "Why should I buy crop insurance?" is: It is better than the alternative. The more complete answer would be that in most cases it makes good economic sense.

To understand why buying crop insurance makes good economic sense and is prudent risk management, one needs to understand the basic principles of insurance.

Principles of Insurance

Pooling of Risks

Insurance is the pooling or combining of enough small unpredictable risks so that the losses over time for the combined group become statistically predictable. The basis of any insurance is the "law of large numbers." This basic law of mathematics means that as the number of exposures or participants increases, or as the size of the pool increases, the average results become more stable. Hence, what is a risky, uncertain, and burdensome possibility for an individual becomes in the combined pool a measurable, relatively constant, and manageable event that can be statistically estimated.

By paying a proportionate share of the loss for the group as a whole, it is possible for an individual to avoid a loss that, if borne alone, potentially could cause major financial problems or complete business failure. The relatively small premium paid by the individual is considered the expense of avoiding the full adverse effects of the particular risk being insured.

Insurable Risks

Unfortunately, not all risks are insurable. To be insurable, objects must be important enough to cause economic hardship to the insured if they are damaged and of sufficient number and quality to allow a reasonably close calculation of probable loss. Also, the potential loss must be accidental and unintentional, and, when an adverse event occurs, the amount of the loss must be capable of being determined and measured.

Economic hardship. What is a serious loss to one person may not be serious to another. A basic principle of purchasing insurance is that the most economic use of insurance premiums is to protect against the most serious loss first, i.e., those losses that cause the greatest business interruptions because one cannot absorb them out of current income or savings. For this reason, most insurance policies have deductible amounts to avoid the expense of small claims. This enables the cost conscious individual to purchase coverage for just the most severe events. Smaller losses can often be handled more cost effectively by the insured, rather than by the insurer.

Sufficient number and quality. To predict probable loss through the law of large numbers, it is essential that a large number of similar, though not necessarily identical, units be exposed to the same peril. The units must be of sufficient number and quality to allow a reasonably close calculation of the probable loss. Generally, the more data—geographical and historical—the more reliable the estimated loss potential and the more actuarially sound the rate structure.

Accidental and unintentional. Although some losses are expected for the combined group (pool), specific individual losses should be unexpected. There must be some uncertainty surrounding the occurrence, size, or timing of the loss, otherwise there would be no risk. There must also be little or no moral hazard. That is, the risk must generally be accidental in nature and the availability of insurance coverage should not reduce the incentive of the insured to prevent the loss, or induce the insured to cause the loss to occur in an effort to fraudulently collect the indemnity payment.

Determined and measured. The loss must be definite in time and place, and must be capable of being measured with reasonable accuracy. Loss procedures need to be established that determine if a loss occurred and its size before an insurer can safely assume the burden of risk. That is, for a loss to be insurable it also must be difficult to counterfeit so that the true cause can be determined and the true extent of loss can be measured. If this isn't done, the insurer could be exposed to phantom claims that would undermine program stability.

Popular Misconceptions

Crop insurance is a popular risk management tool with farmers and agricultural policy makers. Over 292 million acres were insured in 2000, and it is estimated that even more acres are covered this year. Congress has made crop insurance a major component of the safety net for farmers and continues to appropriate funds to subsidize farmer premiums. Education on crop insurance and risk management has been a major focus of the Cooperative State Research Education and Extension Service (CSREES). In spite of all this, there are still some producers who don't buy crop insurance. Sometimes this is a wise economic decision; other times it is due to common misunderstandings about insurance and/or a lack of understanding economics. Consider the following misconceptions about crop insurance.

"Insurance is a Bad Investment"

Sometimes insureds will say, "Insurance is a bad investment. I have been buying crop insurance and haven't collected a single payment." Insurance is not an investment with an associated expected return. However, crop insurance is particularly important from a financial standpoint. It enhances borrowing capacity because it can be assigned to a lender as loan collateral. It opens the door to marketing opportunities that would otherwise be unavailable by providing the means to replace bushels lost to an insurable cause, thus allowing a producer the ability to guarantee bushels as part of an aggressive marketing plan.

Crop insurance is a way of transferring the actual loss to another party in exchange for a fixed premium in advance of the occurrence of loss. Looked at another way, individuals who purchase automobile insurance and insureds who buy fire insurance on their homes understand that they don't want to collect. They view their insurance as protection against potential loss, not an investment earning an expected return.

Insurance is not purchased to recover losses *per se*, but is a method of eliminating the uncertainty for an individual as to whether or not a loss will occur that he must completely absorb. Thus, insurance performs its chief function during the period before any potential loss. Insurance has been described as the distribution of losses of the unfortunate few among the fortunate many. The insured has the security of knowing that should he be one of the unfortunate few individuals in the pool who suffer a loss, he will be reimbursed out of the premiums paid by the fortunate many who suffered no loss.

Finally the principle of indemnity means that a person may not collect more than his actual loss in the event of damage caused by an insured peril. This

means that even if the coverage purchased is in excess of the value of the crop, the insured cannot make a profit by collecting more than his actual loss if the crop is damaged.

"Crop Insurance Costs Too Much"

The cost of any insurance product is reflective of the size and uncertainty of the underlying risk. As discussed above, there are numerous factors that can affect the predictability and cost of any given uncertain event. The price of crop insurance is based on the historical damages of the units being insured in the same county.

Congress has recognized that crop insurance is a very useful tool in managing risk, but due to the risky nature of production agriculture the full cost of providing insurance is not a trivial expense. Consequently Congress has appropriated sufficient funds to subsidize the cost of buying crop insurance. In fact, the recent ARPA legislation significantly increased the subsidy to farmers. Moreover, a growing number of states provide an additional state funded premium subsidy to entice their producers to purchase crop insurance. The bottom line is this: crop insurance is widely recognized as an effective tool in managing crop production risks and is becoming more affordable.

"The Coverage I Need is Not Available"

This is becoming less of an issue all the time. Not only did congress authorize increased subsidies for farmer premiums, they also authorized increased coverage levels for some crops, and appropriated adequate funds to research and develop additional insurance products covering previously uninsurable crops. The chart beginning on page 59 lists, by state, the crops that are insurable under the federally subsidized and reinsurable MPCI product. However, private companies also offer many other crop insurance products that are not listed on this chart. Over time the offerings of crop insurance have significantly increased and all indications are that this will continue in the future.

Insurance is one commodity that must be purchased before it is needed. Once the hailstorm starts, it is too late to buy hail insurance. However, it is never too late to learn about crop insurance products and take advantage of this risk management opportunity. TODAY

CROP INSURANCE PLAN

By Lisa Cain, NCIS

The Crop Insurance Plan Comparison, first developed by NCIS in 2001, was updated in December 2003. The comparison includes the main and most popular government subsidized multiple peril products. But the comparison summary of coverage and chart is only an introduction, a starting point. It is NOT all encompassing, so the comparison should NOT be the ONLY source referenced before making any decisions that impact farming operations.

Crop Revenue Coverage (CRC)

The most widely available revenue protection policy is CRC. This policy guarantees an amount of revenue [based on the individual producer's actual production history (APH) x commodity price] called the final guarantee. The coverage and exclusions of CRC are similar to those for the standard MPCI policy. This final guarantee is based on the greater of the springtime generated price (base price) or the harvest-time generated price (harvest price). While the guarantee may increase, the premium will not. Premium will be calculated using the base price. Since the protection of producer revenue is the primary objective of CRC, it contains provisions addressing both yield and price risks. CRC covers revenue losses due to a low price, low yield, or any combination of the two. A loss is due when the calculated revenue (production to count x harvest price) is less than the final guarantee for the crop acreage.

Group Risk Income Protection (GRIP)

GRIP is the newest revenue product to come along. GRIP is based on the experience of the county rather than individual farms, so APH is not required for this program. A GRIP policy includes coverage against potential loss of revenue resulting from a significant reduction in the county yield or commodity price of a specific crop. When the county yield estimates are released, the county revenues (or payment revenues) will be calculated prior to April 16 of the following crop year. GRIP will pay a loss when the county revenue is less than the trigger revenue. Since this plan is based on county revenue and not individual revenue, the insured may have a loss in revenue on their farm and not receive payment under GRIP. Beginning with the 2004 crop year, the GRIP Harvest Revenue Option (HRO) Endorsement is available. This optional endorsement offers "upside" price protection by valuing lost bushels at the harvest price in addition to the coverage offered under GRIP.

The products and product topics summarized in this outline are not all-encompassing and do not substitute for the policy provisions. See the policy provisions and/or contact your company for a complete description of available coverage's and their terms and conditions.

COMPARISON

Group Risk Plan (GRP)

Like GRIP, GRP coverage is based on the experience of the county rather than individual farms, so APH is not required for this program. GRP indemnifies the insured in the event the county average per-acre yield or payment yield falls below the insured's trigger yield. The Federal Crop Insurance Corporation (FCIC) will issue the payment yield in the calendar year following the crop year insured. Since this plan is based on county yields and not individual yields, the insured may have a low yield on their farm and not receive payment under GRP.

Income Protection (IP)

IP is a revenue product that, based on the individual producer's APH, protects against a loss of income when prices and/or yields fall. While IP looks a lot like CRC, it does not have the increasing price function of CRC. The guarantee and the premium will be calculated using the spring-time generated price (projected price). An indemnity is due when the revenue to count (production to count x harvest price) is less than the amount of protection.

Multiple Peril Crop Insurance (MPCI)

MPCI is the oldest and most popular product to make this list. As the name implies, MPCI provides protection against a loss in yield due to nearly all natural disasters. For most crops, that includes drought, excess moisture, cold and frost, wind, flood and unavoidable damage from insects and disease. MPCI guarantees a yield based on the individual producer's APH. If the production to count is less than the yield guarantee, the insured will be paid a loss.

Revenue Assurance (RA)

The coverage and exclusions of RA are similar to those for the standard MPCI policy. However, MPCI provides coverage for loss of production, whereas RA provides coverage to protect against loss of revenue caused by low prices or low yields or a combination of both. RA has the Fall Harvest Price Option (FHPO) available. This Option uses the greater of the fall harvest price (harvest-time generated price) or the projected harvest price (spring-time generated price) to determine the per-acre revenue guarantee. So, with the Option, RA works like CRC, without the Option, it works like IP. RA protects a producer's crop revenue when the crop revenue falls below the guaranteed revenue.

Current as of January 6, 2005

Crop Insurance Plan Comparison

	CRC	GRIP	GRP	IP	MPCI	RA
Plan Code	44	73	12	42	90	25
Coverage	individual revenue	area revenue	area yield	individual revenue	individual yield	individual revenue
Administrative Fee	$30	$30	$100 CAT $30 additional	$100 CAT $30 additional	$100 CAT $30 additional	$30
Available Unit Structure	basic/optional/enterprise	one unit per county	one unit per county	enterprise	basic/optional/ enterprise/whole-farm	basic / optional / enterprise / whole-farm
Price Reference for Guarantee	higher of base price or harvest price	60%-100% of maximum dollar amount of protection based on expected price or higher of expected and harvest price if HRO elected	45% (CAT), or 60%-100% of maximum dollar amount of protection	projected price	price percentage elected by insured	projected price or higher of projected and harvest price if FHPO elected
Maximum Price Movement	upward/downward: corn & grain sorghum $1.50; cotton $0.70; rice $0.05; soybeans $3; wheat $2	not applicable	not applicable	none	not applicable	none
Coverage Level Percent Available	50%, 55%, 60%, 65%, 70%, 75%, 80%*, 85%* *see actuarial for availability	70%, 75%, 80%, 85%, 90%	70%, 75%, 80%, 85%, 90%	50%, 55%, 60%, 65%, 70%, 75%, 80%*, 85%* *see actuarial for availability	50%, 55%, 60%, 65%, 70%, 75%, 80%*, 85%* *see actuarial for availability	65%, 70%, 75%, 80%*, 85%* *see actuarial for availability
APH	required	not required	not required	required	required	required
Acreage Report	required	required	required	required	required	required
Guarantee	final guarantee = higher of: 1) minimum guarantee (APH yield x level x base price); or 2) harvest guarantee (APH x yield x level x harvest price)	dollar amount of protection elected by insured x net acres	dollar amount of protection elected by insured x net acres	APH yield x level x projected price	APH yield x level	APH yield x level x projected harvest price or, if FHPO and it is greater than projected harvest price, then APH yield x level x fall harvest price
Rating	continuous individual yield rated	area yield rated	area yield rated	individual yield-span rated	continuous individual yield rated	continuous individual yield rated
Subsidized by Government	yes	yes	yes	yes	yes	yes
Written Agreement	available, but restricted for optional units	available	available	not available	available	available to alter rate

	CRC	GRIP	GRP	IP	MPCI	RA
Premium	(1) approved yield x level x base rate x base price (2) approved yield x level x CRC base rate x CRC low price factor (3) approved yield x level x base rate x CRC high price factor (4) results of 1 + 2 + 3 (5) result of 4 x acres x share x applicable factor / surcharge (6) result of 5 x applicable producer subsidy percentage (7) result of 5 – result of 6	(policy protection x rate x 0.01) – subsidy	(policy protection x rate x 0.01) – subsidy	(1) approved yield x projected price x (acres x share) x applicable factor(s) (2) result of 1 x level (3) result of 2 x rate (4) result of 3 x subsidy (5) results of 3 – 4	(1) rate x liability x applicable factor(s) (2) result of 1 x subsidy (3) results of 1 – 2	calculated using automated premium calculator
Discounts for Good Experience	not applicable	not applicable	not applicable	not applicable	applicable	not applicable
High-Risk Land	eligible for coverage	eligible for coverage	eligible for coverage	not eligible for coverage	eligible for coverage	eligible for coverage
High-Risk Land Exclusion	available	not available	not available	not available	available	available
Hail and Fire Exclusion	not available	not available	not available	not available	available	not available
Replanting Requirements	applicable	not applicable	not applicable	applicable	applicable	applicable
Replanting Payments	available	not available	not available	available	available	available
Late Planting Provisions	applicable	not applicable	not applicable	applicable	applicable	applicable
PP Provisions	applicable	not applicable	not applicable	applicable	applicable	applicable
Notice of Loss	required	not required	not required	required	required	required
Loss Adjustment Procedure Required	yes	no	no	yes	yes	yes
Loss Due If	the calculated revenue (production to count x harvest price) is less than the final guarantee	the county revenue is less than the trigger revenue	the county yield is less than the trigger yield (expected county yield x level)	the revenue to count (production to count x harvest price) is less than the amount of protection	the production to count is less than the yield guarantee	the crop revenue (production to count x harvest price) is less than the guaranteed revenue

The Multiple Peril Crop Insurance Purchase

By Dan Shelden, NCIS

Losing a crop could cost you up to five years' profits. Most farmers can't stand much of that. This is why the various plans of multiple peril crop insurance (MPCI) makes good sense. Simply put, insurance enables you to substitute a small known amount of money (the premium) for a guarantee of an amount of production or revenue should your insurable crop suffer damage during the insurance period. There are well over a million MPCI policies on the books, each paying into the premium pool. A sizable portion of the premium is subsidized to make the farmer-paid portion more affordable. When crops suffer losses, it is the premiums that are used to pay them. Since all insured producers are unlikely to have a loss in a given year, actuaries can calculate average inflow and outflow from the premium pool in order to run the program on a sound basis. It is a simple concept tested and proven over many years. So, even if you have surplus capital in the bank, why would you tie it up to protect against the possibility of a loss when you could substitute a much smaller outlay to accomplish the same thing?

A fully subsidized catastrophic level (CAT) of insurance is available to producers "free" except for the "fee" ($100 per crop per county). However, farmers have increasingly realized that levels of coverage in excess of CAT should be considered in structuring a well thought out risk management program. Out-of-pocket MPCI premiums paid by the farmer are now the lowest ever thanks to recent passage of the Agricultural Risk Protections Act of 2000 that has provided enhanced premium subsidies. A $30 administrative fee (per crop per county) is applicable when you purchase an MPCI policy above the CAT level. The chart below, provided by USDA's Risk Management Agency (RMA), tells the story.

The time has never been more right to consider crop insurance as a risk management tool.

What Does My Policy Cover?

The MPCI program is run by the United States Department of Agriculture. Its mandate derives from an act of Congress (The Crop Insurance Act) that governs the manner in which the program operates. The Act specifies, "…the losses of the insured commodity must be due to drought, flood, or other natural disaster." Though some policies cover only a single peril, such as insuring raisins against rain damage as they are drying, most cover a wide range of perils that fall within the constraints of the Act. All told, some 120 causes of loss have been identified over the years. Importantly, adjustments to production for low quality are also built into most policies. Your loss payment will be based upon the deficit between your guarantee and the amount of production or revenue (where available) you actually achieve

Premium Subsidy Levels

Coverage Level	CAT 50/55	50 /100	55 /100	60 /100	65 /100	70 /100	75 /100	80* /100	85* /100	90* /100
Premium Subsidy**	100%	67%	64%	64%	59%	59%	55%	48%	38%	N/A
GRP/GRIP Premium Subsidy	100%	NA	NA	NA	NA	64%	64%	59%	59%	55%
Administrative Fee	$100	$30	$30	$30	$30	$30	$30	$30	$30	$30

*Where applicable.

**Applies to all plans of insurance (except group risk-based policies: GRP and GRIP) and all price levels within a coverage range.

for the crop year. In qualifying situations where the production is of low quality less of it counts against your guarantee, thereby increasing the loss payment.

What Insurance Plan is Right for You?

Perhaps you have talked to a crop insurance agent before. If so, you have probably discovered that crop insurance comes in a variety of forms. Not all of these plans of insurance are available everywhere or on every crop. Your crop insurance agent has information specific to your operation and whether or not a particular insurance plan is available for your crop.

- **Multiple Peril Crop Insurance (MPCI)** provides comprehensive protection against weather-related causes of loss and certain other unavoidable perils. Indemnities are paid at a price you elect prior to planting the crop. This is the 'original' plan and has been the workhorse of the industry. In recent years, farmers have increasingly considered innovative revenue plans of insurance.
- **Group Risk Plan (GRP)** insurance is based on the *county expected yield* rather than individual farm yields. This affordable plan can be useful when a farmer's individual yield tends to tract the yield of the county.
- **Revenue Products** provide revenue guarantees instead of MPCI yield guarantees. Revenue policies protect a grower's loss of revenue resulting from low prices, low yields, or a combination of the two. These programs are increasing in popularity. Introduced only a few years ago, they now comprise approximately 30 percent of all crop insurance liabilities.
  - ✔ **Crop Revenue Coverage (CRC)**—A loss results when the calculated revenue is less than the final guarantee. Losses are based on the minimum or harvest guarantee (whichever is higher) and the calculated revenue. This plan is now widespread through the country for corn, cotton, grain sorghum, rice, soybeans, and wheat.
  - ✔ **Group Risk Income Protection (GRIP)** makes a payment only if the county revenue for the insured crop is less than your trigger revenue. This plan is available for corn and soybeans in Illinois, Indiana, Iowa Michigan, Ohio, and Wisconsin; and for corn in Texas.
  - ✔ **Income Protection (IP)** policies pay when the harvested and appraised production to count, multiplied by the harvest price, is below the IP guarantee.
  - ✔ **Revenue Assurance (RA)**—An indemnity is payable when the production to count (any combination of harvested and appraised yield) multiplied by the county harvest price is less than the unit revenue guarantee. A fall harvest price endorsement is available. This plan is available for feed barley, canola/rapeseed, corn, rice, soybeans, sunflowers, and wheat in twenty-three states, although not every crop is available in all these states. Your local crop insurance agent can help you determine if this plan is available for your crop.
- **Adjusted Gross Revenue (AGR)** provides protection against low revenue due to unavoidable natural disasters and market fluctuation that occur during the insurance year. The pilot program uses a producer's historical IRS Schedule F tax form information and annual farm report as a basis to provide a level of guaranteed revenue for multiple agricultural commodities in one insurance product. AGR is now available in 18 states. AGR Lite is a streamlined version of AGR available in limited states offering protection to smaller farms.
- **Supplemental Protection to MPCI**
  - ✔ **Replacement Cost Coverage (RC)** provides for a payable indemnity when the unit has a yield shortfall and the harvest

commodity price exceeds the FCIC indemnity price. RC manages risk of forward contracting when the crop is short and the producer has to buy and deliver more expensive grain.

- ✔ **Fixed Price Indemnity** provides a producer's election to choose a fixed price increase (e.g. 10¢, 25¢, 50¢) above the FCIC market indemnity price.
- ✔ **Increasing Payment Rate** pays after a low yield threshold is reached and carries a reduced deductible.

Crop insurance policies are available from private insurance agents. A list of crop insurance agents is available at all county U.S. Department of Agriculture Farm Service Agency offices.

How Much Coverage Should I Get and What Will It Cost?

That depends upon your needs and your risk tolerance. Let's look at a program such as MPCI (also CRC and RA) that utilizes your individual yield history. Your agent will ask you to provide acreage and production information to establish the average yield you have historically produced for the crop you wish to insure. It is referred to as your Actual Production History (APH). The APH is a simple average of at least four, but not more than ten, years of prior yields. If you have never produced the crop, you may be eligible for a yield determined by actuaries as a transition until you begin to accumulate your own history. Coverage is stated as a guarantee. Generally, the insurance guarantee is available from as low as fifty percent of your average yield up to seventy-five percent. For some commodities such as grain sorghum, soybeans, cotton, and corn, coverage is now available for up to eighty-five percent in some areas of the country. Premiums run higher depending upon the increased level of protection you choose. But remember, thanks to the Agricultural Risk Protection Act of 2000, subsidies help defray your out-of-pocket costs to a greater degree than ever before. Your crop insurance agent can help you decide on an amount of protection that's right for your operation.

Your Responsibilities

The insurance policy is a contract of insurance, and both you and your insurer have important responsibilities. After the historical acreage and production figures you provide to your agent are used to establish your APH, they must then be updated each year with the results of your most recent growing season. In this manner, a moving 10-year average is built and maintained to ensure that your guarantee is based on the best possible data…your own.

This updating of the APH is done before the growing season starts each year. There are deadlines specified in your policy and your agent will help you. Once your insured acreage is seeded for the insurance year, you report the number of acres, your share in the crop, the date you completed planting, and other important information to your agent. Again there are deadlines associated with the job of reporting, and this is a crucial step that results in the determination of premiums and insurance liability.

Generally, if the insurable crop suffers damage, you must give notice to your provider within 72 hours of your initial discovery of damage. But be aware that there are more reporting requirements in the policy to which you must adhere, and you should spend considerable time with your agent in discussing them. The policy also requires you to protect the crop from further damage by continuing to care for it, and to obtain consent before any insured acreage is destroyed. This is not a complete list of your duties; consequently, it is important to have discussions with your agent so you have a clear understanding of your duties and how they affect your coverage.

Your insurance company also has duties under the contract. They promise to pay the loss within 30 days after you have reached agreement. Also your company must use loss adjustment procedures established or approved by the Federal Crop Insurance Corporation. Because of this, you can be assured of consistency in loss adjustment procedures regardless of the company you select to do business with.

This has been a brief overview of the multiple peril crop insurance program. There is much more to know about the program and how it can be used to help you manage risk. Call your crop insurance agent for current information. You'll be glad you did. TODAY

Important dates

- **Contract change date**—the crop insurance contract states that the policyholder will be notified of any changes in the insurance coverage on or before a specified date, so you can consider how they may affect your coverage before the cancellation date (below). The contract change date typically occurs 90 to120 days before the policy annually renews.
- **Sales closing and cancellation dates**—An applicant for insurance must apply prior to a specified date on file in your agent's office. Sales closing dates are intended to be early enough that neither party to the insurance contract has knowledge of the crop's production prospects for the year. The application for insurance includes the crop for which the insurance is sought, the county in which it is to be grown, the coverage level you choose with the price at which the crop is to be insured. A farmer may choose to insure a crop in one county but not in another. Other choices, such as coverage level, can also vary from county to county.

