Risk Management Training
for Diversified Family Farmers

Workbook 4

Managing Production Risk

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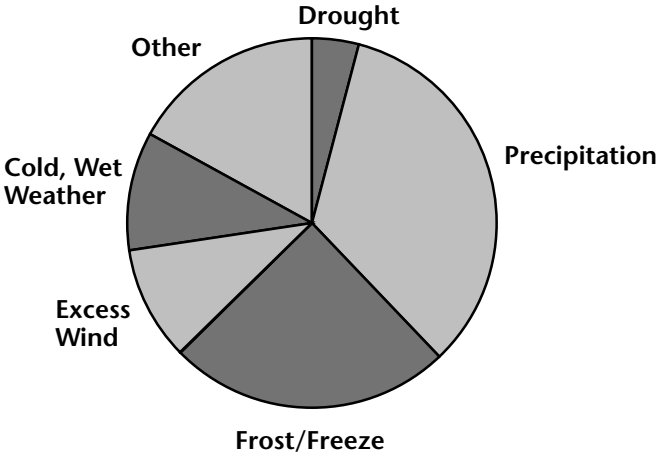
Production Risk

The major sources of production risks are weather, pests, diseases, the interaction of technology with other farm and management characteristics, genetics, machinery efficiency, and the quality of inputs. Following are some risk management strategies you can consider to lower production risks.

What Risks Do Farmers Face?

Millions of dollars are paid out for crop losses each year.



Historically, the major perils affecting farmers in the West are precipitation, freeze, and wind.

Most other risks for growers are horticulturally-based — fertility, pests, diseases — or market-based — supply and demand, loss of a market, transportation problems.

Specialty crop growers have traditionally used non-insurance vehicles to manage risk. Crop diversification is the primary tool. Orchardists planted multiple varieties to ripen over a period of time mitigating the risk of losing the entire crop to pests or weather. Vegetable growers used succession and timed planting to reduce their pest and weather risks and spread their harvest over time. Again, crop diversity played a large role in the risk reduction strategy of specialty crop growers.

With the advent of the Farmers' Direct Marketing Program in California, second-career farmers and people of color were able to enter the farming profession on a small but economically-viable scale. Again, crop diversity coupled with niche crops has been the risk management tools of choice.

With the change brought about in the 1996 Farm Bill and the advent of the USDA Small Farm Program. The entire Department began looking for ways to assist the 70% of U.S. farms that can be defined as small. One of the outcomes has been the increase in pilot programs for crop and revenue insurance vehicles available to specialty crop and animal producers — the dominant agriculture of small farms.

A History of the Crop Insurance Program

From the RMA website, www.rma.usda.gov/policies/cycle/insurance_cycle_g.html 1

Congress first authorized Federal Crop Insurance in the 1930s along with other initiatives to help agriculture recover from the combined effects of the Great Depression and the Dust Bowl eras. The Federal Crop Insurance Corporation (FCIC) was created in 1938 to carry out the crop insurance program. Initially, the program was started as an experiment, and crop insurance activities were mostly limited to major crops in the main producing areas. Crop insurance remained an experiment until passage of the Federal Crop Insurance Act of 1980.

The 1980 Act expanded the crop insurance program to many more crops and regions of the country. It encouraged expansion to replace the free disaster coverage (compensation to farmers for prevented planting losses and yield losses) offered under Farm Bills created in the 1960s and 1970s, because the free coverage competed with the experimental crop insurance program. To encourage participation in the expanded crop insurance program, the 1980 Act authorized a subsidy equal to 30 percent of the crop insurance premium limited to the dollar amount at 65 percent coverage.

Although more farmers took part in the program after passage of the 1980 Act, it did not achieve the level of participation that Congress had hoped for. Therefore, after a major drought in 1988, ad hoc disaster assistance was authorized to provide relief to needy farmers. Another ad hoc disaster bill was passed in 1989. A third one enacted in 1992 gave farmers the option of claiming disaster losses on a farm-by-farm basis for any year between 1990 and 1992. An extremely wet and cool growing season in 1993 caused more losses, and Congress passed yet another ad hoc disaster bill. However, dissatisfaction with the annual ad hoc disaster bills that were competing with the crop insurance program led to enactment of the Federal Crop Insurance Reform Act of 1994.

The 1994 Act made participation in the crop insurance program mandatory for farmers to be eligible for deficiency payments under price support programs, certain loans, and other benefits. Because participation was mandatory, catastrophic (CAT) coverage was created. CAT coverage compensated farmers for losses exceeding 50 percent of an average yield paid at 60 percent of the price established for the crop for that year. The premium for CAT coverage was completely subsidized. Participants paid $50 per crop per county subject to maximum amounts for multiple crops and counties insured by the same individual. Subsidies for higher coverage levels were increased.

In 1996, Congress repealed the mandatory participation requirement. However, farmers who accepted other benefits were required to purchase crop insurance or otherwise waive their eligibility for any disaster benefits that might be made available for the crop year. These provisions are still in effect.

In the same year, the Risk Management Agency (RMA) was created to administer FCIC programs and other non-insurance-related risk management and education programs that help support U.S. agriculture.

Participation in the crop insurance program increased significantly following enactment of the 1994 Act. For example, in 1998, more than 180 million acres of farmland were insured under the program. This is more than three times the acreage insured in 1988, and more than twice the acreage insured in 1993. According to estimates by the USDA National Agricultural Statistics Service, in 1998, about

two-thirds of the country's total planted acreage of field crops (except for hay) was insured under the program. The liability (or value of the insurance in force) in 1998 was $28 billion, the largest amount since the inception of the program. The total premium, which includes subsidy, and the premium paid by insured persons (nearly $950 million) were also record figures.

In 2000, Congress enacted legislation that expanded the role of the private sector, allowing entities to participate in conducting research and development of new insurance products and features. With the expansion of the contracting and partnering authority, RMA can enter into contracts or create partnerships for research and development of new and innovative insurance products. Private entities may also submit unsolicited proposals for insurance products to the RMA Board of Directors for approval. If approved by the Board, these unsolicited insurance products could receive reimbursement for research, development and operating costs, in addition to any approved premium subsidies and reinsurance. After three years the private entity may elect to retain ownership of the insurance product and charge a fee, as approved by the Board, to other insurance providers who sell the product or elect to transfer ownership of the product to RMA. This same legislation also accomplished the following:

- Restrictions on the development of insurance products for livestock were removed.
- Authority was added to allow the Board of Directors to create an expert review panel to