  For policies that are continuing from last year the sales closing date serves another function as well. It is the last opportunity to make changes (like coverage level or price election) to your contract for the upcoming year.
- **Cancellation date**—If you wish to discontinue insurance for the next year, you must do so by a specified date know as the cancellation date. The cancellation date is usually the same as the sales closing date, though minor differences occur on some crops.
- **Reporting of yields for prior years**—To keep your APH up to date, you must certify each year the acreage planted and the total production from the previous year. This annual update occurs the earlier of the acreage reporting date or 45 days after the sales closing date.
- **Final planting date**—The final planting date is the latest date that a crop can be planted in the area and qualify for the full insurance guarantee. Acreage planted after that date may still be insurable, but at a guarantee that has been reduced to reflect the shorter expected growing season.
- **Acreage reporting**—After the crop is planted, insured producers must file an acreage report with their insurance provider to certify the number of acres planted, the farming practice (for example, irrigated, non-irrigated, etc.) where appropriate, and any other information required to insure that crop in that area. Typically, the acreage report is due about two weeks after the *final planting date*.

  After RMA accepts the acreage reports, it calculates the amount of subsidy and credits the appropriate amounts to insured farmers and their insurance providers.
- **Payment of premiums**—Premiums and any fees that insured farmers are required to pay are generally billed after the acreage report has been filed and processed. The amount of the premium that is owed depends on several factors, including the number of acres planted, your APH yield, level of protection selected and the farming practice. Policyholders have 30 days after a date known as the *billing date* (on file in your agent's office) to pay the premium.

Characteristics of Outstanding Agent Service

By Dr. Laurence M. Crane, NCIS

The question is often asked, "What makes a good agent?" The answer can be summarized into one word: service. Obviously, service can mean different things to different people; but in general, service is providing the customer what they want, when and how they want it. Nonetheless, there are some basic components of service, that when followed, earn the moniker of "good service." Successful farmers know what they want from their insurance agent, and they expect to get it. In our competitive economy the marketplace rewards those who provide what is expected, and penalizes those who don't.

Professional Ethical Behavior

First and foremost is personal and professional ethics. Companies and farmers alike want to do business with individuals who act ethically and exhibit professional behavior. Agents who have demonstrated an ability to do the right thing both personally and professionally, are a credit to themselves, the companies they represent, and the crop insurance industry. These individuals will always be in demand

professionally because everyone knows they can be trusted. Companies seek their services because the company knows they will be well represented, and potential legal liabilities minimized. Farmers seek out honest agents with professional behavior because they desire reassurance that their private production records and other personal information will be kept confidential. Moreover, farmers are interested in doing business only with agents who understand how crop insurance works, and who make a genuine effort to correctly and completely represent the available products.

Product Knowledge

A good agent knows what products are available and the protection they offer. They also have the communication skills and ability to effectively explain them to others. The proliferation of crop insurance products, and the changing nature of the Federal program presents significant challenges for crop insurance agents to stay updated. Remaining current is critical and increasingly difficult to do. Being able to effectively explain the aspects of all available products to potential insureds, can appear overwhelming. Nonetheless, an agent must possess a thorough working knowledge of all products available in their area.

It requires a strong commitment to education and lifelong learning for an agent to stay technically current, thoroughly understand available insurance products, understand other aspects of agriculture important to crop insurance such as marketing, and possess the human relations skills required to communicate and provide the quality of service farmers need and deserve. Few vocations require more vigilance in personal study and effort to stay current than crop insurance. Consequently, crop insurance agents may need to attend a variety of training sessions and seminars, as well as engage in self directed study, to maintain their product knowledge and skill set regarding the components of the crop insurance program and farm management. Generally, this is time well spent as farmers select agents based upon an expectation that the agent's level of product knowledge is superb.

Provides Guidance

A good agent helps find the best product-to-farming operation fit to meet the producers risk management goals. For this to happen, an understanding of crop insurance, farming practices—including production, marketing, and financing—and risk management and their interrelationships are essential.

Successful farmers have a very good understanding of production and marketing practices and are proficient in the specific practices they employ. Coping with risk and unexpected changes is a constant challenge, and they are in a continual hunt for the best approach to manage these risky events. This is where their crop insurance agent comes in. They expect their agent to be fully and completely informed about crop insurance and

have the ability to answer their questions. Perhaps, even more valuable to them than answering technical questions about crop insurance products, is the ability for an agent to explain how crop insurance products support and impact their marketing plans. This is true customer service: a professional who can provide important information, critical to their making correct marketing and production decisions, and help them synthesize it into their management practices.

To successfully provide this type of information service, agents must understand production agriculture, how farmers formulate decisions, and the specific areas where they can add value to the process. They need an understanding of the big picture, including their role and the role of others who impact the farmer's decisions. They must recognize that the agribusiness environment is complex and interactive, and decisions and their outcomes are interrelated and connected.

Of particular importance is the ability of an insurance agent to understand marketing and its interaction with specific crop insurance products. It is expected an agent will understand marketing; producers does not want to have to educate their agent in the marketing area other than to discuss their preferred marketing alternatives. Successful farmers recognize the complexity of marketing, and the size of the task and effort needed for an agent to understand and comprehend all there is to learn about potential marketing practices. However, agents who make the effort and learn what is critical to understand, are in a position to provide the type of service their farm customers need, and view as exceptional.

Sends Reminders

It is the producer's responsibility to strictly adhere to the terms of the policy or insurance contract. A helpful agent will make it as easy as possible for an insured to provide essential and/or required information in a timely manner. For example, throughout the insurance year there are multiple critical deadlines that must be met. A good agent helps their insureds meet these deadlines and policy requirements by sending timely reminders of producer obligations. Regardless of whether the producer remembered the deadline or not prior to receiving the reminder, the underlying message has been received that the agent is looking out for the farmer in a meaningful and important way. It is a concrete way of further increasing their trust and strengthening the relationship.

Available for Assistance

A good agent is available to answer questions and provide assistance when and where the insured wants it. Convenience is important to producers who are often strapped for time at critical points during the year. Meeting their needs in an unobtrusive way usually reaps rewards. Even though we live in a service-oriented, high-tech society, there is still a strong demand for a high-touch approach. This is particularly true in production agriculture with its tradition of relationship-based sales. Typically, farmers identify with the personality of an agent more so than a particular company. The agent becomes *the* company to them. Consequently it is imperative to be seen as a risk management problem solver and not just a seller of insurance products.

Astute agents recognize their unique role and the importance of providing assistance in meeting deadlines and completing paperwork. Long-term survival depends on servicing the producer's crop insurance needs this year, and sufficiently addressing their other risk management needs to ensure they will be in business next year as well.

Provides Gap Measures

A good agent will go the extra mile to meet the insured's needs and leave nothing to chance. Providing services to fill information gaps and help farmers use crop insurance to manage their risk is an area where good agents excel. In a competitive industry there is little time for hand holding, business babysitting, and prodding; but there is ample room for innovation, initiative, and effort. Unfortunately, working hard is not enough to guarantee success. One must be proactive and creative, recognize opportunities, and be self-motivated to make it happen. Being able to recognize and capitalize on opportunities is usually the result of preparation and planning. Demonstrating behavior that makes the crop insurance process a little easier for the farmer will go a long way in cementing a long-term relationship.

A pattern seems to be emerging that typifies successful agents—those positioned to be around for the long term. The characteristics that describe this agent group are similar to the characteristics of other professionals (lenders, elevator operators, brokers, etc.) who work successfully with farm clients. As a group they understand the role service plays in selecting professional assistance. They are self motivated and go the extra mile in meeting the needs of their insureds. They have an appreciation for and understand the economic principles driving farm management decisions. They approach their professions as part of a larger team and know how crop insurance relates to other functions on the farm, particularly marketing. They know the value of education and outreach and are involved in professional development to maintain a keen understanding of product knowledge. They are persons of high integrity with a strong work ethic, and are effective in communicating and relating with others. They use these skills to deliver the high level of outstanding service farmers deserve and desire. TODAY

Harvest-Price Revenue Insurance and Pre-harvest Pricing

Companion Tools for Managing Grain Price and Yield Risk

By Dr. Robert N. Wisner, University Professor of Economics and Extension Grain Marketing Economist, Iowa State University

Today's grain production and marketing environment can be described as one with narrow and uncertain profit margins, and a high degree of price and yield risk. For the producer who has moderate debts and chooses to self-insure yields while relying strictly on cash marketing of corn, wheat, and soybeans, the future is highly uncertain. Even with government payments, a cash-only marketing strategy and normal yields in recent years has generated very limited profits or no profit at all. For the producer who takes advantage of above-average prices through forward contracting or hedging, but does nothing to manage production risks, the future also is risky. A year or two of severely reduced yields and having to buy back over-sold contracts at high prices can take years to recover from financially. Fortunately, however, there are tools that can help deal with these risks. This article provides some recent examples of how the tools work and their performance.

Pre-harvest Pricing

While selling part of a crop before harvest is not a guaranteed way of adding value to production, the historical track record indicates the odds of enhancing prices versus those available at harvest or through storage are increased with pre-harvest sales. With corn, for example, December corn prices during the spring of the year have been above harvest-time prices in about 80 percent of the years since 1975. For soybeans, November futures prices during this period have been above harvest time prices about two-thirds of the time. September futures on the Minneapolis spring wheat contract during early May, based on data compiled by Ed Ussett at the University of Minnesota, have been above early August prices in 68 percent of the years since 1980. The average price increase for all years was $0.13 per bushel. While that may seem like a small price gain, it represents a 43 percent increase in net revenue for a typical producer operating with a $0.30 per bushel net return. For corn, the average gain was $0.31 per bushel in the 81 percent of the years that provided a positive net return for forward pricing. For soybeans, the average gain in those years was $0.62 per bushel. Kansas City hard red winter wheat monthly average prices for September futures from 1985 through 1998, as compiled by Daniel Obrien at Kansas State University, show a $0.19 per bushel higher average price for May than for July.

Managing Production and Price Risks at the Same Time

Crop Revenue Coverage (CRC) and Revenue Assurance with fall harvest price option (RA-F) are logical companion products for pre-harvest pricing. Both guarantee dollars per acre of coverage, with coverage increasing if prices rise at harvest from the initial pre-harvest

levels. Both set the pre-harvest price before the normal increased spring volatility in prices, and on average, may not capture the price incentives available in April and May. Also, coverage is based on price times yield, so that the producer is not fully protected against price declines. If price declines but the yield is good, there may be no indemnity payment. By combining this tool with pre-harvest pricing, two things are accomplished. *First, even with better-than-normal yields, there is protection against lower prices. Secondly, in case of low yields, with the exception of replant payments, the insurance provides for replacement of the lost (non-produced) inventory at the higher harvest price, thus providing coverage to buy back over-sold forward contracts or hedges. For a hedge, the equal and opposite cash and futures positions are maintained with these insurance products—up to the insured percentage of the historical yield.* That is quite different from other types of crop insurance or no crop insurance at all, where rising futures positions generate losses that are not offset by an increased cash value of the crop or increased insurance coverage.

Examples of CRC or RA-F and Low Yields vs. No Insurance

The following examples show how these two tools work together for risk management. The initial corn futures price is the one used for revenue insurances in 1998. The rising price example is a hypothetical situation that could have resulted from adverse weather over a large part of the Corn Belt, for a farmer who contracted 100 bushels of corn per acre for fall delivery at a December futures price of $2.80 per bushel. In example 1(A,B,C), we assume the farmer had a zero yield and December futures rose by $0.50 per bushel after the corn was contracted. The zero yield obviously would represent an extreme, unlikely situation, for the majority of Corn Belt producers. We took the extreme case to illustrate the kind of protection provided by this insurance. Our example (1A) producer had an APH of 143 bushels per acre, and 70 percent CRC insurance coverage. This allowed him to forward contract up to 100 bushels per acre, knowing that market value replacement coverage was available for up to this amount of grain. Examples 1B and 1C show the net indemnity payments with CRC, RA-F, and with RA without the fall harvest price coverage, comparing the results from these policies with the "no insurance" situation. With no insurance and 100 bushels per acre forward contracted, the producer would have a negative $50 per acre return (cost of buying back the contracts) before subtracting any production costs, which might be as high as $300 to $350 per acre. In the insurance examples, we did not deduct premiums since these vary from farm to farm and from area to area. Example 2A shows return over variable cost, when variable costs total $175 per acre. Variable costs are those costs that would not exist if the crop is not planted. Fixed costs include such items as costs of owned land, depreciation on equipment and facilities, and any other costs that would be incurred even if the crop were not planted. With no insurance, this example would produce a dis-

CRC/RA-F Example

- Feb. avg. price of Dec. corn, $2.84
- Farm APH yield: 143 bu./a.
- Insurance @ 70%: 143 x .7 = 100 bu./a.
- 100 x $2.84 = $284/a. gross revenue

Example 1A

Pre-Harvest Contract With CRC of RA-F

Zero Yield & Rising Price

- Min. income: 100 bu./a. x $2.84 = **$284/a.**
- Actual income: 0 bu. x $3.30 = $0.00/a.
- Effective insurance: $3.30 x 100 bu./a.: **$330/a.**
- Indemn. payment: $330-0.00 = $330/a.
- Buy-back cost on contract = $50.00/a.
- Net: **$280/A.**
- Net indemn. pmt. without harvest price: **$234/a.**

Example 1B

Net Income Results, Zero

- **With no insurance**:
  -$50/A. (Before deducting any costs)
- **With CRC**:
  $330 - ($50 contract buy-back) = $280/a
- **RA without the fall harvest price option**:
  $283 - ($50 contract buy-back) = $233/A
  Difference = $47/a.

Example 1C

Income Results, Zero Yield & $175/A. Variable Cost

- **With no insurance**:
  -$50/A. -$175/A.=$225/A.
- **With CRC**:
  $330 - ($50 - $175) = $105/A.
- **RA without fall harvest price option**:
  $284 - ($50 - $175) = $58/A.

Example 2A

Pre-Harvest Contract with CRC Normal Yield & Falling Price

- Min. income: 100 bu./a. x $2.83 = **$284/a**.
- Actual insur. income: 145 bu. x $2.15 = $311.75/a.
- Effective income: $1.81x145 bu./a.:**$262.45/a**. (N. C. Iowa Cash price).
- Return over Var. Cost without contract = **$87.45/a**.
- Indemn. payment: $0.00
- With 100 bu./a. contract @ $2.45 local price: $326.45 gross/a.
- Return over variable cost with contract: **$151.45/A**
- Increased return over over var. cost through contract, 1,500 acres = $96,000

Example 2B

astrous situation for the farmer, with a negative net return over variable cost of $225 per acre. For a producer with 1,500 acres, that would be a total loss of $337,500 before deducting fixed costs. For the producer with CRC and the same 1,500 acres, the return over variable costs would be a positive $157,500. For RA without the fall harvest price option, it would be $87,000. ***Clearly, for non-irrigated farms, heavy use of forward contracting without attention to management of production risk can be dangerous.***

Next (Example 2B), consider the risk of passing up attractive pre-harvest pricing opportunities. By harvest time of 1998, December corn futures prices had fallen to $2.15 per bushel, with north central Iowa cash prices dropping to $1.81 per bushel (five cents above the CCC loan rate). With these market conditions and slightly above normal yields, as shown below, the farmer's return per acre, for insurance purposes, was above the minimum revenue guarantee in the CRC policy. Accordingly, no insurance indemnity payment was made. If the corn grower had not forward contracted corn at a higher price earlier, he/she would have received a gross return of $262.45 per acre and a return over the $175 variable costs of $87.45 per acre. Forward contracting 100 bushels per acre at an earlier price of $2.45 per bushel, however, increased the gross return to $326.45. That, in turn, left a net return over variable costs of $151.45 per acre. On a 1,500-acre corn operation, this combination of risk management tools and strategies would have boosted the return over variable cost by nearly $96,000.

Producers who use options purchases to set a floor on prices while retaining upward price flexibility may find that APH and/or hail and other types of supplemental coverage are adequate companion tools to combine with their marketing strategies. Options purchases do not expose farmers to market losses with rising futures prices, as happens with forward contracts.

Conclusions

The example above, for actual 1998 corn prices, is not an isolated example, although the declining-price pattern into harvest is not guaranteed and will not occur every year. A similar pattern also occurred in 1996, 1999, 2000, and numerous other years. To show the exposure to yield risks, we have taken the extreme case by using a zero yield. ***We used the extreme case to show a producer's financial vulnerability if he or she forward contracts aggressively without managing production risk. The extreme case also shows the potential role of CRC or RA-F in effectively managing that risk.*** The 1998 example also demonstrates that revenue insurances are not designed as substitutes for good marketing, but rather are companion tools to help producers market more effectively and to raise the comfort level when pricing grain before it is harvested. ***Because revenue insurance products base indemnity payments on both price and yield, there is not automatic protection against falling prices.*** Moderately declining prices combined with normal or higher yields should not be expected to generate indemnity payments. ***But use of marketing tools can protect against lower prices with normal or higher yields.***

Today's farm economy reflects narrow profit margins, substantial price risk, and increased weather volatility. To manage under these conditions, grain producers owe it to themselves to carefully study how various insurance products work and their potential role as companion tools in selling grain before it is produced. History indicates that the best opportunities to add value to a crop through marketing often come when the size of the national crop is most uncertain—often that is during the spring of the year. TODAY

For additional crop-related risk management information, visit www.econ.iastate.edu/faculty/wisner/.

MANAGING PROFIT AND RISK

By George Flaskerud, Extension Crops Economist, North Dakota State University

Marketing tools and crop insurance are among the basic building blocks of most strategies to manage profit and risk. Both need to be evaluated during the market planning process. In this article, development of a marketing plan will be discussed first followed by methods for implementation. During this phase of the plan, the use of evaluation software will be presented. Further information on the concepts and software can be found at **http://www.ag.ndsu.nodak.edu/aginfo/cropmkt/cropmkt.htm.**

Development

One of the first steps in developing a marketing plan is to evaluate fundamental supply and demand factors. The stocks/use ratio is a frequently used statistic to summarize the fundamentals. The ratio is equal to ending stocks divided by total use. It is often used to project the direction and magnitude of price changes based on historical relationships.

Price movements in futures prices can be analyzed using technical analysis. It is the study of past price behavior to determine where prices are likely to go in the future. Trends, resistance and support levels, retracements, moving averages, and other price indicators are the tools of the technician. Technical analysis should be used to supplement fundamental

analysis. For example, price objectives can be specified in a marketing plan using fundamental and technical analysis, and technical analysis can be used to refine the objectives as they are about to be achieved.

The basis is used along with the futures market to make farm level price projections. It can also enable a farmer to make more profitable cash sales and to make better use of other marketing tools. Basis is calculated as the cash price minus the futures price.

Agricultural commodities have historically exhibited seasonal price movements that are tied to the annual nature of the crop cycle. Those times of the year when prices are usually the highest can be used as a time deadline for selling a percentage of the crop. Storage costs must also be considered when selecting the time deadlines for selling.

Every attempt is made by producers to sell above breakeven prices. A survival breakeven price is equal to all cash obligations, including principal payments and cost of living, less government farm program payments, divided by the average yield. This breakeven price must be achieved annually if the farm is to survive without renegotiating loan payments. An acceptable breakeven price differs from the survival breakeven in that economic costs are included in the calculations instead of cash costs. Depreciation and interest on investment are substituted for principal payments. This breakeven price must be achieved in the long run for the farm to remain viable over time.

Marketing plans can be formulated with a number of goals in mind. Consider risk factors when deciding on a goal or combination of goals. Attitude toward risk and the financial condition of the farm operation are key risk factors.

- One marketing goal may be to sell for the marketing year average farm price.
- A modification of this goal would be sell during those times of the year when prices are at their highest, on average.
- This goal could be further modified so that preharvest sales would only be made during those years following a short-crop year.
- Another goal could be to sell only for prices that exceed costs of production.
- Selling at prices considered to be likely, given supply and demand fundamentals, is another goal. This goal must have a contingency plan in case the price projections are not achieved. A typical backup is to sell by a time deadline determined by seasonal price pattern peaks. A certain amount of the crop must be sold if a specific price objective has not been reached by the time deadline.
- Another goal may be to plan sales for those times of the year deemed most profitable by futures prices and basis projections.
- A combination of goals may be followed in constructing the marketing plan. The best combination will be unique to individual situations.

Based on the goals and other concepts discussed, a marketing plan can be constructed. Below is an example marketing plan for 2004 wheat production.

Example Wheat Marketing Plan

Production or Inventory Percent	Time Deadline	MGE December or Nearby
10	5/06/04	4.00
25	5/27/04	4.15
30	11/04/04	4.45
25	11/11/04	4.70
10	11/18/04	4.95

Price objectives are matched with time deadlines. At least five objectives and corresponding deadlines are usually specified in a marketing plan.

A percentage of the crop is sold when either the first price objective or time deadline is reached, another percentage of the crop is sold when either the second price objective or second time deadline is reached, and so on. The largest percentage is specified in the middle of the price range for this example. Alternatively, equal percentages or progressively larger percentages could be specified.

Time deadlines are based on the seasonal price pattern for cash wheat prices. Those times of the year when cash prices are usually the highest would be picked as selling deadlines.

Price objectives are specified in the Minneapolis December/nearby futures contract. The December contract would be used until December 1 and then the next nearest futures contract would be used. Futures prices rather than cash prices are specified to facilitate the use of technical analysis and alternative marketing tools such as hedges and options.

For the example marketing plan, sell 10 percent of the anticipated wheat crop by May 6 or when the December futures price reaches $4.00, whichever comes first. Sell an additional 25 percent by May 27 or when the price reaches $4.15; sell an additional 30 percent by November 4 or when the price reaches $4.45; sell an additional 25 percent by November 11 or when the price reaches $4.70; and, sell the final 10 percent by November 18 or when the price reaches $4.95. After November 30, use the next closest futures contract instead of the December contract. Marketing plans need to be reviewed and adjusted as new information becomes available.

Implementation

A marketing plan can be implemented using a number of marketing tools. The best tool to use depends on the situation. Elevator contracts can be used on that portion of production that can be

produced with near certainty, probably the first one-third in the case of preharvest sales.

Cash forward contracts, hedged-to-arrive contracts (sometimes called futures fixed contracts), and minimum price contracts are elevator contract alternatives that should be looked at for making preharvest sales. The best contract for a producer to use largely depends on current and expected futures prices and basis.

In general, selling one-third of anticipated production using a cash forward contract or a futures fixed contract and one-third using put options manages an enormous amount of price risk. A floor price can be established on two-thirds of anticipated production while the price is still open to the upside on two-thirds.

Price strategies can be refined when analyzed in combination with crop insurance products. Crop insurance and marketing tools can be evaluated in an easy-to-use spreadsheet program, which can be downloaded from the web site denoted at the beginning of the article. The program is called the "Insurance and Marketing Simulator" and requires the use of Microsoft Excel. It was developed by Matthew Diersen, South Dakota State University Extension Service, and Andrew Swenson, North Dakota State University Extension Service. Instructions for use of the model are also given on the web site.

The simulator can be used to evaluate popular insurance products: Multi Peril Crop Insurance (MPCI) and Crop Revenue Coverage (CRC). The simulator can also be used to evaluate a third product, Revenue Assurance with the Harvest Option (RA-HO), because it is essentially the same as CRC.

The simulator permits the sale of futures, purchase of puts and purchase of calls in combination with different insurance products. Selling futures can be used to represent a hedge-to-arrive elevator contract. All three of the tools can be used simultaneously.

The simulator is used to determine the best combination of insurance and marketing tools. The best combination may vary from one producer to the next depending on risk preferences, yields, prices, and product premiums.

Making marketing and crop insurance decisions based on a marketing plan that evaluates marketing and crop insurance tools simultaneously should improve the producer's marketing performance. Farm management concepts will be the guide instead of emotions. TODAY

MARKETING ALTERNATIVES TO MANAGE RISK

By Dr. Laurence M. Crane, NCIS

It is clear that the financial stakes are high in developing a sound plan to deal with fluctuating net farm income. After all is done to keep production expenses at a minimum, the only other components to income are maximizing the bushels produced and marketing them at a favorable price. Crop insurance is an important key for both of these because crop insurance can guarantee a certain level of production. And, because production is guaranteed, marketing alternatives become available that allow farmers to lock in a favorable price and sell at a profit.

Successful operators are sharpening their skills in marketing. Increasing numbers are marketing some, if not all, of their crop prior to harvest. Although producers do not individually control price, they do control when and how to price. Price movements in all commodities carry a great deal of uncertainty because of changes in weather and resulting yields, in foreign and domestic policies, in government and trade policies, and in general supply and demand forces.

Profitable marketing requires a logical approach in deciding at what price to sell or buy and by what method to establish that price. While the pricing decision is not always easy, it may be extremely rewarding. The decision of how to market and at what price requires an informed understanding of how markets work and why prices move up and down. Knowing the basics of supply and demand is necessary. But, also understanding the various marketing methods and tools helps in making the right marketing decisions. In this article, seven common marketing practices are briefly described and the major advantages and disadvantages of each are listed.

Sell At Harvest

This is the easiest form of marketing because it requires no planning or extra effort. When the crop is harvested it is sold for cash at the prevailing price. There are no storage or interest costs and the price is immediately known. Unfortunately, prices at harvest are usually the lowest of the season and sometimes congestion at the elevator will slow delivery. By selling at harvest, other marketing alternatives are no longer available.

Storing For Later Sale

A step up in sophistication from selling at harvest is to store the grain in on-farm storage or rent space in a commercial storage facility and market at a later date. This provides the grower with a longer marketing window into the future with the anticipation that the increase in price will offset storage costs and loss in quality. There is no guarantee that price will increase however, and the grower is exposed to not only storage and interest costs but also the risk of price declines and quality losses.

Cash Forward Contract

A third cash market based alternative is to sell the crop using a cash forward contract. Prior to harvest, the farmer signs a contract to deliver a fixed quantity and grade of grain at a specified price and at a specified location. These contracts are relatively easy to understand and readily available in convenient quantities. In this way a grower can extend the marketing window to a time earlier than harvest and take advantage of potentially higher pre-market prices, and eliminates the risk of adverse price or basis changes. The main disadvantage of a cash forward contract is the risk of a production shortfall. Crop insurance can essentially eliminate this risk; however, by guaranteeing a level of production, the insured grower can contract with confidence up to the level of their crop insurance protection. Also, there is the potential for prices to rally at harvest and contracting early eliminates the opportunity to take advantage of strengthening basis or price increases.

The decision of how to market and at what price requires an informed understanding of how markets work and why prices move up and down.

Deferred Pricing Contract

With a deferred pricing contract the grower agrees to the non-price terms of trade and a formula for determining price, but not on the price itself. For example, the grower agrees to deliver a specified quantity and quality of grain to a commercial elevator by a specified date at a price to be determined in the future. The sales price is tied to a particular base price (e.g., local posted bid or to a terminal market bid) plus a differential relative to the base price.

This affords the grower a longer pricing window and an opportunity to capitalize on any price increase, and to reduce storage costs. Cash flow is enhanced through advance payment options, and there are convenient contract quantities available. The downside is, the longer the grain is in storage the higher the potential storage and interest costs and likelihood of adverse price and basis changes. Also, should the elevator experience financial problems the grower is exposed to those risks inherent with being an unsecured creditor because they have surrendered title to the grain without first receiving payment.

Basis Contract

The final cash market based marketing alternative described in this article is a basis contract. With a basis contract, grain is delivered to a commercial elevator and sold prior to a designated date at a specified amount above or below a futures price. Basis is simply the difference between the cash market price and the price for a given futures contract. Basis encompasses local supply and demand conditions and reflects the transportation costs between the local market and the delivery point specified in the futures contract. Basis tends to be reasonably stable and predictable. Even though prices can vary greatly from year to year, the basis, or difference between the local elevator and futures price, varies relatively little.

Basis contracts allow growers to extend their pricing decision window while avoiding adverse basis changes and expensive commercial storage costs. Basis contracts are also available in convenient quantities and frequently partial advance payments can be arranged to help with cash flow. Even though basis is fairly easy to understand and calculate, it does require a certain level of understanding and effort to calculate. Also as with a deferred pricing contract, should the elevator experience financial

Sell At Harvest

At harvest grain is delivered and sold for cash in a convenient market.

Advantages:
- Easily understood
- Price is known immediately
- No costs or inconvenience of storage
- No accumulating interest costs
- No shrink or deterioration

Disadvantages:
- Harvest price is often lowest
- Shortens marketing window
- Eliminates other cash-based alternatives
- Congestion at elevators

Storing For Later Sale

Grain is placed in on-farm or commercial storage and sold at a later time determined by the grower.

Advantages:
- Extends pricing decision window
- Increases delivery flexibility with on farm storage or increases delivery convenience with commercial storage
- Return on storage if price rises

Disadvantages:
- Quality may deteriorate
- Decreased delivery flexibility if stored commercially
- Increased storage and interest costs
- Risk of adverse price change during storage

Cash Forward Contracts

Prior to harvest, grower signs a contract to deliver a fixed quantity and grade of grain at a specified price, and at a specified location.

Advantages:
- Extends pricing decision window
- Eliminates risk of adverse price or basis change
- Easy to understand
- Available in convenient quantities

Disadvantages:
- Increases production risk; delivery is an obligation
- Reduces flexibility when market conditions change
- No gain if price rises or basis strengthens

Deferred Pricing Contract

Grain is delivered to a commercial elevator and sold by a specified date at a price to be determined in the future. Price is tied to local posted bid or a terminal market bid.

Advantages:
- Extends pricing decision window
- Gain when price rises
- May eliminate or reduce commercial storage
- Possible advance payment
- Convenient contract quantities

Disadvantages:
- Interest cost and storage fees
- Risk of adverse price or basis change until grain is priced
- Potential repayment of advance
- Unsecured creditor in bankruptcy

Basis Contract

Grain is delivered to a commercial elevator and sold prior to a designated date at a specified amount above or below a futures price (or basis).

Advantages:
- Extends pricing decision window
- May reduce commercial storage
- No risk of adverse basis change
- Convenient contract quantities
- Possible advance partial payment

Disadvantages:
- Unsecured creditor in bankruptcy
- Risk of adverse price change until grain is priced
- Potential repayment of advance
- Basis knowledge required

Hedging With A Futures Contract

Selling appropriate amount of futures contracts offsets actual or expected cash market position. Futures contracts are "bought back" when grain is sold on cash market. Net price received is a combination of the cash market and futures transactions.

Advantages:
- Extends pricing decision window
- Risk of adverse price change is eliminated
- Easy to reverse position (liquidity)
- Basis is more predictable than price

Disadvantages:
- Risk of adverse basis change
- Margin requirements increase interest costs and may cause cash flow problems
- Contracts only in fixed increments
- Requires knowledge of futures and basis
- Eliminates gain from rising cash price

Using An Options Contract

A put option(s) that allows the holder to take a futures position is purchased for the actual or expected cash position. Options can be exercised, sold, or allowed to expire. Net price received is a combination of the cash market and options market transactions.

Advantages:
- Extends pricing decision window
- Risk of adverse price change is eliminated
- Partial gain from rising cash price
- Eliminates margin requirements
- Easy to reverse position (liquidity)

Disadvantages:
- Risk of adverse basis change
- Cost may be greater than price protection
- Contracts in fixed quantities only
- Requires significant knowledge and substantial data

problems, the grower is exposed to those risks inherent with being an unsecured creditor.

Hedging With A Futures Contract

Hedging is based on the principle that cash market prices and futures market prices tend to move up and down together. A grower (hedger) can protect against the risk of a price decline in the cash market by taking an opposite position in the futures market. When the grain is sold in the cash market, the futures contract is bought back by the grower. The net price received for his grain is a combination of the cash and futures market transactions.

Hedging with a futures contract reduces the risk of adverse price changes and extends the window of time for making pricing decisions. Hedging offers a high degree of liquidity and while downward price risk is offset, gains from rising prices are also eliminated and basis risk still exists until the cash transaction is made; however, basis risk is usually easier to predict than price risk. Futures contracts are only available in fixed increments and hedgers are subject to margin requirements that potentially could negatively affect cash flow. Margin money is a performance bond that prevents contract default and guarantees that the positions taken in a contract will be honored. Also, because hedging with a futures contract is a more sophisticated marketing strategy, the knowledge level and understanding of the relationship of basis and futures markets is increased.

Using An Option Contract

An options contract allows the grower to take advantage of price increases while protecting against price declines. A put option allows the hedger to take a futures position and establish a floor or minimum selling price. This contract gives the buyer the right (but not the obligation) to sell a futures contract at a predetermined price. This option can be exercised, sold, or allowed to expire. Options contracts allow growers to extend their marketing timeline and eliminate both decreasing and increasing price risk. Options also offer a high degree of liquidity and don't require margin money and the associated potential cash flow problems. On the other hand, marketing with options requires a working knowledge of the futures markets and good farm data.

Summary

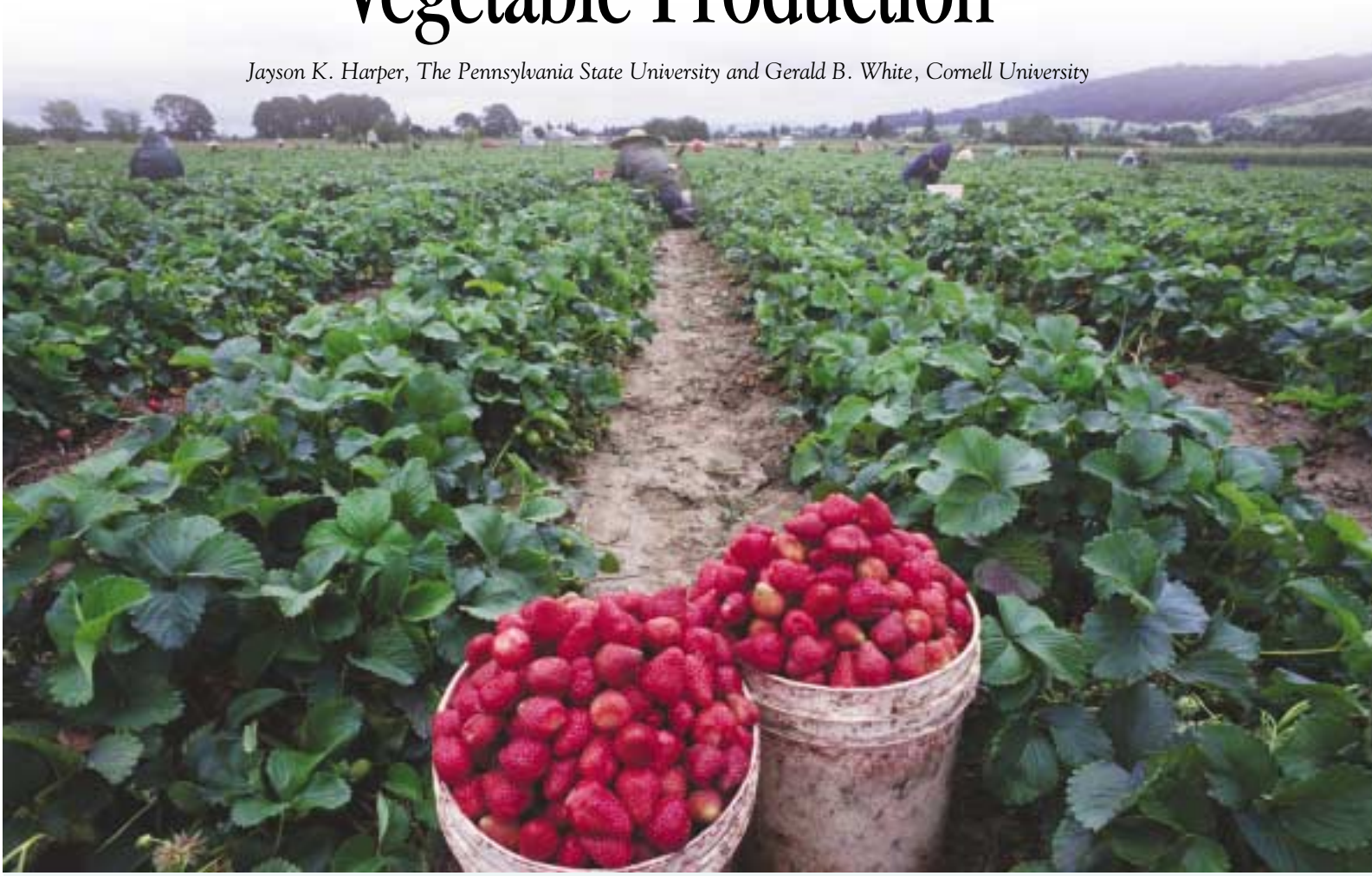
Financial and marketing risks for farmers are much greater than a few years ago. Narrow profit margins and wide swings in prices and income are causing farmers and their lenders to look seriously at the payoff for developing marketing plans and implementing well-managed marketing strategies. As with any decision, the more an individual knows and understands about all factors involved, the better the decision will be.

Market-determined prices are volatile. Current U.S. farm programs focus towards less government influence on price stabilization, and more emphasis on market-based production decisions. The farm safety net primarily consists of subsidizing crop insurance to make it affordable to every farmer, and market enhancement policies to expand the demand for farm products. Thus, farmers are forced to individually face the impacts of prices for their commodities that are determined in markets essentially free from government manipulation.

The good news is there are increased opportunities for profit; the bad news is there is an increased likelihood of loss and failure. The bottom line is farmers need to be proactive in their marketing and crop insurance decisions to ensure a profit and avoid a loss. TODAY

Managing Risk in Fruit and Vegetable Production

Jayson K. Harper, The Pennsylvania State University and Gerald B. White, Cornell University



When considering profitability, people are often seduced by the potential of fruit and vegetable production. Compared to most agronomic crops, these horticultural crops offer the opportunity to produce a fair amount of income on small acreage. With this income potential, however, come sizable risks. These risks can be categorized as either those impacting receipts or those relating to the cost of production.

Yield and Price Risk

Receipts are the gross returns (price times yield) from production. For perennial horticultural crops (tree fruits and nuts, small fruits, etc.), receipts may be zero for several years while the planting is in the preproductive stage. Variability in both yield and prices will affect receipts. The ability of the producer to deal with both types of variability will impact on the profitability of the enterprise. Large yields are not the important yardstick; having sufficient sales of high quality product is what is important to profitability.

Every year horticultural producers face yields risk in the form of adverse weather and pest damage. In a perennial crop, yield risk can take the form of year-to-year variability, or more serious damage that reduces the long-term production potential of the planting. Although yield risk is important, it usually has readily identifiable causes and remedies. In the Northeast, for example, average seasonal rainfall is somewhat less than is required for optimal performance of fruit and vegetable crops. Seasons in which moisture is a severe limiting factor affecting profitability occurs perhaps two or three years in ten, for individual growers.

Producers can reduce the effects of yield risk through irrigation, pest

management practices, and site and cultivar selection. In addition, multiple peril crop insurance is available for many fruit and vegetable crops grown in the Northeast including apples, blueberries (pilot), grapes, cabbage (pilot), snap beans (canning and processing), cranberries, peaches, pears, peas, peppers, plums, potatoes, stone fruit, sweet corn (canning and processing, and fresh market) and tomatoes (canning and processing, and fresh market). While it is important to minimize the effect of yield risks and its impact on profitability, producers are usually much more equipped to deal with this type of risk than those associated with marketing.

Marketing Risk

Marketing plays a crucial role in horticultural crop production and should be planned well in advance of harvest. In fact, fruit and vegetable growers really should be thinking of marketing prior to planting. This is particularly important for perennial crops where decisions about which varieties to plant are made several years prior to the first crop.

Knowledge of what the market requires (in terms of form and quality) and when to market is the key to success. Why do "good" growers go out of business, while others in less ideal production circumstances thrive? Often the difference is marketing acumen. Developing a marketing strategy requires careful evaluation of the supply and demand for your product and investigation of market alternatives. The successful marketer must strive to produce products, which satisfy basic customer needs and wants, rather than simply selling the products he/she produces. Strategic marketing planning requires specification of target markets, or the individuals or businesses identified as the most desirable customers. The selection of target markets in turn drives decisions about products (including varieties and packaging), promotion, pricing, location, and distribution strategies.

Seven traditional (distribution) alternatives are generally available to the horticultural crop growers: wholesale market, marketing cooperatives, local retail, roadside stands, farmers markets, pick-your-own, and processing. Other options such as rent-a-row/tree, community supported agriculture, and Internet and/or mail order may be worth investigating depending on the nature of the farm operation and the crops grown.

Wholesale marketing is often done on a producer assignment basis, where shippers market and ship the fruit for a predetermined rate. Whether a shipper is used to take a crop to the wholesale market, or it is transported directly by the individual grower, this marketing alternative is subject to the greatest price fluctuations. Marketing cooperatives generally use a daily-pooled cost and price, which spreads price fluctuations over all participating producers.

Local retail (selling directly to grocery stores) is another possibility, but considerable time must be spent in contacting produce managers and providing consistent quality when the store requires the produce. Roadside stands (either your own or another growers), pick-your-own operations and farmers markets are other marketing options. They provide an opportunity for growers to receive higher than wholesale prices for their produce. In this situation, however, there may be significant expenses for advertising, building and maintaining a facility and employing someone to service customers. In a pick-your-own (PYO) operation, harvest costs are saved, but growers must also be willing to accept some wastage. Furthermore, growers who market direct must be cognizant of the greater legal risk that is faced in dealing with consumers directly. The risk of food contamination, injuries (especially for PYO operations), and other potential liability claims significantly increase the cost of insurance for many direct marketers.

Depending on location, processing may or may not be a marketing option. Processing prices are often much more volatile than fresh-marketing prices. However, successful processing cooperatives, such as National Grape Cooperative (Welch's) and Ocean Spray are examples of cooperatives in the Northeast whose marketing practices reduce variability of cash flow for their members as well as usually supplying a premium over cash market prices.

Price and quality are synonymous in horticultural crop production. Unfortunately, it is not always easy to know what is meant by "high quality" and quality judgment often varies from year to year. Federal grade standards do not exist for all horticultural crops and those that have them are often not very specific. Often there is only one recognized quality grade, U.S. No. 1, which means produce of "good average quality." Buyers, however, often have additional criteria by which they judge produce quality including flavor, ripeness, aroma, cleanliness, and the absence of pest damage and foreign material.

Proper disease management, harvest practices (including picker instruction and supervision) and post-harvest handling are critical to marketing success. Cooling produce to remove field heat and improve shelf life is especially important. Treatments to reduce decay may be another important consideration. Sorting and washing of some fruits and vegetables can also be done to help maintain quality and improve appearance. For certain crops like small fruits and other delicate produce, sorting and/or washing is not an option; harvest crews must be well-trained, and quality continuously monitored to assure a marketable crop.

Cost of Production

Horticultural crop production is not for the financially faint of heart. For certain vegetable crops, preharvest costs may amount to several thousands of dollars per acre. For perennial crops, substantial initial investments are required and many years may go by before the first dollar

returns to the operation. For most perennial crops, the preproductive costs for land preparation and establishment are often many times the cost of annual horticultural crops. This is the period where growers are most exposed to financial risk. Growers must realistically assess their ability to absorb losses during this period and not rely on single enterprises for current and future income.

Naturally, growers complain when the costs of fertilizers and pesticides increase and they are often tempted to reduce these costs by cutting applications. In the whole scheme of things, however, these costs are minor. It makes little economic sense to jeopardize profitability by trying to save a few dollars here and there. Once the crop is established, the major cost by far in horticultural crops is for harvesting and marketing the crop. Labor management and costs are the primary concern. Investing in production practices, which reduce yield and quality variability, are rarely a waste of money.

Good labor management is a key to horticultural crop profitability. Because of the perishable nature of these products, hand picking is often the only alternative. Understanding the labor market and planning for adequate and experienced labor is critical to having a high-quality crop ready to market. Growers must understand the federal, state and local laws, which apply to the use of agricultural labor. These laws include those relating to migrant and seasonal workers, immigration, child labor, wages and hours, withholding taxes, unemployment compensation, family and medical leave, worker's compensation, worker protection (pesticide exposure, safe workplace, field sanitation) and migrant housing. Communicating your firm's personnel policies is a key element in effective human resource management.

Horticultural Crop Budgeting

Understanding the magnitude of the financial risks and the nature of cash flows in horticultural crop production requires the preparation of enterprise budgets. Enterprise budgets represent estimates of the receipts (income), costs and profitability associated with the production of agricultural products. Budgets are used to:

- Enumerate the receipts (income) received for an enterprise;
- Enumerate the inputs and production practices required by an enterprise;
- Evaluate the efficiency of farm enterprises;
- Estimate benefits and costs for major changes in production practices;
- Provide the basis for a total farm plan;
- Estimate break-even price and/or yield for market planning purposes; and,
- Support applications for credit.

Enterprise budgets should contain receipts (income) for every product and by-product of the enterprise. Prices should be used which reflect the markets faced and the productivity of the enterprise, given the specific resource situation (land, labor, equipment, etc.).

Enterprise budgets contain several cost components. Determining the costs of various decisions can be difficult. Frequently, individuals disagree over which costs to include and how they should be measured. Understandably, these differences arise because production costs are unique to each individual resource situation.

One of the more common classifications divides cost into variable and fixed costs. Variable costs are those expenses that vary with output within a production period. Examples include marketing, fertilizer, chemicals, fuel, repairs and hourly or seasonal labor. Other terms used to describe variable costs include cash costs (or expenses), direct costs, and out-of-pocket costs.

Fixed costs include depreciation, taxes, interest on investment, land charges, annual labor, and insurance. Sometimes, a management fee is also included as a fixed cost. These costs are considered to be "fixed" because they generally remain at the same level within a production period and do not vary with the level of output. Indirect, non-cash, and overhead costs are other terms used to describe fixed costs.

Total costs are the sum of variable and fixed costs. Although a grower's aim is to earn a profit above total costs, this is not always possible. Because of yield or marketing conditions beyond the grower's control, income received is sometimes less than the total costs of production. Should a grower continue to produce under these circumstances? The answer may be yes if returns are above variable costs and it is a short-term condition. If fixed costs are not covered in the long run, however, reinvestment in capital items (like tractors, implements, buildings, and equipment) cannot be made and the result is a depletion of existing capital stock.

Conclusions

Horticultural crop production has excellent profit potential and the ability to generate significant income on small acreages and limited resource farms. This profit potential, however, comes with a fair amount of risk. Producers must be prepared to not only produce a high quality crop, but also be an active and aggressive marketer. Initial investment is high and substantial annual cost of production requires growers to be able to financially weather annual cash flow demands (and the costs associated with preproductive years in fruit crops). For those who can balance the demands of production and marketing, the future of fresh market horticultural crop production in particular appears very favorable. Per capita fresh consumption of most fruits and vegetables are rising, which bodes well for the continued strength of fresh market prices. TODAY

COMMUNITY BASED ORGANIZATIONS (CBO'S): KEY TO REACHING LIMITED RESOURCE FARMERS

By Dr. Laurence M. Crane, NCIS

Left to right: Dr. Laurence Crane, NCIS; Dan DeLano, Rain and Hail, LLC.; Luz Bazan Gutierrez, President and CEO, Rural Community Development Resources; Hector Franco, Rural Community Development Resources; Velma Perez, President, Hispanic Chamber of Commerce of Yakima County and owner of Velma Perez Insurance Agency; and Dan Bird, Rural Community Insurance Services.

The group spent two productive days discussing all aspects of the crop insurance program.

Meeting the risk management needs of all farmers interested in crop insurance is a priority of the crop insurance industry. Large amounts of money and time are spent annually by the private industry educating farmers and promoting crop insurance. Leveraging industry efforts with organizations having a long-term and trusted relationship with hard to reach farmers is critical to success. Most limited resource farmers are closely associated with one or more Community Based Organization (CBO) with which they have developed a relationship of trust and confidence. With increasingly

Luz Bazan Gutierrez, Velma Perez, and Hector Franco, visited NCIS in behalf of the Rural Coalition to learn about the crop insurance delivery system.

tight budgets and limited educational resources, it is imperative we work together to achieve the mutual goal of making crop insurance available to every interested farmer.

Community Based Organizations are just what the term implies: organizations that exist for the express purpose of meeting the needs of a community of individuals bound together by some specific defining characteristics and objectives. CBO's typically range from legal entities with expressive charters and aggressive agendas, to informal groups bonding together for more simple common economic or

social purposes. Regardless of size and mission, CBO's are very effective in communicating with their members and enjoy a position of trust and stature with those whom they serve.

As the risk exposure of all farmers has increased, no group of farmers has become more vulnerable than small farmers. Many of these farmers not only lack the capital and other resources to assure their financial security, but also lack the information that could help them cope with other risks. They often lack the skills to take advantage of programs and policies designed to help them. While small farmers are diverse, there are groups who are more vulnerable and less empowered than others.

Socially disadvantaged and limited resource farmers are often outside the usual flow of agricultural information. They seldom read the agricultural publications aimed at more profitable farmers and supported by the advertisers who sell products and services to those more profitable farmers. Many of these farmers have limited English ability, and prefer to communicate in Spanish. Until very recently, the public interest in helping these farmers survive has been sporadic. Overcoming barriers and building trust has been a long and often difficult process, with mixed results. These conditions have resulted in this segment of the farming population being genuinely overlooked by some traditional educational programs when compared to the larger, more affluent farm operations.

As a group, these small, limited resource farmers tend to grow many crops that are not traded on the futures market; thus, many of the marketing tools that are successfully used by larger farmers to manage their marketing risks are not credible options for them. Moreover, the vast majority of extension publications and fact sheets dealing with marketing risks, focus on techniques centered around using the futures market. Also, many of the crops grown by these farmers have not been insurable under the Multiple Peril Crop Insurance (MPCI) program; thus they have no historical or personal experience using crop insurance and are unfamiliar with the current crop insurance program.

The good news is that the hard work and dedication of reaching these producers is beginning to payoff. As more individual producers have personal experience with crop insurance they become ambassadors for crop insurance within their own community and sphere of influence.

Socially disadvantaged and limited resource farmers are often outside the usual flow of agricultural information.

As they gain the experience of working with a dedicated crop insurance agent, a relationship of trust emerges and they become more comfortable referring friends and associates to their agent.

One CBO that is making a difference is the Rural Community Development Resources organization in Yakima, Washington. They have helped over 100 limited resource Hispanic producers enter agriculture and build successful collaborative businesses. Its Center for Latino Farmers helps beginning Latino farmers with limited English skills to establish their own family farms with the help of USDA programs. Center staff provides workshops and one-on-one training sessions to Latino farm operators who want to have access to the USDA programs; as well as assisting them in filling out the required USDA forms.

Representatives of the Rural Community Development Resources (RCDR) recently visited the NCIS office for an in-depth discussion with NCIS staff and member companies about the crop insurance industry delivery system in an effort to learn how they, and other CBO's, can help the farmers they represent avail themselves of the crop insurance program. All involved agreed that the time spent was productive and well worth the effort.

The RCDR are members of the Rural Coalition and were visiting also on its behalf to learn how the Rural Coalition and its members can best help their farmers realize the benefits of using crop insurance. The Rural Coalition is an alliance of regionally and culturally diverse community-based organizations committed to finding grassroots-driven solutions to rural needs. The Rural Coalition is working to solve a wide array of economic risks and social needs small farmers face and are genuinely interested in learning more about crop insurance and the industry's outreach activities focused on small farmers.

The private crop insurance industry is committed to delivering the crop insurance program as effectively and efficiently as possible to all farmers. Partnering with influential CBO's who have an established track record of working with farmers having little or no experience with the crop insurance industry, is a positive move. Building relationships with Community Based Organizations based on trust and mutual rewards will help ensure a long-term and solid foundation for accomplishing the goal of effectively reaching all interested farmers. TODAY

RECORD-KEEPING: ESSENTIAL TO RISK MANAGEMENT

By Dr. Laurence M. Crane, NCIS

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 and 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, you have 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 what 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. Table 1 is one representation of the categories and types of records that most successful farmers maintain for their operations. (A checklist is 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 four 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 of questions in Table 2 (refer to page 33) is provided as an example of the types of questions that 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!

TABLE 1. FARM MANAGEMENT RECORDS

Production Records

Enterprise Budgets* (Crop Budgets):

Project 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 investments (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 and 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
❑	❑	❑ _____	❑	❑	❑ _____
❑	❑	❑ _____	❑	❑	❑ _____
❑	❑	❑ _____	❑	❑	❑ _____
❑	❑	❑ _____	❑	❑	❑ _____

Resources Flow Budgets

0	1-3	4+ years	0	1-3	4+ years
❑	❑	❑ Labor	❑	❑	❑ Machinery: Harvesting
❑	❑	❑ Machinery: Seed Prep	❑	❑	❑ _____
❑	❑	❑ Machinery: Seeding	❑	❑	❑ _____
❑	❑	❑ Machinery: Cultivating	❑	❑	❑ _____

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: _____

TABLE 2. 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

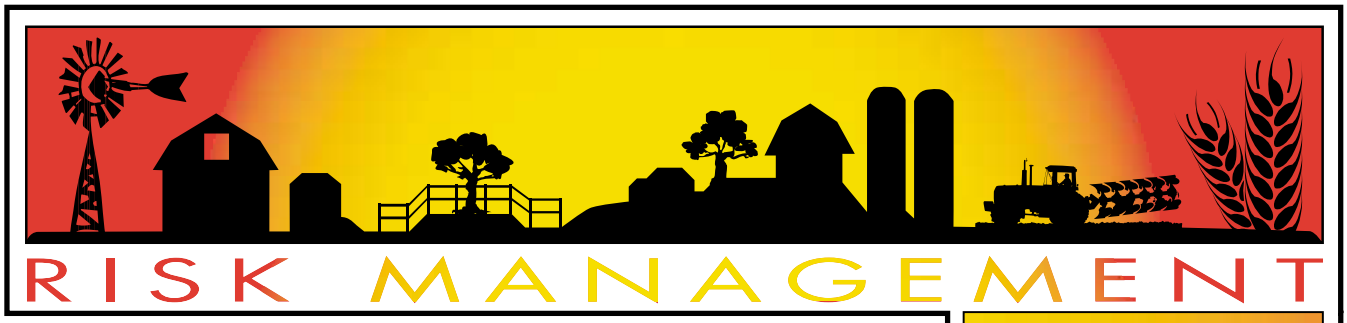
- How much risk (production, marketing, financial):
  - Can my operation prudently bear?
  - Is it currently exposed to?
  - Do I want it exposed to?
- What is my propensity for risk taking?
- Are my subsequent actions consistent?
- Is my crop insurance coverage consistent with meeting farm and family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



RISK OVERVIEW

By Dr. Laurence M. Crane, NCIS

This is the first article in a series of six that provide an overview of agricultural risk management.

Risk can be defined as the chance of loss or an unfavorable outcome associated with an action. Uncertainty is not knowing what will happen in the future. The greater the uncertainty, the greater the risk.

The most important role for a farmer is that of manager. For an individual farmer (manager), risk management involves finding the preferred combination of activities with uncertain outcomes and varying levels of expected returns.

Risk Management can then be defined as choosing among alternatives to reduce the effects of risk.

Farmers and ranchers make decisions in a risky environment every day. The consequences of their decisions are generally not known when the decisions are made. Furthermore, the outcome may be better or worse than expected. Variability of prices and yields is the biggest source of risk in agriculture. Technology changes, legal and social concerns, and the human factor itself also contributes to the risk environment for agriculture producers. The two situations that most concern agriculture producers are: 1) is there a high probability of adverse consequences, and 2) would those adverse consequences significantly disrupt the business?

BASIC ECONOMIC PRINCIPLES

There is a return to every factor of production—land, labor, capital, and management. These returns may be either positive or negative, depending upon the use to which they are put. One of the returns to management is the ability to successfully manage risk. Risk is what makes it possible to make a profit. If there was no risk, there would be no return to the ability to successfully manage it. That is to say, there is a risk-return trade-off. This means that anytime there is an opportunity for loss (risk), there is also an opportunity for profit. Because of uncertainty, profits are never certain. Farmers must decide between different alternatives with various levels of risk. Those alternatives with minimum risk may generate too little profit. Those alternatives with high risk will likely generate the greatest return but may be more risky than the farm can stand or the farmer wishes to bear. The preferred and optimum choice must balance potential for profit against risk of loss. It all comes down to management, and there are no easy answers.

STEPS TO RISK MANAGEMENT

Risk Identification

The process for managing risk is really very straightforward. First you need to identify and classify the risks you face. There is no correct way to do this, but it seems easier if they are classified along the lines of what you do. The main areas of farm management are production, marketing, and financing, thus it seems reasonable to categorize risks in these areas. There are other areas of risk such as managing human resources, coping with government change, and complying with environmental regulation.

Production Risk

Agricultural production implies an expected outcome or yield. Variability in outcomes from those that are

expected poses risks to your ability to achieve financial goals. Any production related activity or event that is uncertain is a production risk. The major sources of production risks are weather, pests, diseases, and the interaction of technology with other farm and management characteristics, genetics, machinery efficiency, and the quality of inputs. Fire, wind, theft, and other casualties are also sources of production risk.

Marketing Risk

Marketing is that part of your business that transforms production activities into financial success. Unanticipated forces, such as weather or government action, can lead to dramatic changes in crop and livestock prices. As agriculture moves towards a more global market, these forces stem increasingly from world factors. Other farmers' weather and other governments can affect your prices. When these forces are understood, they can become important considerations for the skilled marketer.

Marketing risk is any marketing related activity or event that is uncertain leading to the variability and unpredictability of prices that farmers both receive for their products, and pay for production inputs.

Financial Risk

Financial risk covers those risks that threaten the financial health of the farm business and has three basic components: 1) the cost and availability of debt capital; 2) the ability to meet cash flow needs in a timely manner; and, 3) the ability to maintain and grow equity. Cash flows are especially important because of the variety of ongoing farm obligations, such as cash input costs, cash lease payments, tax payments, debt repayment, and family living expenses.

Human Resource Risk

Human resources are both a source of risk and an important part of the strategy for dealing with risk. At the core of dealing with that risk, and that potential, is the ability to manage people.

Human resource calamities can hamper even the most carefully made and appropriate risk management decisions. Those calamities include divorce, chronic illness, and accidental death.

Legal Risk

Many of the day-to-day activities of farmers and ranchers involve commitments that have legal implications. Understanding these issues can lead to better risk management decisions.

Legal issues cut across other risk areas. For example, acquiring an operating loan has legal implications if not repaid in the specified manner. Production activities involving the use of pesticides have legal implications if appropriate safety precautions are not taken. Marketing of agricultural products involves contract law. Human resource issues associated with agriculture also have legal implications, ranging from employer/employee rules and regulations, to inheritance laws. The legal issues most commonly associated with agriculture fall into four broad categories: 1) appropriate legal business structure, and tax and estate planning; 2) contractual arrangements; 3) tort liability, and, 4) statutory compliance, including environmental issues.

Risk Measurement

Probabilities are simply a way of expressing the chances of various outcomes. Weather forecasts use probabilities. For example, they may indicate a 20 percent chance of rain or a 40 percent chance of snow. At the start of a football game, a coin is flipped. What are the chances or probabilities that it will come up "heads?" Fifty percent, or one half. The chances for "tails" are exactly the same.

Variability of outcomes is generally associated with risk, and typically riskier situations have greater variability of outcomes. The average outcome is the most frequent or most likely if outcomes are normally distributed, but the average does not provide information about variability. The range—the highest and lowest values—combined with the average does provide some information about variability. However, it is difficult to make comparisons of variability between crops or prices.

Risk Capacity

Risk management strategies are also affected by an individual's capacity or ability to bear (or to take) risk. Simply stated, risk bearing capacity is directly related to the solvency and liquidity of one's financial position.

Risk bearing ability is also affected by cash flow requirements. Cash flow requirements are the obligations for cash costs, taxes, loan repayment, and family living expenses that must be met each year. The higher these obligations as a percentage of total cash flow, the less able the farm business is to assume risk. The best source of historical production and marketing information is (or should be) the farm records maintained for the farm business. The records may be supplemented and complemented by off-farm information, forecasts, and predictions. But there is no substitute for farm record data.

Risk Willingness (Preference)

Risk averse farmers are the most cautious risk takers, but they do take some risks. They lose because they miss economic opportunities to profit.

Risk neutral farmers understand they must take some chances to get ahead, but recognize that there are degrees of risk in every situation. Before making a decision or taking action they gather information and analyze the odds. They try to be realistic, recognize the risks, and try to reduce risks to acceptable levels.

Risk lovers are individuals who enjoy risks as challenging and exciting and look for the chance to take risks. Many farmers may be in this category with respect to their marketing plans. As long as financial survival is not at stake, they may enjoy the adventure of playing the market. Many speculators are in this category. Some close their eyes to risk, ignore facts, and go ahead, and commonly fail because they refuse to take precautions.

Set Risk Goals

A meaningful goal is specific, measurable, challenging but realistic, time specific, written, and is performance based. If one achieves all conditions of a specific measurable goal, confidence increases and satisfaction results. If a measurable goal is consistently missed, objective analysis can occur and adjustments can be made to improve the likelihood of success.

It is important to set performance, not outcome goals. Care should be taken to set goals over areas where one has as much control as possible. Nothing is as discouraging and counterproductive to goal setting as failing to achieve a goal for reasons beyond your control. If goals are set on performance or skills to be acquired, then control over achievement is maintained.

Identify Tools

Because of the multiple sources of risk, comprehensive strategies that integrate several responses to variability are often necessary for effective risk management. The particular combination used by an individual farmer will depend on the individual's circumstances, type of risks faced, and risk attitudes. Some risk responses act primarily to reduce the chance that an adverse event will occur, while other responses have the effect of providing protection against adverse consequences should the unfavorable event occur. Farmers find many different ways to implement these principal risk responses.

Select Professional Assistance

Even though risk management is sometimes challenging, there are many professional resources available and no farmer should feel isolated. Extension educators are expected to provide the educational programs and leadership to help all those who desire to learn. Others are available and well qualified to help, depending upon the specific need.

Use common sense in selecting professional help and ask for references and credentials as appropriate. Rely on the experience of other farmers and/or trusted friends/clergy in seeking recommendations of who to use.

REFERENCES

There are numerous sources of outstanding materials on all aspects of farm risk management. Contact your local Cooperative Extension office for assistance and direction.

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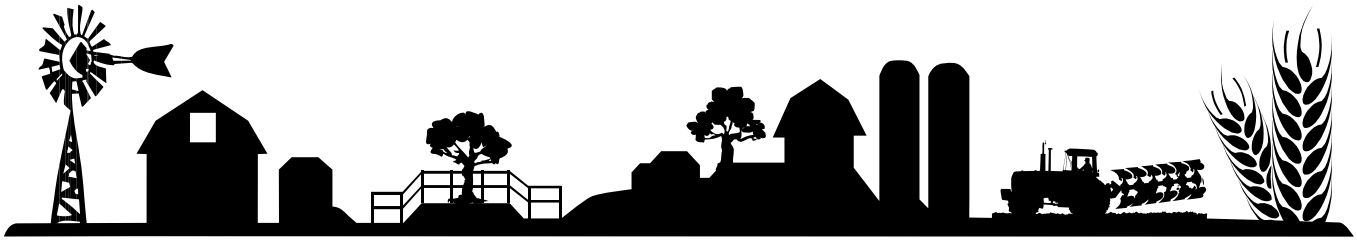
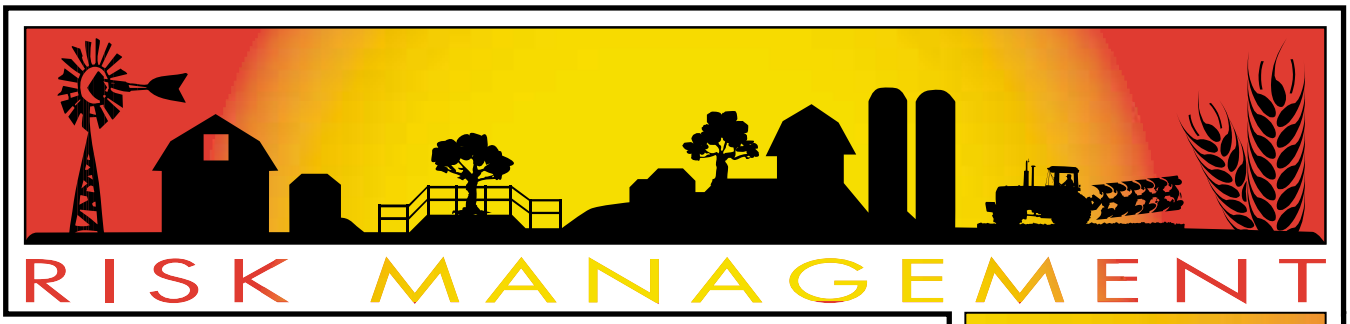


RISK OVERVIEW



PRODUCTION RISK

By Dr. Laurence M. Crane, NCIS

This is the second article in a series of six that provide an overview of agricultural risk management.

Any production related activity or event that is uncertain is a production risk. Agricultural production implies an expected outcome or yield. Variability in outcomes from those expected creates risks to your ability to achieve financial goals.

Farmers have three choices in dealing successfully with production risks. One, they can control or minimize risk through management practices by doing a better job of what they currently do. Two, they can reduce production variability by making changes such as diversifying, integrating, applying technology, etc. Or three, they can transfer production risk to someone else through contracting, purchasing insurance, etc.

For decades, agricultural risk has been synonymous with production risk. Reducing variability in expected yields has been a major focus of farm managers. Over time, improvements in technology and production practices have helped decrease agronomic risks and increase yields. For example, genetic engineering has produced new seed varieties that are disease and drought resistant, commercial petroleum-based fertilizers were manufactured increasing yields, effective herbicides and insecticides were developed controlling weeds and bugs, and a whole host of improved production and management practices have been disseminated.

The same underlying changes that are driving the increase in economic risks are also changing the nature of production risks. Not only is yield variability still a formidable production risk, but also the industrialization of agriculture is impacting the entire agricultural production sector. Changes that initially started in the livestock sector are now starting to revolutionize the grain industry. These structural shifts mean that farmers are vulnerable not only to the vagaries of weather and Mother Nature, but are vulnerable to economic forces that exacerbate traditional production risks.

MANAGEMENT ALTERNATIVES

Farmers have three choices in dealing with production risks.

The first is to essentially continue farming as before, but try to control or minimize risk through management practices. This includes such things as being more timely in performing operations, practicing preventative maintenance, and monitoring production activities more closely to ensure problems are detected early enough to take corrective measures.

The second choice is to reduce production variability. Generally, this means reconfiguring the farm by adding or changing enterprises through diversification or integration, and applying improved technology as appropriate. Remaining flexible is essential to being able to respond to changing economic conditions more easily. A big part of reducing production variability is to actively plan for the future and prepare a contingency plan so one knows what to do when undesirable events take place.

The third alternative in managing production risk is to transfer some or all of the risk to someone else. Contracting and insurance are two effective tools to transfer risk.

CONTROL OR MINIMIZE RISK

There are numerous examples of how risk can be minimized or controlled through improved management practices. Chemical and fertilizer use is all about controlling (or reducing) the variability in production. Irrigation is very effective in minimizing the effects of low rainfall or drought.

Timeliness of operations has a very large impact on most production activities. Frequently, about the only difference between successful farmers and less successful farmers, who engage in the same production enterprises, is that the successful farmer is more timely in getting things done.

Practicing preventative maintenance is typical of farmers who do a good job of managing production risks through minimizing or controlling as best as possible the likelihood of negative events taking place. Because some risks are so difficult to anticipate and control, controlling those risks one can, takes on added importance.

REDUCE VARIABILITY

Diversification

Diversification is an effective way of reducing income variability. It is the combining of different production processes. Effective diversification occurs when low income from one enterprise is offset by satisfactory or high incomes from other enterprises. It typically reduces large year-to-year variations in income and may ensure adequate cash flow for meeting production costs, debt obligations, and family living needs. However, acquiring new overall knowledge about an alternative business, new crop production expertise, and new equipment for a new crop may be costly. Expanding into new areas or experimenting with new crops will increase capital investment requirements. For instance, diversification can include different crops, combinations of crops and livestock, different end points in the same production process (such as different selling weights), or different types of the same crop.

Through crop diversification, as a production risk management tool, farmers and ranchers may acquire another marketing tool, providing another way to enhance profitability. Direct marketing of the diversified crop to consumers is becoming much more common, including farmers' markets, roadside stands, and community-supported agriculture arrangements.

The benefits of diversifying income sources depend on the variability of returns faced by a producer. Diversification can also be achieved by having several income sources, such as on-farm businesses and off-farm income (employment, investments or savings), to help counter negative fluctuations in farm income.

Flexibility

Farmers commonly attempt to maintain flexibility in their operations as a production response to variability. Increasing specialization of livestock facilities and equipment limits flexibility among types of livestock, and often there is a similar situation with respect to crops. Farmers are likely to maintain flexibility more in their marketing and financial decisions than in the type and size of production activities. Often the costs associated with flexibility in production are higher than most farmers are willing to incur.

Integration

Vertical integration includes all of the ways that output from one stage of production is transferred to another. Vertical integration on the farm is accomplished by altering the mix of enterprises the farm is engaged in. It is more common in livestock and specialty crop industries than in field crops because field crops typically require more processing, and cost effective integration is difficult to achieve except on a large scale.

To a certain degree, vertical integration runs counter to the concept of specialization. The early farms of pioneer settlers were in essence totally vertically integrated. Every aspect of the production process was connected and performed on the single farm. Most farms today are a blend of integration and specialization. For example, a modern family dairy farm typically engages in the integrated enterprises of feed production, milk production, and replacement heifer production. These enterprises are easy to integrate and generally make sense. However, some dairy farmers may specialize to a greater degree on milk production and elect to purchase all of their feed and replacement heifers.

Apply Technology

There are countless opportunities to apply new technology in managing production risk on the farm. This includes the physical technology (high tech) often referred to as precision agriculture. Precision agriculture takes advantage of advances in computers and mechanical engineering to make better, more efficient, machines and equipment.

Biotechnology research continues to advance on many fronts with the goal of making crop production more efficient. Scientists are developing crop varieties that can withstand environmental stresses such as drought, flood, frost, or extreme temperatures. A related area of research is adapting crops to regions where they are not normally grown because of climate, altitude, or rainfall. Biotechnology is also being used against plant pests such as weeds, insects, and diseases. Animal agriculture also is being affected by biotechnology. Safer, more effective vaccines are already in use. Biotechnology is being used to develop

diagnostic tests for a wide range of diseases and viruses.

The key to applying technology in managing risk is to do so in a way to lower total farm risk. Sometimes new technology may increase risk, or the increased cost for the corresponding reduction in risk is prohibitive.

TRANSFER RISK TO SOMEONE ELSE

Contracting

A contract is usually defined as a written or oral agreement between two or more parties involving an enforceable commitment to do or refrain from doing something. In agriculture, contracts between farmers and agribusinesses specify certain conditions associated with producing and/or marketing an agricultural product. By combining various market functions, contracting generally reduces participants' exposure to risk. In addition to specifying certain quality requirements, contracts also can specify price, quantities to be produced, and services to be provided.

Farmers enter into contracts for various reasons, including income stability, improved efficiency, market security, and access to capital. Processors enter into contracts to control input supplies, improve responses to consumer demand, and expand and diversify operations. All of these reasons reflect efforts to bring a more uniform product to market.

Production contracts can take many forms, depending upon the commodities being contracted and the economic needs of the parties entering into the contract. Generally, producers give up some management independence and decision making for a more stable income and less variability.

Insurance

Insurance can be an effective mechanism of transferring large risks to someone else. To be insurable, objects must be important enough to cause economic hardship to the insured if they are damaged and of sufficient number and quality to allow a reasonably close calculation of probable loss. Also, the potential loss must be accidental and unintentional, and, when an adverse event occurs, the amount of the loss must be capable of being determined and measured.

By definition, insurance is the means of protecting against unexpected loss. Everyone has insurance; either you buy insurance from an insurance company, or you insure yourself. When you self-insure there are no premiums to pay, but in the event of a loss you pay the full amount. In other words, with self-insurance you have a policy with a 100 percent deductible.

The three types of insurance that all farmers should carry are: 1) property and casualty insurance, 2) health, life, and disability insurance, and 3) liability insurance.

Crop insurance is a very important type of property insurance that can be used very effectively in conjunction with marketing plans to also reduce marketing risk. Crop insurance can guarantee a level of production, thus removing the risk associated with forward pricing or selling bushels that are yet to be produced. Crop insurance will provide the bushels to deliver on a contract should the insured producer suffer a loss prior to harvest.

Medical expenses due to a serious illness or injury can wreak economic havoc on a family. Farmers are more likely to be disabled than killed in accidents and a good disability policy is as important as life insurance and is a good risk management tool.

A liability policy protects a farmer against claims or lawsuits brought by persons whose property or person has allegedly been injured by the farmer' s negligence.

REFERENCES

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MARKETING RISK

By Dr. Laurence M. Crane, NCIS

This is the third article in a series of six that provide an overview of agricultural risk management.

***Marketing Risk** is defined as any marketing related activity or event that in uncertain leading to the variability and unpredictability of prices farmers both receive for their products, and pay for production inputs.*

***Marketing** includes all of the activities that help coordinate production with consumer demand. In this framework, marketing is defined as the best set of economic and behavioral activities that are involved in coordinating the various stages of economic activity from production to consumption. Understanding this definition is important because there are opportunities and risks associated with each of these stages of economic activity.*

Success in marketing is largely determined by taking advantage of opportunities. It is essential to understand how markets function, prices are set, and decisions are made.

Marketing is that part of your business that transforms production activities into financial success. Unanticipated forces, such as weather or government action, can lead to dramatic changes in crop and livestock prices. As agriculture moves towards a more global market, these forces stem increasingly from world factors. When these forces are understood, they can become important considerations for the skilled marketer.

Marketing Principles

There are some basic marketing concepts or principles that must be followed regardless of the commodity being marketed, or size of the farm operation. Each stage of the marketing system (production, assembly, processing, wholesaling, retailing, consumption) enhances the desirability of the good to the consumer by producing a form, place, time, or possession utility. All of these conditions need to be satisfied to meet the desire of current consumers for convenience and service. Being aware of these utilities that drive product desirability to consumers, farmers can do a better job of meeting these requirements.

The form utility comes from having the product in the right form for the consumer to gain the maximum utility from its consumption. The place utility comes from having the product where the consumer wants it. The time utility comes from having the product when the consumer wants it. Possession utility comes from transferring physical possession and ownership in the fashion the consumer desires.

Economic Principles

Marketing decisions have economic consequences. In order to avoid negative consequences and take advantage of positive economic consequences it is helpful to understand some basic economic concepts and principles as they apply to marketing.

Returns to factors of production: Every factor of production earns a return, including management and marketing skill.

Price is set by the market: We live in a free market society where prices are set

in the marketplace. Individual producers are price takers rather than price makers. Understanding how the market sets prices allows one to take advantage of relatively favorable prices.

Factors that influence demand: Understanding what factors determine demand is important because then one can deliver products that have the characteristics of high demand.

Market integration: This is somewhat related to the general concept of the returns to factors of production in the sense that every step along the chain, from production inputs to final consumer consumption, requires a payment. The more stages of this chain you control, or provide, the more the payment.

Elasticity: This measures the sensitivity of a product to price and income. If a product is very sensitive to price, a slight increase in price will be met by a large decrease in demand.

Market Coordination Contract

Changes in marketing have increased the payoff from closer coordination of successive stages of production in order to assure that products meet the specifications of the market at each successive stage. Products that do not meet the specifications are sold at a lower price.

Vertical coordination is when one firm controls two or more stages of production. It is occurring at many levels and in multiple ways. Contracting is just one way vertical coordination is accomplished.

Vertical integration is one method of coordination, which involves control exercised by ownership of two successive stages.

Contract coordination occurs when an individual or firm (contractor) establishes a legal agreement with a producer that binds the producer to specific production or marketing practices. However, one individual or firm does not own all of the inputs involved in production or marketing and different individuals own and contribute various inputs into the coordinated system.

Horizontal coordination is when two or more units of production within the same economic stage are brought together under common management. Large companies use horizontal coordination to achieve economies of scale in large quantities of production, and use vertical coordination to control multiple stages.

Marketing Decisions

There are six basic decisions with each marketing activity. The answers to these questions/decisions determine the outcome.

1. When to price? This decision requires determining the time when the price for the particular product or input will be established. This could be at delivery or at some other time.
2. Where to price? The number of market outlets has decreased for some commodities in some areas of the country, but have increased in others. Contracting opportunities have also changed where products are priced.
3. What form, grade, or quality? Some commodities are very price sensitive to quality issues. Other commodities have no recognized, uniform standards. When contracting, this needs to be explicitly stated.
4. What services to use? This is more important with some commodities than others. Dealers offering similar products distinguish them by added service components.
5. How to price? This involves choosing among various alternatives to set the price. Commodities that have multiple marketing alternatives (cash and futures) have more pricing alternatives. Generally, pricing a product at delivery results in lower prices and lower profits.
6. When and how to deliver? This is usually closely connected to how the decision to price is set. Transportation and storage costs need to be considered, as do impacts on quality.

Marketing Alternatives

Marketing is an activity that requires effort because there are so many different options available and issues to consider. The simplest marketing is to just market at harvest to the elevator or action barn or similar outlet. Doing this removes the thinking and planning; but it also removes much of the profit.

There is no single "best" way to market that works for everyone or for every situation. About the only definite is that by not planning a marketing strategy or approach, one becomes a total price taker. By planning and working at marketing, one can generally improve price and profit.

The objective for everyone should be to get the highest return on the factors of production they have put into the product (not necessarily the highest price), reduce the variability in income so they can meet all obligations and needs for family living, and keep risk exposure at the level the farm can withstand and that they are interested in bearing.

When looking at various marketing alternatives available, there are many factors and issues to consider. At a minimum, consider:

Availability: Is the market option realistic given its availability?

Cost: What is the cost of this alternative?

Complexity: How complicated; do I understand it well enough to be successful?

Level of Risk: How much risk am I going to be exposed to?

Type of Risk: What is the source of risk; am I able to manage this risk effectively?

Net Selling Price: Will I make a profit after I have covered my costs or is my net price lower than with a different alternative?

Market Outlook: What is the expected supply and demand condition in this market?

Financial Situation: Do I have the financial position to accomplish this marketing strategy?

Constraints: What is there that can/will potentially prevent me from succeeding and how do I plan to overcome these obstacles?

Niche or Specialty Marketing

Niche marketing can be thought of as providing a product to a small segment of consumers. Some important marketing management fundamentals must be considered and implemented to make this alternative work. These considerations center around the customer, the product, place, promotion, and price. Once these concepts have been considered, one should have a good idea of how to develop a profitable niche marketing strategy. A marketing strategy specifies a target market and the mix of product, place, promotion and price to be used to satisfy customers and make a profit.

At the center of having a profitable niche marketing strategy is the customer. Consumer appeal means the product must offer significant and desirable benefits to the consumer. The best question to ask yourself is, "What attributes does my product offer consumers that they can not already get?"

DIRECT TO RETAILERS AND CONSUMERS

One popular marketing option that allows farmers to receive a higher return for their crops is direct marketing. Instead of paying packers, shippers, and brokers to market their crops, direct marketing allows farmers to sell directly to consumers. Some of the benefits include cash sales, immediate payment, and more control over prices. Barriers that farmers may encounter include insurance liabilities and zoning restrictions.

Five popular direct marketing alternatives are to: 1) sell directly to grocery stores and restaurants; 2) set up a roadside market and sell to passing motorists; 3) join a Farmer's Market; 4) arrange for consumers to come on the farm and harvest their own purchases; and, 5) Community Supported Agriculture (CSA) enterprises where local consumers support local producers in a cooperative type of arrangement.

Marketing Plan

Managing marketing risk begins with a marketing plan. A marketing plan is the way you have decided you will market your production after evaluating your options and deciding what will be the best way to meet your goals and objectives. It sets the specific actions you will take and the steps to reach your goals. It requires commitment and discipline to create and follow a marketing plan. Marketing involves emotion, science, discipline, and analysis. The best plan will fail without the discipline to stay on track.

A marketing plan alone does not guarantee success, but it does indicate that many of the factors that affect the profitability and continued survival of the operation have been given consideration. A marketing plan is usually part of a larger business plan that includes production, financial, staffing and management plans.

Marketing is an essential element of small and large agricultural enterprises. The marketing environment exerts a strong influence on the nature of the farm. The crops and animals grown are determined less by a farmer's personal tastes than by what the market will absorb at a price the farmer is willing to take.

A good market plan for direct marketing broadly aims to define the consumer, the products or services they want, and the most effective promotion and advertising strategies for reaching those consumers.

References

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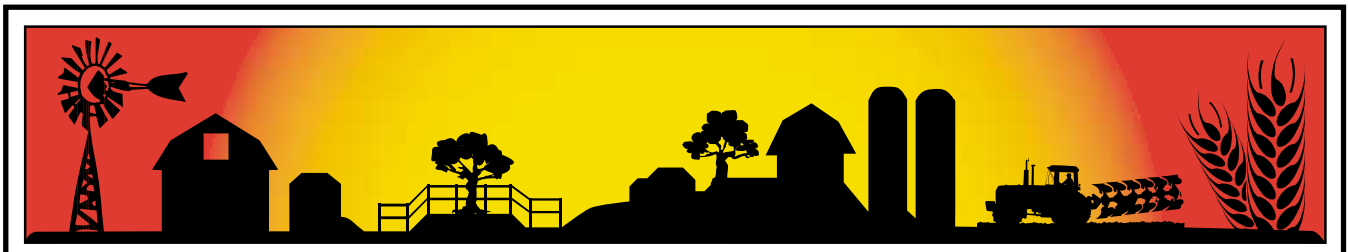
MARKETING RISK



FINANCIAL RISK

By Dr. Laurence M. Crane, NCIS

This is the fourth article in a series of six that provide an overview of agricultural risk management.

***Financial Risk** covers those risks that directly threaten the financial health of the farm business. Financial risk has three basic components: 1) the cost and availability of debt capital; 2) the ability to meet cash flow needs in a timely manner; and, 3) the ability to maintain and grow equity.*

The capital structure of any business includes both debt (borrowed) and equity (owned) capital. Both debt and equity face risks. Debt capital can be more risky because of the obligations to others that are part of the financing agreement, or loan document. Cash flows are part of financial risk and are especially important because of the variety of ongoing farm obligations, such as cash input costs, cash lease payments, tax payments, debt repayment, and family living expenses.

Record Keeping

Effective management depends on accurate measurement. In fact, if it can't be measured, it can't be effectively managed.

A set of well-maintained financial records is an absolute necessity to maintaining financial control of a farm or ranch. Accurate information is critical in evaluating past performance and in planning for future accomplishments. Financial risk management is not achieved directly by maintaining comprehensive records. However, records do provide much of the information needed to understand critical financial risks. Even small farms need a basic level of record keeping.

A common misconception by some is that farm records are kept only to report taxes. But a successful farm business needs records for many other purposes too. Some of the most common uses for good records are: 1) measuring operating and financial performance, 2) supporting loan applications, 3) arranging for insurance coverage, 4) estate planning and valuation, 5) analyzing investments in depreciable assets, 6) measuring the profitability of individual enterprises, 7) monitoring production inventories, and, 8) developing sound marketing plans.

Farm record systems vary in the amount of information collected, the method of recording data and the structure of final reports. Every farm manger must determine how much information is needed for management purposes, what accounting methodology to use, and what system will provide the desired information.

Record keeping starts with financial and physical inventories and includes those records needed to successfully manage the farm. This includes production records and enterprise budgets, financial records (income statement, balance sheet, cash flow budget, family living budget), ownership/personal records including asset inventories, ownership arrangements, and estate plans and documents.

Financial Statements

Essential financial statements include the balance sheet and statement of owner's equity, income statement, and projected and actual cash flows. These records provide a financial history of the farm and the data needed to adequately calculate financial performance measures.

Balance Sheet

The balance sheet is also known as a net worth statement and is a financial snapshot of the farm business on a specific date. It shows all assets, liabilities and owner equity or net worth. The balance sheet usually segregates assets and liabilities into current, intermediate and long-term (or fixed) categories. Ideally, it should also reflect cost versus market valuations for assets, debts and equity. The balance sheet is critical for measuring liquidity and solvency.

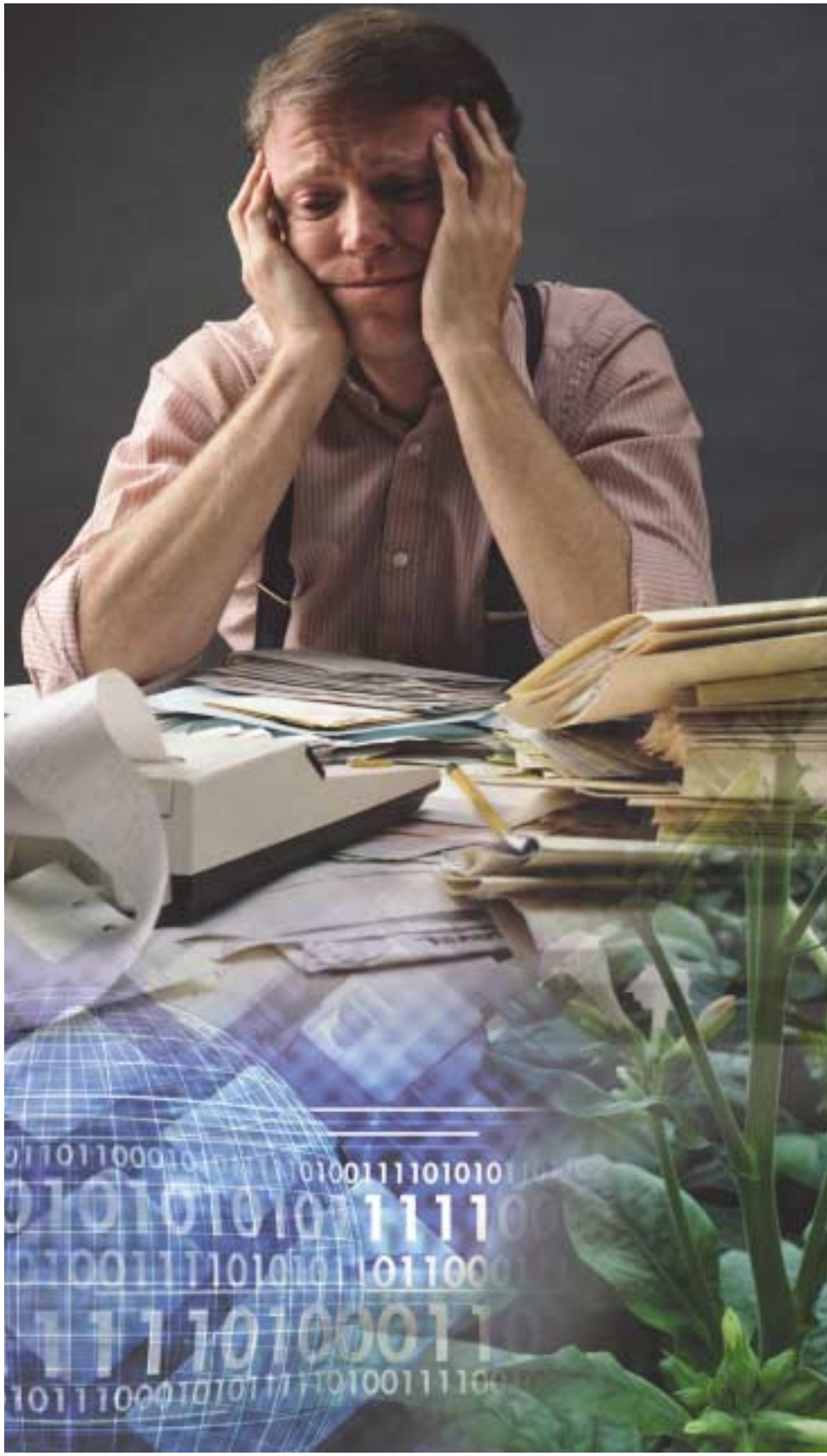
Income Statement

The income statement is also known as a profit and loss statement. This report shows the net income for the farm during the accounting period. It includes such elements as income generated from farm production, operating and overhead expenses, depreciation expense, gains or losses on disposal of capital assets, and non-farm income and expense. It can be prepared on either a cash or accrual basis and enables the producer to identify various measures of profitability and financial efficiency.

In summary, the income statement is the document that correctly measures net farm income. It is essential to financial analysis, loan documentation, and filing tax returns. It shows how profitable the farm is.

Owners Equity

A key indicator of farm financial progress over time is the change in owner equity. Changes in owner equity can result from earnings, withdrawals, increases and decreases in the market



value of assets, or personal net worth changes.

The statement of owner equity is relatively new as a financial statement but the concept has been used for years. It formally links together beginning and ending balance sheets and the corresponding income statement. In doing this it reconciles the information they contain and shows the impact family living withdrawals have on the farm. It also helps to separate the effects of inflation on asset values from the effect of earnings.

Cash Flow Statement

Effective financial control of the farm business requires thorough knowledge of the sources and uses of cash in the business. Some farms that have both a strong balance sheet and income statement find it difficult to generate cash when it is needed to meet cash commitments.

The cash flow statement, also known as a "sources and uses of funds" or a "flow of funds" statement, summarizes all cash transactions affecting the business during a given period of time such as a month, quarter, or year. It provides a means of following movements of cash in the business. Neither an income tax return nor an income statement provides the same information as a cash flow statement.

A cash flow statement can be a statement of past performance or a budget for future plans. As a statement of past performance, a cash flow statement shows how and when cash was generated and used to pay for inputs and capital items, family living expenses and loan payments. As a budget of future plans, a cash flow statement is essential for evaluating your business' borrowing needs and repayment capacity.

Cash flow analysis includes a more complete accounting of debt transactions by showing principal payments and proceeds of new loans. An income statement only shows interest payments.

A complete cash flow statement includes non-farm or ranch business items such as income taxes and non-farm or ranch income. These items may be omitted from an income statement. Cash withdrawals for such things as stock dividends and family living expenses are usually included in a cash flow statement. An income statement does not include family living expenses or dividends.

Budgeting

A budget can be viewed as a schedule of expected returns and costs. A budget is an estimate and plan for what is going to happen. Seldom does anything turn out exactly as planned, or budgeted, but it is essential to anticipate and estimate what is expected to happen. Budgets are a must when seeking financing from lenders and are essential to managing any activity, especially farming.

Enterprise Budgets

An enterprise budget is a budget prepared for a single enterprise. An enterprise is defined as any portion of the farm business that can be separated from others by accounting procedures according to its receipts and expenses. Enterprise budgets project 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. 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 price.

Enterprise budgets form the basis for constructing whole farm, partial, and cash flow budgets. An enterprise budget includes all of the expected costs and returns associated with producing one enterprise in a particular manner. They are usually constructed on a per unit basis (such as per acre) to facilitate comparisons among alternatives.

Partial Budgets

Partial budgets are used to estimate the change that will occur in profit or loss from some change in the farm by considering only those items of income and expense that change. They are easy to construct, and very helpful in decision-making.

Whole Farm Budgets

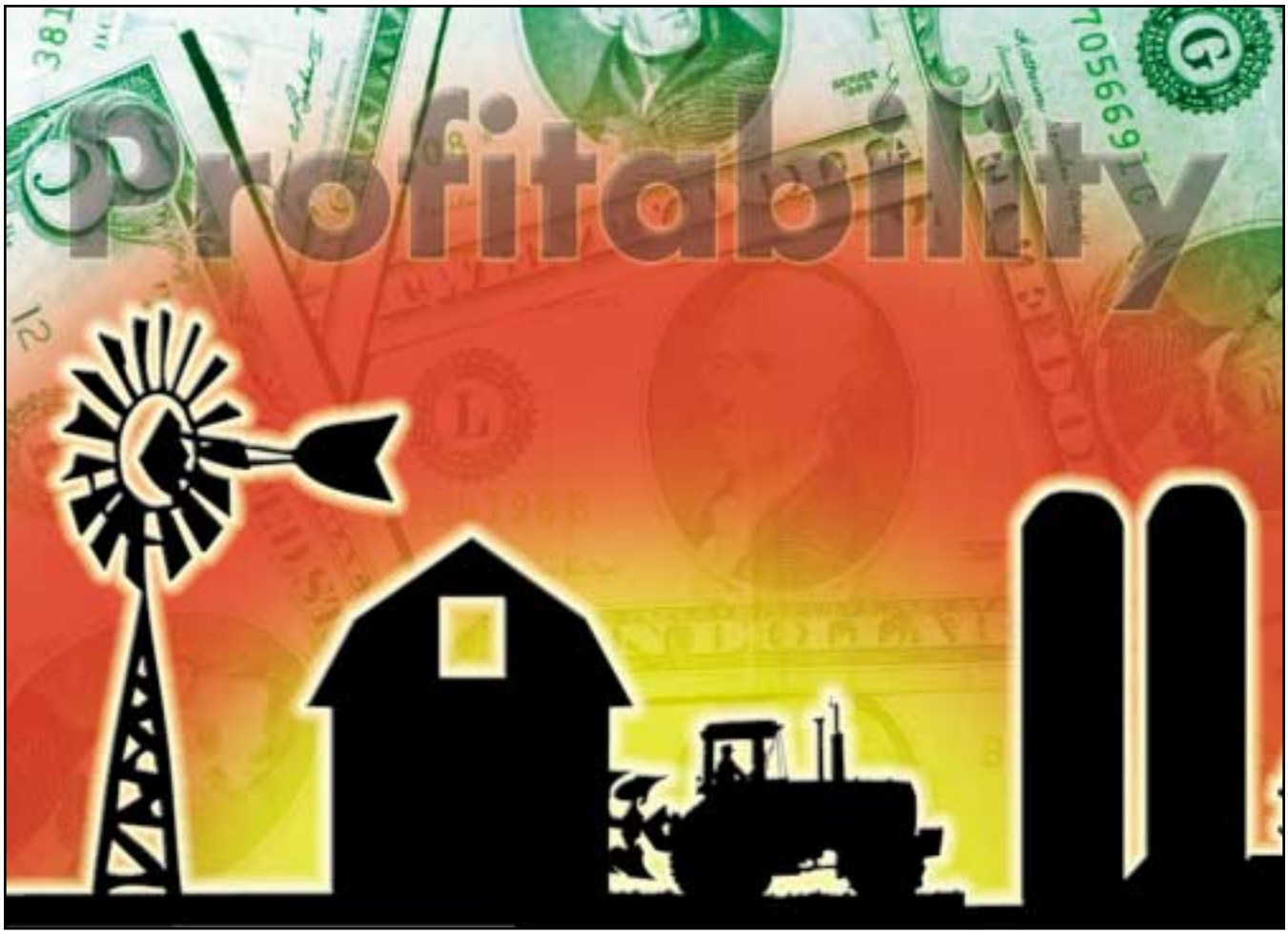
A whole farm (or complete) budget is a physical and financial plan of the entire farm or ranch business designed to help plan and organize every aspect of the business. It is the most appropriate tool to use when alternative courses of action will change the size and/or organization of your business, or when these changes will have a long-term impact on your business in terms of enterprises, finances, etc.

Whole farm budgeting is a tool to analyze major changes in your farm business. The process includes estimating total receipts, total costs and resultant net earnings for each alternative, so you can see which alternative has the best chance of achieving satisfactory levels of profitability, liquidity and solvency.

Family Living Budgets

A family budget is just exactly what the name says, a budget for family living. It includes all sources (farm and non-farm) and estimated amounts of income that is used by the family during the year. Meeting the needs of family living are critical to survival, and when the family budget is in order it makes it easier to operate the farm. For this reason family budgeting is the foundation of a sound financial management plan and essential to success of the farm.

When used in conjunction with historical records of actual spending, a family budget pinpoints and identifies unnecessary spending and areas where actual costs may be higher or lower than previously thought.



Financial Performance Measures

The main issues of managing financial risk center around the liquidity, solvency, and profitability of a farm business. Liquidity is the ability to meet cash obligations in a timely manner. Solvency is the ability to convert all assets to cash to retire the debt and still have some left over, thus solvency is a measure of the amount of debt relative to equity in the business. Profitability is a measure of the extent to which the resources on the farm are put to productive use and are able to generate a positive return (profit).

Liquidity

Liquidity measures the ability of a farm business to meet financial obligations as they come due in the ordinary course of business, without disrupting the normal operations of the business. Financial ratios and values that measure liquidity are calculated from balance sheet data.

Solvency

Solvency measures the amount of debt and other expense obligations used in the farm business relative to the amount of owner equity invested in the business. Solvency ratios provide an indication of the business' ability to repay all financial obligations if all assets were sold, as well as an indication of the ability to continue operations as a viable farm business after a financial adversity. Financial ratios that measure solvency are calculated from balance sheet data.

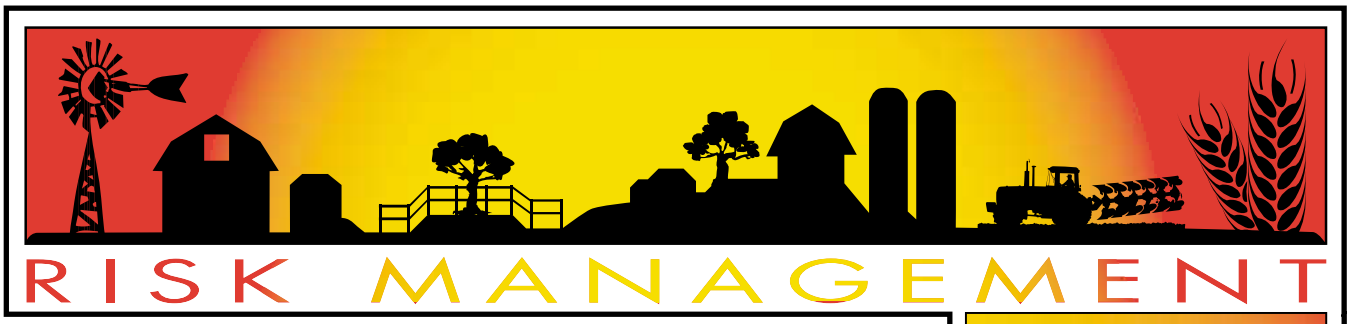
Profitability

Profitability measures the extent to which a farm business generates a profit from the use of land, labor, management, and capital. Financial ratios and values that measure profitability are calculated from balance sheet and income statement data.

References

There are numerous sources of outstanding materials on all aspects of farm financial management and financial risk. Contact your local Cooperative Extension office for assistance and direction.

The Risk Management Education web site maintained by the University of Minnesota is an excellent starting point. This vast and current library of information can be accessed at: **www.agrisk.umn.edu.** TODAY



HUMAN RESOURCE AND LEGAL RISK

By Dr. Laurence M. Crane, NCIS

This is the fifth article in a series of six that provide an overview of agricultural risk management.

***Human resource risk** refers to any event relative to the human element of the farm that is uncertain. Because the character, health and behavior of people are unpredictable, the farm is exposed to serious risk. Human resources are both a source of risk and an important part of the strategy for dealing with risk.*

***Legal risk** is any activity or event that threatens the legal standing of the farm or puts the farmer in legal jeopardy. Laws and governmental programs that reflect society's changing attitudes create risks for farmers.*

HUMAN RESOURCE RISK

The human element of the farm is often the most difficult to manage, and as agriculture production continues to become more technical, the importance of maintaining good human resources is intensified.

The issues surrounding the human resource risks of the farm can be divided into six general categories: 1) maintaining and guarding the health and safety of people on the farm; 2) avoiding and dealing effectively with common family problems; 3) working with farm partners; 4) dealing effectively with life changes such as marriage and divorce, illness and death; 5) meeting the educational and training needs of the people on the farm; and 6) managing farm labor.

Health and Safety

The best and most effective safety risk strategy is to ALWAYS think and act with safety first in mind. Preventive action is the only way to avoid getting hurt. Do not remove guards, shields, and other protective covering from equipment. Anticipate the potential result of your unsafe actions. Wear safety gear. There are many hazards to children living on farms and in rural areas—hazards that are attractive, fun, dangerous and deadly.

When using chemicals, follow the instructions exactly as stated on the label and do not take short cuts.

Animals are unpredictable and may become hostile if frightened or threatened. Respect electricity and be aware of all overhead wires.

Dealing with Common Family Problems

Life on a family farm can be hectic and at times seem out of control. Paying attention to both family and business concerns is not easy. Family rules and practices about what to talk about and what to keep quiet may limit discussion of important issues.

Financial stress and worries exact a heavy emotional toll. It is human nature for most to withdraw at the very time when they should be reaching out for support and help. Some pull back when they need to pull together; this is human nature.

Maintaining a balance in your life is especially helpful in combating these human risks. Things get out of focus in a hurry when we withdraw. Maintaining balance and learning to relax and relieve pressure is essential to your own health, happiness and the health and happiness of your family and business.

Neglecting family responsibilities sends the wrong message to the wrong people. Keep your goals realistic and follow the golden rule. The most valuable resources you have are those you live with. Nurturing these resources can pay important dividends.

Working with Farm Partners

Healthy relationships within the family are essential and often difficult to achieve. This is because we are all so different as human beings. Our personalities and human strengths and weaknesses are just that—human. However, the success of the farm as a business depends largely upon the ability of the human resources to make the most of all the resources available to the farm, including themselves. The more people involved in the farm, the more opportunity for disagreement, simply because there are more personalities and opinions to accommodate. On the positive side, there is also opportunity for more input and critical review of important decisions.

When there is lack of unity in purpose, or worse, total disunity, the farm is at serious risk. It is important to take the corrective action necessary to ensure unity of farm purpose. This is best accomplished by setting farm goals that are consistent with personal goals.

Maintaining healthy relationships takes time and is likely the hardest aspect of farming together. If farming together is not possible due to a variety of personal reasons, then don't. Staying friends as family members is more important to most people than business success at the expense of family relationships.

Dealing with Life Changes

Some changes are preventable, but most aren't. Regardless, change provides an opportunity for growth and improvement, but also introduces uncertainty and risk.

Marriage is a type of partnership that requires constant work and nurturing. When marriages fail, for whatever reason, all involved pay a heavy price in many respects. Few farm businesses can survive a divorce without serious risk of failure.

Illness and death are disruptive and costly emotionally and financially. When human resources are unable to produce, the farm suffers. Especially difficult, are those situations where key institutional knowledge and decision-making skills are lost. Keeping records, and cross training within the farm, are good risk management strategies in the event of such tragedies.

Exiting farming is more difficult for some than it was to enter; and entering isn't easy. It takes time and planning to properly transition to new management for the farm, and to new habits and lifestyles for those exiting. Don't put off these important issues. It is never too early to start and it is never too late to look to the future.

Forced transition, either due to health or financial requirements, is usually traumatic. Seek professional help and counseling from clergy and/or other social service experts. They can truly help smooth the transition and give hope when all seems hopeless.

Education and Training Needs

Managing a farm is a very difficult occupation. The changing nature of the agricultural sector is towards specialization and the use of new technologies and special skills. The legal risks and responsibilities associated with owning and operating a farm continue to grow at a rapid pace. The only way to cope and succeed in this environment is to be willing to learn, adapt, and apply.

The training and cross training of others involved in the farm is a good risk management strategy. Each person associated with the farm needs to ask and answer this question: "If I was unable to do my job (my responsibilities) on the farm, who could and would do it?"

Managing Farm Labor

Farm labor management involves hiring and keeping quality farm labor. The goal is to use labor effectively so that increased costs can be justified.

Adding an employee brings a number of additional responsibilities, liabilities and legal requirements. Some regulations apply to all employers, while others exempt small employers or various types of employment. The number of different government agencies that enforce laws and regulations makes it difficult to ensure compliance with all of them. Seek competent professional legal advice to ensure you comply with all regulations.

LEGAL RISK

Many of the day-to-day activities of farmers and ranchers involve commitments that have legal implications. Understanding these issues can lead to better risk management decisions.

Legal issues cut across other risk areas. For example, acquiring an operating loan has legal implications if not repaid in the specified manner. Production activities involving the use of pesticides have legal implications if appropriate safety precautions are not taken. Marketing of agricultural products involves contract law. Human resource issues associated with agriculture also have legal implications, ranging from employer/employee rules and regulations, to inheritance laws.

The legal issues most commonly associated with agriculture fall into four broad categories: 1) appropriate legal business structure, and tax and estate planning; 2) contractual arrangements; 3) tort liability; and, 4) statutory compliance, including environmental issues.

Business Structure and Estate Planning

The method used to obtain and hold title to property is very important and has long-term effects. For instance, the options for disposing of property at the time of retirement from farming is largely determined by the way it is titled and legally held.

Estate planning is the process of developing a program for effective management, enjoyment, and disposition of property at the least possible tax cost. Making a will is a crucial part, but estate planning includes much more. When you plan your estate, you are creating a blueprint of how you want your financial and personal affairs handled after you can no longer handle them.

Many farmers avoid estate planning because they don't really know where to start and it appears as an enormous task; a task that involves dealing with many issues that are frequently unpleasant.

It is your plan. You set the goals and determine what you want accomplished. The only right answers are your answers. Start by learning the terminology and basic concepts and tools. Use professional advice and assistance.

Contractual Arrangements

A contract is usually defined as a written or oral agreement between two or more parties involving an enforceable commitment to do or refrain from doing something. In agriculture, contracts between farmers and agribusinesses specify certain conditions associated with producing and/or marketing an agricultural product. By combining various market functions, contracting generally reduces participants' exposure to risk. In addition to specifying certain quality requirements, contracts can also specify price, quantities to be produced, and services to be provided.

Tort Liability

"Tort" is a Latin term that literally means "twisted action."

Tort liability arises from the negligent or intentional infliction of damage to a person or property. Tort liability can involve the failure to do something that a reasonable person would have done, or doing something that a reasonable person would not have done. This type of liability is currently insured under a general liability insurance policy.

The simplest type of tort arises where someone is injured on a farm or ranch property. In recent years, tort liability has broadened significantly to include what may be classed as employment torts, such as wrongful discharge. Another area of expansion has been in the so-called "toxic tort" area in which adjacent landowners, public groups, or others assert liability for damage to air and water quality on account of agricultural activity.

Statutory Compliance and Environmental Issues

A statutory obligation refers to all of the regulations and laws governing what you do as a farmer and a citizen. You are obligated to follow these laws/regulations and are subject to penalty if you do not. It is important that you become familiar with the statutory obligations regarding your farming operation so that you do not needlessly put your farm (livelihood) at risk.

A huge variety of statutory mandates apply to farmers and ranchers. These include tax reporting and payment obligations, wage, hour and safety requirements, compliance with nondiscrimination statutes, termination of employees, use of pesticides and herbicides, participation in certain farm programs, and many more.

Although many in agriculture are not fully aware of their legal obligations, failure to comply may have serious consequences in terms of fines, penalties, and abatement. For these reasons farmers and ranchers are advised to seek competent accounting and legal representation to avoid violation of statutory obligations with their accompanying penalties for noncompliance.

References

There are numerous sources of outstanding materials on all aspects of human resource and legal risk management. Contact your local Cooperative Extension office for assistance and direction.

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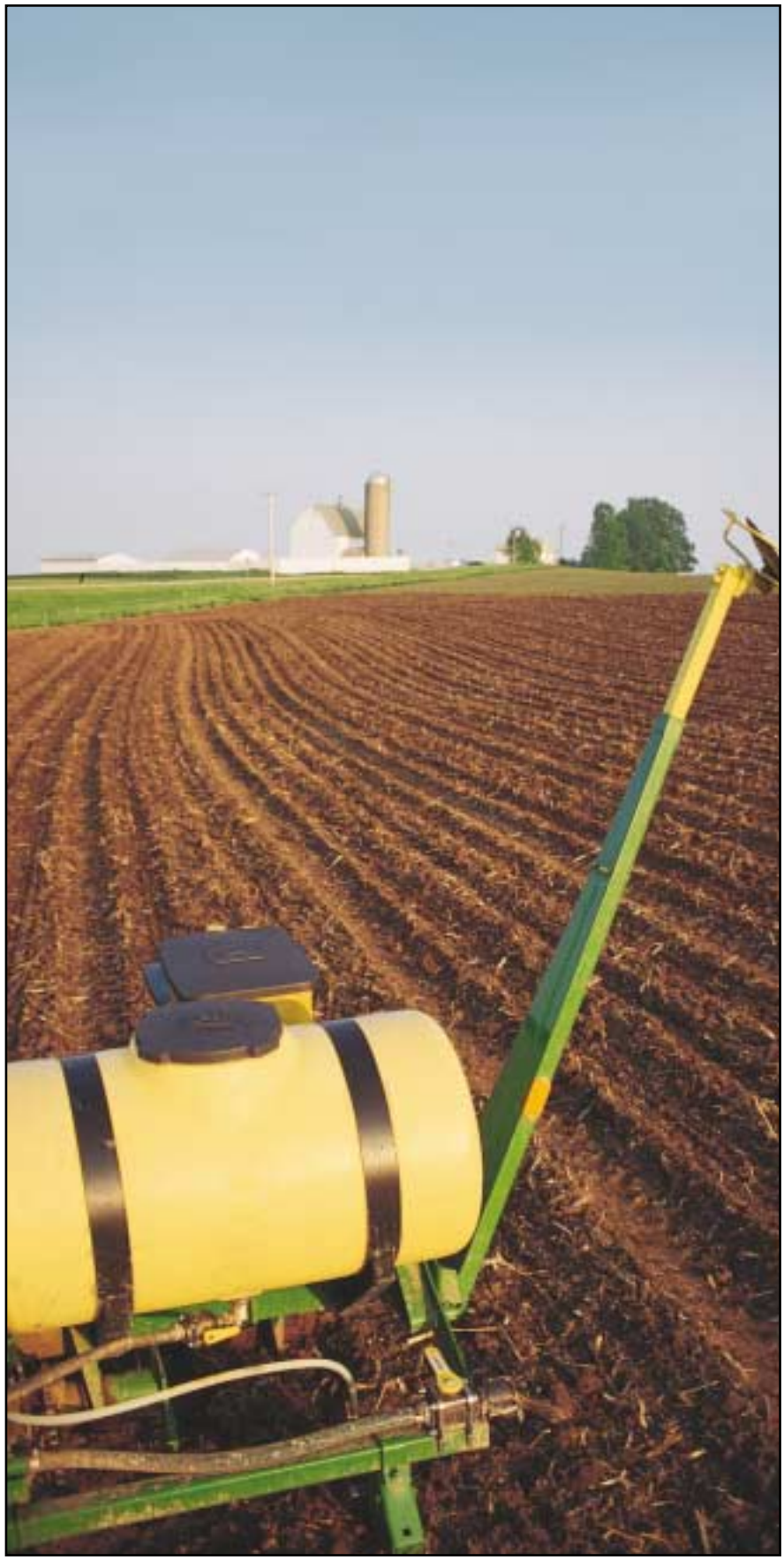


CROP INSURANCE OVERVIEW

By Dr. Laurence M. Crane, NCIS

This is the sixth article in a series of six that provide an overview of agricultural risk management.

Crop insurance is an easy and effective tool to transfer risk to someone else. It is a way of protecting against unexpected loss due to a multitude of unavoidable natural events. Congress considers crop insurance to be a major risk management tool and has provided money to significantly subsidize the premiums farmers pay. There is a wide array of insurance products producers can choose from to meet their risk management needs.

Crop insurance is delivered by agents in the private sector. To obtain coverage, all one needs to do is contact an agent who will help the producer understand which products are available in the county, and the important features of each product. The agent will also provide the information and help necessary to complete an application for insurance.

By definition insurance is the means of protecting against unexpected loss. Everyone has insurance; either you buy insurance from an insurance company, or you insure yourself. When you self-insure there are no premiums to pay, but in the event of a loss you pay the full amount. In other words, when self-insured you have a free policy with a 100 percent deductible.

There is a multitude of crop insurance products on the market and obtaining crop insurance is relatively easy. It involves determining the amount of protection desired and selecting the product and coverage level that will best provide that protection. Qualified and informed agents are available to answer questions and provide help and assistance in completing an application and explaining program requirements.

DETERMINING INSURANCE PROTECTION

True risk protection must be based on a farm's own production potential. Proving historical yield records is the most realistic method of estimating how much protection is needed, especially if a grower's yield is above average. The insurance yield for much of Federal crop insurance coverage is based on a producer's Actual Production History (APH). APH's are based on the average yield from the insured unit for four to ten consecutive years. For farmers who have less than four years of production records, variable transitional yields (T-Yields) are used to complete the minimum four-year database.

To determine the amount of insurance protection, farmers must select a coverage level and a price election. Producers can insure a percentage of a yield (coverage level) and, for most products, can choose from 50-75% (85% for some crops) in 5% increments, of their APH yield. The price election is the price per unit of measure as issued by the US Department of Agriculture Risk Management Agency (USDA/RMA) prior to each crop year.

This price election is used to establish the insurance guarantee, premium, and to compensate the insured in the event a production loss occurs. Producers have a choice of various percentage level price elections established for each crop year (55% to 100% of USDA/RMA established or projected market price).

There are several options on how to divide land to determine APH yields and premiums under crop insurance. Each parcel of land for which claims are calculated is called an "insurance unit." A unit is defined as that acreage of the insured crop in the county which is taken into consideration when determining the guarantee, premium, and the amount of any indemnity (loss payment) for that acreage. Unit structure is a very important aspect of maximizing the risk management protection offered by various insurance policies. Check with an insurance agent to find out how many and what types of insurance units your crops qualify for, and how this will affect your premiums. There are four types of unit structure: basic, optional, enterprise, and whole-farm units.

INSURANCE PRODUCTS

Multiple Peril Crop Insurance (MPCI)

MPCI is a broad-based crop insurance program administered by RMA and subsidized by the Federal Crop Insurance Corporation (FCIC). As the name implies, MPCI provides protection against an unavoidable loss in yield due to nearly all natural disasters. For most crops, that includes drought, excess moisture, cold and frost, wind, flood and damage from insects and disease. MPCI does not cover losses resulting from not following good farming practices, low commodity prices, theft, and specified perils that are excluded in some policies. There are specific restrictions on some crops based on acceptable farming practices. Most MPCI programs guarantee a yield based on an individual producer's APH. If the production to count is less than the yield guarantee, the insured will be paid a loss.

Catastrophic (CAT)

CAT insurance is the minimum level of multi-peril crop insurance coverage at 50% of a producer's yield and 55% of the price, and meets requirements for a person to qualify for certain other USDA program benefits. The premium is 100% subsidized, but the farmer pays a $100 per crop per county administrative fee. Farmers with limited resources may be eligible for a waiver of the fee for CAT coverage. Any crop insurance agent can assist producers in determining if they are eligible for a fee waiver.

Crop Revenue Coverage (CRC)

The most widely available revenue protection policy is CRC. This policy guarantees an amount of revenue (based on the individual producer's actual production history (APH) x commodity price) called the final guarantee. The coverage and exclusions of CRC are similar to those for the standard MPCI policy. This final guarantee is based on the greater of the spring-time generated price (base price) or the harvest-time generated price (harvest price). While the guarantee may increase, the premium will not. Premium will be calculated using the base price. Since the protection of producer revenue is the primary objective of CRC, it contains provisions addressing both yield and price risks. CRC covers revenue losses due to a low price, low yield, or any combination of the two. A loss is due when the calculated revenue (production to count x harvest price) is less than the final guarantee for the crop acreage.

Income Protection (IP)

IP is a revenue product that, based on the individual producer's APH, protects against a loss of income when prices and/or yields fall. While IP looks a lot like CRC, it does not have the increasing price function of CRC. The guarantee and the premium will be calculated using the spring-time generated price (projected price). An indemnity is due when the revenue to count (production to count x harvest price) is less than the amount of protection.

Revenue Assurance (RA)

The coverage and exclusions of RA are similar to those for the standard MPCI policy. However, MPCI provides coverage for loss of production, whereas RA provides coverage to protect against loss of revenue caused by low prices or low yields or a combination of both. RA has the Fall Harvest Price Option (FHPO) available. This Option uses the greater of the fall harvest price (harvest-time generated price) or the projected harvest price (spring-time generated price) to determine the per-acre revenue guarantee. So, with the Option, RA works like CRC, without the Option, it works like IP. RA protects a producer's crop revenue when the crop revenue falls below the guaranteed revenue.

Group Risk Income Protection (GRIP)

GRIP is based on the experience of the county rather than individual farms, so APH is not required for this program. A GRIP policy includes coverage against potential loss of revenue resulting from a significant reduction in the county yield or commodity price of a specific crop. When the county yield

estimates are released, the county revenues (or payment revenues) will be calculated prior to April 16 of the following crop year. GRIP will pay a loss when the county revenue is less than the trigger revenue. Since this plan is based on county revenue and not individual revenue, the insured may have a loss in revenue on their farm and not receive payment under GRIP. Beginning with the 2004 crop year, the GRIP Harvest Revenue Option (HRO) Endorsement is available. This optional endorsement offers "upside" price protection by valuing lost bushels at the harvest price in addition to the coverage offered under GRIP.

Group Risk Plan (GRP)

Like GRIP, GRP coverage is based on the experience of the county rather than individual farms, so APH is not required for this program. GRP indemnifies the insured in the event the county average per-acre yield or payment yield falls below the insured's trigger yield. RMA will issue the payment yield in the calendar year following the crop year insured. Since this plan is based on county yields and not individual yields, the insured may have a low yield on their farm and not receive payment under GRP.

Adjusted Gross Revenue (AGR)

AGR is a non-traditional, whole farm risk management tool that uses a producer's historic IRS Schedule F tax form or equivalent information as a base to provide a level of guaranteed revenue for the insurance period. It provides the producer with protection against low farm revenue due to natural disaster or market fluctuation. Covered farm revenue is income from agricultural commodities reported on the Schedule F tax form, including incidental amounts of income from animals and animal products (not to exceed

35% of farm revenue) and aquaculture reared in a controlled environment. Incidental livestock income represents the crop production value fed to livestock. AGR-Lite is a streamlined version of AGR available in limited states offering protection to smaller farms.

Private Named Peril (Crop-Hail)

Private stand-alone insurance policies provide protection against specifically named perils and are paid based on a percentage of damage multiplied by the liability or protection purchased less the deductible. Examples of private, non-subsidized crop insurance programs may include crop-hail, wind, or fire insurance, which offer protection for one specific peril (e.g., hail), and various programs which supplement federally subsidized insurance. The part of a crop damaged by a named peril may be less than the deductible on an MPCI policy. In this instance, crop-hail insurance can fill the coverage gap. An MPCI policy protects against losses severe enough to significantly drop the whole farm's yield average. Crop-hail insurance, on the other hand, gives supplemental, acre by acre protection that more accurately reflects the actual cash value of damage from hail.

These products are not federal or state government products and the premiums are not subsidized. However, private products are regulated by the insurance departments in each state and companies must comply with all state insurance laws.

IMPORTANT DEADLINES

Sales Closing: To participate, a person must apply for insurance on or before the applicable sales closing date. This is the last date to apply for crop insurance coverage for any FCIC

policy, or make changes in coverage from the previous year. Growers need to decide by this date the type of policy and the level of protection they want. Sales closing dates vary by crop and by state.

Final Planting Date: Last day to plant unless insured for late planting.

Acreage Reporting Date: After the crop is planted, producers must report (by type and or varietal group, if applicable) the number of acres insurable and uninsurable for which the insured grower has a share.

Premium Billing Date: Although premiums are payable on the day after the sales closing date, the policy holder will not be billed until the premium billing date. Generally this date falls near harvest.

End of Insurance Period: Following this date, the farmer no longer has any production or revenue guarantee on the crop. This date is the earliest date the crop is harvested, abandoned, or totally destroyed, the day the final adjustment on losses is made, or a specific calendar date set in each crop policy.

Date to File Notice of Damage: This is the last date to give notice of probable loss in order to receive an indemnity payment. Notice is required within 72 hours of the discovery of the damage, but not later than 15 days after the end of the insurance period.

Policy Termination Date: If premiums or administrative fees are not paid by this date, the insurance coverage for the following year will be terminated.

Cancellation Date: Last date to give written notice to the insurance company if the grower does not wish to carry crop insurance the next year. Otherwise, in most cases the policy will renew automatically for another year.

Production Reporting Date: To keep your APH up to date, you must certify each year the acreage planted and the total production from the previous year.

PROCESS OF GETTING INSURANCE

Insurance Cycle

A specified date early enough that neither party to the insurance contract has knowledge of the crop's production prospects for the year. The application for insurance includes the crop for which the insurance is sought, the county in which it is to be grown, the coverage level and price election at which the crop is to be insured. Historical records will be needed to verify production potential and to establish an APH (actual production history).

The next step is to plant the crop prior to the final planting date. After the crop is planted, insured producers must file an acreage report with their insurance provider to certify the number of acres planted, the farming practice (for example, irrigated, non-irrigated, etc.) where appropriate, and any other information required to insure that crop in that area.

After RMA accepts the acreage reports, it calculates the amount of subsidy and credits the appropriate amounts to insured farmers and their insurance providers. Premiums and any fees that insured farmers are required to pay are generally billed after the acreage report has been filed and processed. The amount of the premium that is owed depends on several factors, including the number of acres planted, APH yield, level of protection selected and the farming practice.

It is the insured's responsibility to follow good farming practices and care for the crop through the growing season and harvest. If a loss occurs they are responsible to inform their agent and continue to care for the crop and obtain consent before any insured acreage is destroyed. An adjuster will verify the loss and an indemnity will be calculated and paid according to the terms of the policy. If no loss occurs, the farmer harvests the crop and reports the actual production to the agent for updating and recalculation of the APH.

Insurance policies are continuous and if an insured wishes to discontinue insurance for the next year, they must do so by a specified date know as the cancellation date. The cancellation date is usually the same as the sales closing date, though minor differences occur on some crops.

Finding an Agent

Crop insurance is sold only by agents in the private sector. Use the Risk Management Agency's website (**www.rma.usda.gov**) to locate an agent in your area, or ask other growers or professionals (such as lenders) you do business with for their recommendations.

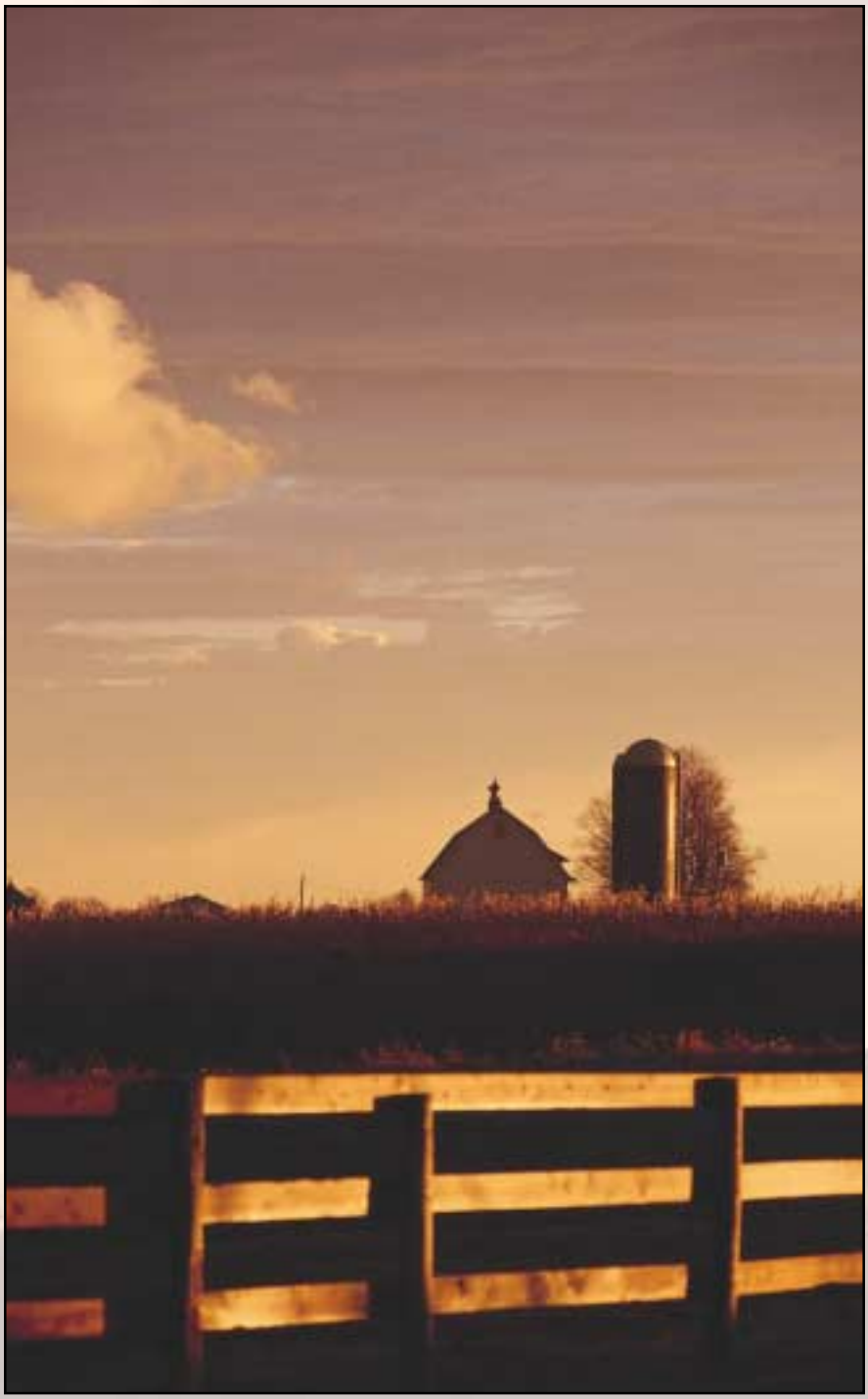
Check with the insurance agency where you purchase other types of insurance. Often you can obtain crop insurance through an agent you already use for your homeowner's, automobile, fire, health, or life insurance needs. Many insurance agencies have agents who specialize in crop insurance.

ADDITIONAL INFORMATION

The RMA website (**www.rma.usda.gov**) has numerous factsheets and other information on the Federal Crop Insurance Program. The site also contains an agent locator that will identify the agents located in your area, and a list of the insurance providers and their contact information (phone, fax, address, website). The website of each provider also contains information about the various insurance products and how they work.

The Risk Management Education website maintained by the University of Minnesota is an excellent source of information on risk management and crop insurance. This information can be accessed at **www.agrisk.umn.edu.** TODAY

Selecting the Right Crop Insurance Agent



By Dr. Laurence M. Crane, NCIS

An important step in using crop insurance is selecting an agent. Selecting the "right" agent is sort of a combination of *"beauty is in the eye of the beholder," "there ain't no such thing as a free lunch"*, and *"you get what you pay for,"* proposition. Or, as a general rule of life: there is usually always more than one right way to do most things; there is a cost associated with everything, period!; and, what you get back from any activity is largely a result of what you put into it. Applying this to selecting an agent to work with means that you decide what you want, it takes some initiative and effort on your part to make it happen, and you will be rewarded for your efforts with a well trained, accommodating agent.

All agents who sell crop insurance are licensed only after meeting state insurance requirements. Once licensed by the state, they also must receive federally mandated annual training and successfully pass a competency exam. To locate a licensed crop insurance agent in your area, contact one of the companies that write insurance in your state and they will direct you to the nearest agent. Page 41 shows by state, the companies offering federal crop insurance.

Given that the price is the same for a given MPCI product, how does a farmer select one insurance agent over another? Or, given that dollars are homogenous, why do you use (or prefer) one financial institution over another? I believe the one word answer is the same for both questions: SERVICE! True, service may mean different things to different farmers;

however, quality of service is a significant factor in customer satisfaction, and holds an important key in determining what crop insurance agent to select. This begs the question, "What skills should a crop insurance agent possess to be able to provide top quality service?" To answer this question, I informally polled some NCIS member companies, crop insurance agents, and farmers to learn what skills they look for in an outstanding agent. This article is a summary of the skills these companies and individuals deemed essential to providing quality service.

Professional Attitude, High Moral Character and Person of Integrity

First and foremost is personal and professional ethics. Companies and farmers alike want to do business with individuals who act ethically and exhibit professional behavior. Agents and loss adjusters who have demonstrated an ability to do the right thing both personally and professionally are a credit to themselves, the companies they represent, and the crop insurance industry. These individuals will always be in demand professionally because everyone knows they can be trusted. Companies seek their services because the company knows they will be well represented, and potential legal liabilities minimized. Farmers seek out honest agents with professional behavior because they desire reassurance that their private production records and other personal information will be kept confidential. Moreover, farmers are interested in doing business only with agents who understand how crop insurance works, and who make a genuine effort to correctly and completely represent the various available products.

The essence of ethical business behavior is personal integrity and moral character. The guide to personal integrity is that moral compass we call our conscience. There is no place in the crop insurance industry for individuals who have no conscience or integrity, and have no intention of adhering to the high ethical standards embraced by the rest of the industry

Expectations of high ethical conduct are not unique to any one crop insurance company. Every company emphasizes and encourages high standards of professional conduct by the agents associated with their company.

Ability to Work Well with Other People

Strong interpersonal skills are required to excel as a crop insurance agent. Being an agent is primarily a sales job, and salesmanship depends upon understanding and working well with other people. Sales skills can be taught, and most people have the ability to learn the mechanics of selling; however, to effectively relate to a wide range of potential insureds, with the appropriate blend of conversation and information, is more art than science. Moreover the ability to relate to farmers and provide them the information they need to make a purchase decision, at the time and in the manner they want to receive it, is critical to success. The marketplace rewards agents who have this innate ability, because it is the magic secret of sales success.

Agents not only need to be able to work well with farmers, but also must have the skill to communicate with others in the companies they represent. Every underwriter and sales manager knows who the preferred agents are because they are the ones who are able to get along well with others. Personality is hard to teach, but anyone can be pleasant and everyone can learn good social skills and practice patience and consideration for others. These characteristics often are the deciding factor in succeeding with other people.

Locally Known and Respected

A sales relationship is also a trust relationship. Seek out agents who are locally known, have earned a trustworthy and honorable reputation, and are familiar with the local area.

Not every successful agent has an established "Main Street" presence. However, there are select agents who have built a solid reputation by being involved with local civic groups and/or broad-based church activities. Quality agents are also seen as ones who genuinely help to build the community and are involved in supporting and strengthening the quality of life and economic stability of the area.

An important aspect of delivering federal crop insurance is ensuring that all who are interested in availing themselves of the various insurance products have a legitimate opportunity to do so. This is

especially important with the current single delivery system, where crop insurance is available only from private insurance agents. Limited resource and socially disadvantaged farmers often feel misunderstood and express a lack of trust of all outside professionals, including those in crop insurance. Crop insurance companies recognize this important issue and are very proactive in reaching out to those with limited resources.

Understanding of Agriculture

As the number of people raised on farms decline, so does the pool of individuals who have first-hand experience in production agriculture. Being raised on a farm is not a prerequisite to being a top insurance agent; however, a thorough understanding of agricultural economics and the farming lifestyle is extremely beneficial.

Successful agents understand production agriculture, how farmers formulate decisions, and the specific areas that they can add value to the process. They possess an understanding of the big picture, including their role and the role of others who impact the farmer's decisions. They recognize that the agribusiness environment is complex and interactive, and decisions and their outcomes are interrelated and connected. Farm customers are increasingly looking to a team of advisors (lenders, insurance agents, accountants, brokers, lawyers, specialists and consultants, etc.) to provide coordinated and comprehensive solutions to management decisions. There is a significant role to play for insurance agents who view themselves as members of an agribusiness team, and act accordingly.

Successful agents also understand microeconomics and the firm level decisions a farmer must make. Without this detailed knowledge, an agent is unable to provide the type and level of information needed by the farmer to answer critical production questions, and make important management decisions. This need to understand the decision process will increase over time as the structure of production agriculture changes and evolves.

Computer Literacy

Computer skills are a must for crop insurance agents to compete in today's marketplace. We live in the information age and computers are the tools of choice to access, process, and transmit information. Because information is power, one becomes more or less powerful, depending upon their ability to use and apply information. Without complete computer literacy, it is impossible to compete in a world dominated by computers.

Successful agents understand production agriculture, how farmers formulate decisions, and the specific areas that they can add value to the process.

E-commerce is revolutionizing inventory management and retail selling. The impact is being felt in the crop insurance industry. Agents can receive their actuarial documents and handbooks electronically. The move to a continuous rating structure (made possible by advances in computer technology) will continue to impact the work of every crop insurance agent. Recent changes allowing electronic signatures in certain situations is likely only the tip of the electronic iceberg. The message is clear: computer literacy and familiarity with an increasing number of electronic applications is required.

Strong Communication Skills

Every vocation working with the public requires strong communication skills. The ability to effectively communicate with others is required. For obvious reasons, both oral and written skills are necessary to be considered a successful crop insurance agent. Time will always be considered a valuable commodity; thus, well-crafted, effective communication is a way of saving time. On the other hand, agents who are rushed and appear overly busy and detached are offensive to farmers who rightfully expect and deserve their agent's undivided attention and consideration. Top agents have developed the skill of conveying total attention and focus on the individual, without being overbearing, appearing solicitous, or viewed as oblivious to any time constraint. Also, poor or miscommunication leads to misunderstanding, confusion, wasted energy, and/or costly legal issues.

Excellent communication skills are closely related to the issues discussed above with regards to working well with others. People who communicate well are typically excellent problem solvers because they can address sensitive issues in delicate situations without damaging individual egos, or appearing to challenge others in an offensive manner. Individuals who have honed these communication skills are in demand everywhere, not just in crop insurance.

Strong Work Ethic and Good Business Sense

First and foremost top crop insurance agents view themselves as private businesspersons. Astute agents understand economic principles, market forces, and the necessity of working hard and the value of working smart. They know that all business decisions have economic consequences. They demonstrate an understanding of marketing by being able to effectively segment the market and target their efforts and activities.

They are able to bundle products and services in a fashion to add value, control costs, and meet customer demands of quality and timeliness. They understand the demographics of their potential customer base and how demographic characteristics effect needs and purchase decisions. They engage in strategic business planning so that they are able to understand their business strengths, weaknesses, and comparative advantages, have identified and set specific business goals, know what changes they need to make to reach their goals, and how they will make the necessary changes. This empowers them to move forward in a consistent, coordinated fashion, thus they are able to approach business decisions on economic, rather than emotional, terms.

Commitment to Education and Life-long Learning

It is imperative that agents thoroughly understand all of the products they make available to potential insureds. It requires a strong commitment to education and lifelong learning to stay current, and to be able to understand all aspects of agriculture and crop insurance well enough to provide the quality of service farmers need and deserve. Few vocations require more vigilance in personal study and effort to stay current than crop insurance.

Nothing in crop insurance is as certain as change. Changes occur primarily because this is a relatively new industry that is experiencing tremendous growth and expansion, both geographically and in volume of products offered. Current farm legislation is based on the concept of individual farmers being more responsible to manage their own risks, thus leading to an increased role and importance for crop insurance. Moreover, as historical experience grows and data becomes available, modifications and refinements to policy, procedure and rate structure are made to improve product quality. This condition of constant change creates an environment of an everlasting need for continuing education.

A commitment to education and lifelong learning goes hand in hand with strong communication skills. The basic assumption of strong communication skills is that you have an important message to communicate and are skilled at doing so. Thus education includes not only understanding crop insurance, agriculture, economics, and marketing, but also includes teaching, training, education, and sales skills.

Service-oriented Attitude

Indeed we live in a service-oriented, high-tech society. However, service means different things to different people, thus an importance of understanding demographics. There is still a strong demand for high-touch, even in a high-tech society. This is particularly true in production agriculture with its tradition of relationship-based sales. Typically, farmers identify with the personality of an agent more so than a particular company. The agent becomes the company to them. Consequently it is imperative to be seen as a risk management problem solver and not just a seller of products. To a large degree, those in the chemical industry have already made the transition from being seen as chemical peddlers, to being viewed as agronomic advisors. Long-term survival depends on being able to provide service and not just products.

Astute agents recognize their unique role and the importance of providing total risk management. Long-term survival depends on servicing the producer's crop insurance needs this year, and ensuring that their other risk management needs are sufficiently addressed so they will be in business next year as well. It is the ethical responsibility of every agent to provide the best service possible to their insureds on behalf of the companies they represent.

Self-motivated, Focused, and Committed to Excellence

In a competitive industry there is little time for hand holding, business babysitting, and prodding. Unfortunately, working hard is not enough to guarantee success. One must also take initiative, recognize opportunities, and be self-motivated to make it happen. Being able to recognize and capitalize on opportunities is usually the result of preparation and planning. There is no substitute for preparation. Realizing that economic principles prevail is largely what motivates individuals to understand important economic behaviors and prepare for opportunities.

It is not possible to be all things to all people. A commitment to excellence means being the very best in their chosen line of insurance: crop insurance. As described above, because both agriculture and insurance are dynamic changing industries, insurance agents, like farmers, need to be flexible and able to adapt to change to survive and prosper.

A pattern seems to be emerging that typifies successful agents—those positioned to be around for the long term. The characteristics that describe this agent group are similar to the characteristics of other professionals (lenders, elevator operators, brokers, etc.) who work successfully with farm clients. As a group, they are specialists who are self motivated, have an appreciation for and understand economic principles, approach their professions as part of a larger team and know the value of education and outreach. They are also involved in professional development, understand the role service plays in selecting professional assistance, are persons of high integrity with strong a work ethic, and are effective in communicating and relating with others. TODAY

Insurable Crops, Locations and Plans

The following pages contain a list of all federally subsidized insurable crops, what states they are insurable in, under what plan of insurance, and the number of counties where available (indicated by "A" for all counties within the state, or "B" followed by the number of counties). Please note this information is current as of December 31, 2004. Changes are constantly occurring in the crop insurance program and you should contact your crop insurance agent for the most up-to-date information. On the back cover is a list of all companies (with their information—toll free number and website address) that write federally subsidized crop insurance policies.

1 = **APH**–Actual Production History
2 = **APHAR-APH**–Alternatively Rated
3 = **AQDOL**–Aquaculture Dollar
4 = **ARC**–Avocado Revenue Coverage
5 = **CRC**–Crop Revenue Coverage
6 = **DO**–Dollar Amount of Insurance
7 = **FD**–Fixed Dollar
8 = **GRIP**–Group Risk Income Protection
9 = **GRP**–Group Risk Plan
10 = **G**–GYC
11 = **GS**–GYC Span
12 = **IIP**–Indexed Income Protection
13 = **IP**–Income Protection
14 = **PNT**–Peanuts
15 = **PRV**–Pecan Revenue
16 = **RA**–Revenue Assurance
17 = **TDO**–Tree Based Dollar Amount of Insurance
18 = **TGP**–Tobacco (Guaranteed Production)
19 = **TQ**–Tobacco (Quota)
20 = **YDO**–Yield Based Dollar Amount of Insurance
21 = **AGR-L**–Adjusted Gross Revenue - Lite
22 = **AGR**–Adjusted Gross Revenue
23 = **LRP**–Livestock Risk Protection
24 = **LGM**–Livestock Gross Margin
25 = **IAPH**–Indexed APH

A = All counties within a state (where there is an insurance program).
B = Number of counties where the program is available.
(P) = Pilot Program.
CEO = Coverage Enhancement Option.

	ADJUSTED GROSS REVENUE*					APRICOTS		AVOCADO			BEANS		
STATE	AGR	AGR-Lite	ALFALFA SEED	ALMONDS	APPLES	Fresh	Processing	Avocado	Trees	BARLEY	Dry	Fresh Market	Processing
Alabama													
Alaska		21A								1B-4			
Arizona					10B-2					1B-5			
Arkansas					10B-1								
California	(P)22B-8		1B-1	1B-16	10B-25	10B-13CEO	10B-13CEO	(P)4B-6		1B-33	1B-18		
Colorado					10B-3					1B-35,16B-25	1B-24		
Connecticut	(P)22A	21A			10A								
Delaware	(P)22A	21A								1A			10B-2
Florida	(P)22B-6							(P)1B-1	(P)17B-1			(P)6B-1	
Georgia					10B-7					1B-4			
Hawaii													
Idaho	(P)22B-3	21A	1B-1		10B-5	10B-4				1B-43,(P)13B-43,16B-43	10B-15		10B-2
Illinois					10B-6					1B-10			10B-4
Indiana					10B-10					1B-7			10B-3
Iowa										1B-14	1B-4		
Kansas										1B-75	1B-11		
Kentucky										1B-15			
Louisiana													
Maine	(P)22A	21A			10B-11					1A			
Maryland	(P)22B-21	21B-23			10B-7					1B-18			10B-10
Massachusetts	(P)22A	21A			10B-12								
Michigan	(P)22B-9				10B-25					1B-76	1B-33		10B-11
Minnesota					10B-2					1B-74,(P)13B-74,16B-74	1B-41		10B-15
Mississippi													
Missouri					10B-9					1B-17			
Montana			1B-1							1B-55,(P)13B-55,16B-55	1B-18		
Nebraska										1B-26	1B-26		
Nevada			1B-2							1B-12			
New Hampshire	(P)22A	21A			10A								
New Jersey	(P)22A	21B-20			10B-12					1B-7			10B-3
New Mexico					10B-4					1B-4	1B-4		10B-1
New York	(P)22B-16	21B-52			10B-22					1B-15	1B-13		10B-18
North Carolina		21A			10B-18					1B-57		(P)6B-2	
North Dakota										1B-53,(P)13B-53,16B-53	1B-41		
Ohio					10B-15					1B-5	1B-4		
Oklahoma										1B-24			
Oregon	(P)22B-11	21A	1B-1		10B-15	10B-5				1B-30,(P)13B-30	10B-2		10B-9
Pennsylvania	(P)22B-14	21B-66			10B-43CEO					1B-54			10B-15
Rhode Island	(P)22A	21A			10B-4								
South Carolina					10B-5					1B-6			
South Dakota										1B-66,(P)13B-28,16B-66	1B-21		
Tennessee					10B-2					1B-8			10B-4
Texas										1B-43	1B-18		10B-3
Utah					10B-2					1B-25	10B-1		
Vermont	(P)22A	21A			10B-7					1B-1			
Virginia	(P)22B-40				10B-27					1B-61		(P)6B-2	10B-2
Washington	(P)22B-11	21A	1B-2		10B-13CEO	10B-7				1B-38,(P)13B-38	10B-8		10B-7
West Virginia		21B-55			10B-14					1B-1			
Wisconsin					10B-14					1B-64	1B-3		10B-42
Wyoming			1B-2							1B-18	1B-7		

* AGR is a plan of insurance and not a crop. Under AGR many crops (including livestock) are insurable that are not insurable under any other plan of insurance.

									CITRUS									
					CATTLE					CITRUS TREE			GRAPEFRUIT				LEMON	
STATE	BLUE-BERRIES	CABBAGE	CANOLA	CARAMBOLA TREES	Fed	Feeder	CHERRIES	CHILE PEPPERS	Citrus I-VII	All Other Citrus Trees	Trees I-V	FRESH NECTARINES	All Other Grapefruit	Grapefruit	Rio Red, Star Ruby & Ruby Red	Trees	Trees	Lemons
Alabama	(P)10B-1		1B-1															
Alaska		(P)10B-1																
Arizona								(P)7B-1						10B-3				10B-3
Arkansas																		
California							(P)7B-2					10B-7CEO		10B-5				10B-12
Colorado					23B-1	23B-1												
Connecticut																		
Delaware																		
Florida	(P)10B-2	(P)10B-3		17B-1					6B-29CEO	17B-28						17B-28	17B-4	
Georgia	(P)10B-3	(P)10B-2	1B-3															
Hawaii																		
Idaho			1B-26,16B-26									10B-4						
Illinois		(P)10B-3			23B-1	23B-1												
Indiana					23B-1	23B-1												
Iowa					23B-1	23B-1												
Kansas					23B-1	23B-1												
Kentucky																		
Louisiana																		
Maine	(P)10B-7																	
Maryland																		
Massachusetts																		
Michigan	(P)10B-5	(P)10B-2			23B-1	23B-1	(P)7B-2											
Minnesota			1B-29,16B-29		23B-1	23B-1												
Mississippi	(P)10B-8																	
Missouri					23B-1	23B-1												
Montana			1B-18				(P)7B-1											
Nebraska					23B-1	23B-1												
Nevada					23B-1	23B-1												
New Hampshire																		
New Jersey	(P)10B-2																	
New Mexico								(P)7B-2										
New York		(P)10B-3																
North Carolina	(P)10B-6	(P)10B-1																
North Dakota			1B-53CEO,16B-53		23B-1	23B-1												
Ohio		(P)10B-2			23B-1	23B-1												
Oklahoma					23B-1	23B-1												
Oregon	(P)10B-6	(P)10B-3	1B-7				(P)7B-6					10B-5						
Pennsylvania		(P)10B-1																
Rhode Island																		
South Carolina	(P)10B-1	(P)10B-1																
South Dakota					23B-1	23B-1												
Tennessee																		
Texas		(P)10B-1			23B-1	23B-1					6B-3CEO		10B-3CEO		10B-3CEO			
Utah					23B-1	23B-1	(P)7B-1											
Vermont																		
Virginia		(P)10B-1																
Washington	(P)10B-6	(P)10B-2	1B-11				(P)7B-9					10B-7						
West Virginia					23B-1	23B-1												
Wisconsin		(P)10B-1			23B-1	23B-1												
Wyoming					23B-1	23B-1												

	CITRUS (*continued from previous page*)										CORN			
				ORANGES				TANGELOS						
STATE	LIME TREES	MANDARINS	MANGO TREES	Early, Midseason & Late	Navel	Sweet & Valencia	Trees	Minneola	Orlando	CLAMS	Corn	Fresh Market	Hybrid Seed	Sweet
Alabama											1B-63,5B-63	6B-1		
Alaska														
Arizona		10B-3			10B-3	10B-3		10B-3	10B-3		1B-4,5B-4			
Arkansas											1B-49,5B-49,16B-49			
California		10B-5			10B-4,10B-9	10B-10		10B-5	10B-2		1B-19,5B-19			
Colorado											1B-26,5B-26,16B-26	6B-6		
Connecticut											1A,5A	6A		
Delaware											1A,5A,8B-2,9B-2			1A
Florida	17B-3		(P)17B-1				17B-28			(P)3B-4	1B-27,5B-27	6B-11		
Georgia											1B-140,5B-140	6B-3		
Hawaii														
Idaho											1B-17,5B-17			1B-9
Illinois											1B-102,5B-102,8B-94,9B-94,(P)13B-102,16B-102		20B-91	1B-11
Indiana											1B-92,5B-92,8B-84,9B-84,(P)13B-92,16B-92		20B-76	
Iowa											1B-100,5B-100,8B-100,9B-100,(P)13B-6,16B-100		20B-67	1B-20
Kansas											1B-105,5B-105,8B-17,9B-17,16B-105			
Kentucky											1B-107,5B-107,8B-24,9B-24,16B-107		20B-1	
Louisiana											1B-38,5B-38,16B-38			
Maine											1A,5A	6A		
Maryland											1B-23,5B-23,8B-5,9B-5,12B-23	6B-9		1B-5
Massachusetts										(P)3B-5	1B-12,5B-12	6B-11		
Michigan											1B-80,5B-80,8B-36,9B-36,16B-80		20B-8	
Minnesota											1B-86,5B-86,8B-60,9B-60,16B-86		20B-22	1B-38
Mississippi											1B-80,5B-80			
Missouri											1B-100,5B-100,8B-41,9B-41,16B-100		20B-5	
Montana											1B-24,5B-24			
Nebraska											1B-91,5B-91,8B-74,9B-74,16B-91		20B-35	
Nevada														
New Hampshire											1A,5A	6A		
New Jersey											1B-16,5B-16	6B-16		
New Mexico											1B-20,5B-20			
New York											1B-52,5B-52,12B-52	6B-54	20B-4	1B-11
North Carolina											1A,5A,8B-23,9B-23,12A,16A			
North Dakota											1B-53,5B-53,16B-53			
Ohio											1B-88,5B-88,8B-61,9B-61,16B-88		20B-49	
Oklahoma											1B-59,5B-59,16B-59			
Oregon											1B-18,5B-3			1B-12
Pennsylvania											1B-66,5B-66,8B-13,9B-13,12B-66	6B-66		1B-12
Rhode Island											1A,5A	6A		
South Carolina										(P)3B-2	1A,5A			
South Dakota											1B-66,5B-66,8B-26,9B-26,16B-66		20B-9	
Tennessee											1B-89,5B-89,16B-89			
Texas				10B-3CEO							1B-141,5B-141,8B-39,9B-39		20B-4	
Utah											1B-18,5B-18			
Vermont											1A,5A	6A		
Virginia										(P)3B-2	1B-97,5B-97,8B-3,9B-3,16B-97	6B-2		
Washington											1B-26,5B-19			1B-13
West Virginia											1B-55,5B-55			
Wisconsin											1B-72,5B-72,8B-53,9B-53		20B-14	1B-39
Wyoming											1B-11,5B-11			

	COTTON						FORAGE		GRAPES								
STATE	Cotton	Extra Long Staple	CRANBERRIES	CUCUMBERS (Processing)	FIGS	FLAX	Forage Production	Forage Seeding	Grapes	Table Grapes	MACADAMIA NUTS/TREES	MILLET	MINT	MUSTARD	NURSERY	OATS	ONIONS
Alabama	1B-62,5B-62,9B-5,(P)13B-4														6A	1B-20	
Alaska							10B-5								6B-5	1B-1	
Arizona	1B-9,5B-9,16B-9	1B-7					10B-6			10B-3					6A		
Arkansas	1B-31,5B-31,9B-5,16B-31								10B-2						6A	1B-23	
California	1B-12,5B-12	1B-5			10B-4		10B-23	(P)6B-6	10B-31	10B-9					6A	1B-19	(P)10B-2
Colorado							10B-2		10B-1			1B-15			6B-64	1B-15	(P)10B-12
Connecticut															6A		
Delaware															6A		
Florida	1B-24,5B-24														6A	1B-12	
Georgia	1B-100,5B-100,(P)13B-4														6A	1B-81	(P)10B-24
Hawaii											6B-3,10B-3				6A		
Idaho						1B-1			10B-1					(P)1B-13	6A	1B-41	(P)10B-4
Illinois							1B-2,9B-2								6B-102	1B-43	
Indiana													(P)1B-2		6B-92	1B-29	
Iowa							1B-39	(P)6B-39							6B-100	1B-100	
Kansas	1B-26,5B-26											1B-3			6B-105	1B-92	
Kentucky															6A		
Louisiana	1B-25,5B-25,9B-9,16B-25														6A	1B-21	
Maine							10B-2	(P)6B-2							6A	1A	
Maryland							9B-3,10B-10	(P)6B-10							6A	1B-6	
Massachusetts			1B-6CEO												6A		
Michigan				(P)7B-2			1B-22	(P)6B-8	11B-4						6B-83	1B-80	(P)10B-19
Minnesota						1B-27	1B-86,9B-38	(P)6B-86							6B-89	1B-86	
Mississippi	1B-66,5B-66,9B-11								10B-2						6A	1B-21	
Missouri	1B-7,5B-7,9B-3								11B-1						6B-115	1B-27	
Montana						1B-3	10A	(P)6A					(P)1B-1	(P)1B-6	6A	1B-52	
Nebraska							9B-9,10B-9	(P)6B-8				1B-13			6B-93	1B-82	
Nevada							10B-17	(P)6B-4							6B-17	1B-2	(P)10B-3
New Hampshire							10B-1	(P)6B-1							6A		
New Jersey			1B-2												6A	1B-4	
New Mexico	1B-11,5B-11,16B-11	1B-3													6A		(P)10B-3
New York							10B-8	(P)6B-8	10B-11						6A	1B-46	(P)10B-12
North Carolina	1B-58,5B-58			(P)7B-5					10B-1						6A	1B-82	
North Dakota						1B-53	10B-53	(P)6B-53				1B-2		(P)1B-19	6B-53	1B-53	
Ohio									10B-3						6B-88	1B-63	
Oklahoma	1B-38,5B-38,16B-38														6B-77	1B-51	
Oregon			1B-2				10B-2		10B-15					(P)1B-1	6A	1B-25	(P)10B-6
Pennsylvania							9B-29,10B-7	(P)6B-13	10B-1CEO						6A	1B-66	
Rhode Island			1B-3												6A		
South Carolina	1B-42,5B-42			(P)7B-1											6A	1B-37	
South Dakota						1B-24	10B-66	(P)6B-66				1B-26			6B-66	1B-66	
Tennessee	1B-25,5B-25,9B-11														6A	1B-6	
Texas	1B-173,5B-173,9B-61	1B-16		(P)7B-3					10B-13						6B-254	1B-114	(P)10B-14
Utah							10B-11	(P)6B-15							6B-29	1B-14	(P)10B-3
Vermont								(P)6B-1							6A		
Virginia	1B-15,5B-15														6B-102	1B-13	
Washington			1B-2						10B-6CEO				(P)1B-2	(P)1B-7	6A	1B-23	(P)10B-6
West Virginia															6B-55	1B-27	
Wisconsin			1B-15				1B-72,9B-62	(P)6B-72					(P)1B-4		6B-72	1B-72	
Wyoming							10B-23	(P)6B-23				1B-2			6B-23	1B-17	

	PEACHES						PEAS										
STATE	Fresh Freestone	Peaches	Processing Cling	Processing Freestone	PEANUTS	PEARS	Dry	Green	PECANS	PEPPERS	PLUMS	POPCORN	POTATOES	PRUNES	RAISINS	RANGELAND	RASPBERRY & BLACKBERRY
Alabama		10B-9			1B-27,9B-8				(P)15B-2			1B-1	10B-4				
Alaska													10B-3				
Arizona									(P)15B-5				10B-2				
Arkansas		10B-14			1B-2												
California	10B-7CEO		10B-10CEO	10B-7CEO		10B-9					10B-7		10B-5	10B-14	6B-7		(P)7B-2
Colorado		10B-3										1B-5	1B-8,10B-2				
Connecticut		10B-2											1B-1				
Delaware								10A					10B-2				
Florida		10B-1			1B-21					6B-13			10B-15				
Georgia		1B-26			1B-75,9B-26				(P)15B-82								
Hawaii																	
Idaho	10B-4						10B-18	10B-10					10B-26CEO				
Illinois		10B-4						10B-7				1B-61					
Indiana												1B-74	10B-7				
Iowa								10B-4				1B-40	10B-3				
Kansas												1B-9					
Kentucky		10B-2										1B-6					
Louisiana		10B-5			1B-1												
Maine								10B-1					1B-5CEO				
Maryland		10B-5						10B-7					10B-3				
Massachusetts		10B-1											1B-2				
Michigan		10B-9						10B-1				1B-5	1B-36				
Minnesota							1B-1	10B-34				1B-3	10B-28				
Mississippi		10B-12			1B-8												
Missouri		10B-2										1B-17	1B-2				
Montana							1B-18						10B-8			(P)9B-39	
Nebraska												1B-61	10B-12				
Nevada													10B-1				
New Hampshire																	
New Jersey		10B-8											10B-6				
New Mexico					1B-3				(P)15B-1				10B-5				
New York		10B-5						10B-17					1B-15				
North Carolina		10B-20			1B-23,9B-6								1B-10				
North Dakota							1B-53						1B-6,10B-21				
Ohio												1B-34	1B-6				
Oklahoma		10B-8			1B-38								10B-3				
Oregon	10B-5					10B-6	10B-3	10B-3					10B-14				(P)7B-3
Pennsylvania		10B-23						10B-10					10B-10CEO				
Rhode Island		10B-1											1B-2				
South Carolina		1B-18			1B-17												
South Dakota							1B-11					1B-5	1B-8				
Tennessee		10B-10															
Texas		10B-44			1B-85				(P)15B-3			1B-3	10B-20				
Utah	10B-1																
Vermont		10B-1															
Virginia		10B-19			1B-10,9B-3								1B-2				
Washington	10B-7					10B-11	10B-9	10B-16					10B-13				(P)7B-2
West Virginia		10B-6															
Wisconsin								10B-40					10B-17				
Wyoming													10B-2			(P)9B-10	

	RICE				SORGHUM						
STATE	Cultivated Wild Rice	Rice	RYE	SAFFLOWER	Grain Sorghum	Hybrid Seed	Silage Sorghum	SOYBEANS	STRAWBERRIES	SUGAR BEETS	SUGARCANE
Alabama					1B-37,5B-37			1B-58,5B-58,8B-5,9B-5			
Alaska											
Arizona					1B-2						
Arkansas		1B-43CEO,5B-43,16B-43			1B-51,5B-51			1B-56,5B-56,8B-22,9B-22,(P)13B-42,16B-56			
California	1B-4	1B-13,5B-13		1B-10	1B-5,5B-5				(P)7B-4	1B-19	
Colorado					1B-18,5B-18,8B-3,9B-3		(P)25B-2	1B-7,5B-7,16B-7		1B-10	
Connecticut											
Delaware					1B-2			1A,5A,8A,9A			
Florida		1B-3,5B-3			1B-5,5B-5			1B-20,5B-20	(P)7B-2		1B-4
Georgia					1B-82,5B-82			1B-124,5B-124,8B-7,9B-7			
Hawaii											
Idaho				1B-3						1B-16	
Illinois					1B-62,5B-62			1B-102,5B-102,8B-98,9B-98,(P)13B-102,16B-102			
Indiana					1B-17,5B-17			1B-92,5B-92,8B-81,9B-81,(P)13B-92,16B-92			
Iowa					1B-32,5B-32			1B-100,5B-100,8B-100,9B-100,(P)13B-6,16B-100			
Kansas					1B-105,5B-105,8B-86,9B-86		(P)25B-37	1B-105,5B-105,8B-28,9B-28,16B-105			
Kentucky					1B-24,5B-24			1B-81,5B-81,8B-26,9B-26,16B-81			
Louisiana		1B-30CEO,5B-30,16B-30			1B-34,5B-34			1B-48,5B-48,8B-18,9B-18,16B-48	(P)7B-2		1B-24
Maine											
Maryland					1B-13,5B-13			1B-22,5B-22,8B-8,9B-8,12B-22			
Massachusetts											
Michigan								1B-63,5B-63,8B-34,9B-34,16B-63		1B-18	
Minnesota	1B-6				1B-1,5B-1			1B-83,5B-83,8B-48,9B-48,16B-83		1B-33	
Mississippi		1B-17CEO,5B-17			1B-49,5B-49			1B-81,5B-81,8B-28,9B-28			
Missouri		1B-7,5B-7			1B-92,5B-92,8B-1,9B-1			1B-92,5B-92,8B-74,9B-74,16B-92			
Montana				1B-23						1B-12	
Nebraska			1B-3		1B-75,5B-75,8B-20,9B-20			1B-79,5B-79,8B-35,9B-35,16B-79		1B-14	
Nevada											
New Hampshire											
New Jersey					1B-2			1B-14,5B-14			
New Mexico					1B-10,5B-10,8B-2,9B-2	20B-2				1B-1	
New York					1B-17			1B-23,5B-23			
North Carolina					1B-81,5B-81			1B-89,5B-89,8B-33,9B-33,12B-89,16B-89	(P)7B-13		
North Dakota			1B-21	1B-21	1B-1,5B-1			1B-35,5B-35,8B-2,9B-2,16B-35		1B-9	
Ohio					1B-7,5B-7			1B-85,5B-85,8B-52,9B-52,16B-85		1B-10	
Oklahoma		1B-1,5B-1	1B-6		1B-71,5B-71,8B-2,9B-2			1B-63,5B-63,16B-63			
Oregon										1B-6	
Pennsylvania					1B-57			1B-49,5B-49			
Rhode Island											
South Carolina			1B-3		1B-22,5B-22			1A,5A,8B-19,9B-19			
South Dakota			1B-13	1B-10	1B-59,5B-59,8B-2,9B-2			1B-48,5B-48,8B-21,9B-21,16B-48			
Tennessee		1B-1,4B-1			1B-35,5B-35			1B-76,5B-76,8B-19,9B-19,16B-76			
Texas		1B-23,5B-23	1B-2		1B-202,5B-202,8B-34,9B-34,(P)13B-201	20B-19		1B-81,5B-81		1B-19	1B-3
Utah				1B-5							
Vermont											
Virginia					1B-79,5B-79			1B-86,5B-86,8B-6,9B-6,16B-86			
Washington										1B-5	
West Virginia								1B-10,5B-10			
Wisconsin					1B-2,5B-2			1B-62,5B-62,8B-4,9B-4			
Wyoming										1B-7	

				TOBACCO							TOMATOES				
STATE	SUNFLOWERS	SWEETPOTATOES	SWINE	Burley	Cigar Binder	Cigar Filler	Cigar Wrapper	Dark Air & Fire Cured	Flue Cured	Maryland	Fresh Market	Tomatoes	WALNUTS	WHEAT	WINTER SQUASH
Alabama									18B-2		1B-2			1B-58,5B-58	(P)6B-2
Alaska														1B-2	
Arizona														1B-11,5B-11	
Arkansas											1B-5			1B-53,5B-53,9B-24,16B-53	
California											1B-6	1B-18	10B-26CEO	1B-35,5B-35,9B-13	
Colorado	1B-17,16B-17		23B-1											1B-40,5B-40,9B-18,16B-40	
Connecticut					1B-2		1B-2								(P)6B-1
Delaware												1B-2		1A,5A,9B-2	
Florida									18B-16		1B-4,6B-16			1B-22	
Georgia									18B-48		1B-5			1B-128,5B-128,9B-4	
Hawaii															
Idaho														1B-42,5B-42,(P)13B-4,16B-42	
Illinois			23B-1											1B-102,5B-102,9B-34	
Indiana			23B-1	19B-23								1B-13		1B-92,5B-92,9B-5,16B-92	
Iowa			23B-1,24B-1											1B-54,5B-54,16B-54	
Kansas	1B-69,16B-69		23B-1											1B-105,5B-105,9B-99,(P)13B-12,16B-105	
Kentucky				19B-119				18B-27						1B-76,5B-76,9B-9,16B-76	
Louisiana		2B-8												1B-41,5B-41	
Maine														1A	
Maryland										1B-5	1B-4	1B-7		1B-23,5B-23,9B-4	
Massachusetts					1B-3		1B-3								(P)6B-5
Michigan			23B-1									1B-2		1B-73,5B-73,9B-16,16B-73	
Minnesota	1B-40,16B-40		23B-1											1B-84,5B-84,9B-23,(P)13B-84,16B-84	
Mississippi														1B-77,5B-77,9B-4	
Missouri			23B-1	19B-5										1B-96,5B-96,9B-37,16B-96	
Montana	1B-1,16B-1													1B-54,5B-54,9B-33,(P)13B-54,16B-54	
Nebraska	1B-30		23B-1											1B-82,5B-82,9B-33,16B-82	
Nevada			23B-1											1B-12,5B-12	
New Hampshire															
New Jersey												1B-5		1B-10	(P)6B-4
New Mexico														1B-15,5B-15,9B-3	
New York												1B-6		1B-26,5B-26	(P)6B-4
North Carolina		2B-13		19B-18					18B-63					1B-82,5B-82,9B-10	
North Dakota	1B-53,16B-53		23B-1											1B-53,5B-53,9B-53,(P)13B-53,16B-53	
Ohio			23B-1	19B-13								1B-19		1B-77,5B-77,9B-30,16B-77	
Oklahoma	1B-2		23B-1											1B-77,5B-77,9B-40,16B-77	
Oregon														1B-30,5B-30,(P)13B-30	
Pennsylvania						1B-3				1B-1	1B-4	1B-16		1B-57,5B-57	(P)6B-2
Rhode Island															
South Carolina		2B-1							18B-19		1B-3			1B-45,5B-45	
South Dakota	1B-51,16B-51		23B-1											1B-66,5B-66,9B-41,(P)13B-66,16B-66	
Tennessee				19B-73				18B-11						1B-67,5B-67,9B-8,16B-67	
Texas	1B-20		23B-1											1B-206,5B-206,9B-59	
Utah			23B-1											1B-23,5B-23,9B-3	
Vermont														1B-2	
Virginia				19B-19				18B-19	18B-25		1B-2	1B-1		1B-76,5B-76	
Washington														1B-29,5B-29,(P)13B-29	
West Virginia			23B-1	19B-7										1B-21	
Wisconsin			23B-1		18B-11									1B-56,5B-56	
Wyoming	1B-2		23B-1											1B-16,5B-16,9B-3	

2005 MPCI Insurance Writers by State

	AGRO	AFBI	ARM*	CTY*	CROP1	CUSA	FCIA*	FBIC*	FMH	GA*	HEART*	JD	NAU	PLIC	R&H*	RCIS*
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WY	●		●			●	●				●				●	●

Source: RMA website. Current as of January 4, 2005.

* Indicates company has Livestock SRA

AGRO - Agro National LLC
712-256-0968 • www.agronational.com

AFBI - American Farm Bureau Ins. Services, Inc.
888-483-3914 • www.afbisinc.com

ARM - ARMtech Insurance Services
800-335-0120 • www.armt.com

CTY - COUNTRY Mutual Insurance Company
800-255-7965 • www.countrycos.com

CROP1 - Crop1 Insurance
866-765-0552 • www.crop1insurance.com

CUSA - Crop USA Insurance Agency, Inc.
800-635-1519 • www.cropusainsurance.com

FCIA - Farm Crop Insurance Alliance, Inc.
800-826-7090 • www.fcianet.com

FBIC - Farm Bureau Mutual Insurance Company
785-587-6000 • www.fbfs.com

FMH - Farmers Mutual Hail Insurance Co. of Iowa
800-247-5248 • www.fmh.com

GA - Great American Insurance Company
877-4AGLINK • www.MyAgritrust.com

HEART - Heartland Crop Insurance, Inc.
888-789-5566 • www.heartlandcropinsurance.com

JD - John Deere Risk Protection, Inc.
866-404-9057 • www.johndeereriskinsurance.com

NAU - NAU Country Insurance Company
800-942-6557 • www.naucom.com

PLIC - Producers Lloyds Insurance Company
800-366-2767 • www.producerslloyds.com

R&H - Rain and Hail L.L.C.
800-776-4045 • www.rainhail.com

RCIS - Rural Community Insurance Services
800-451-3836 • www.rcis.com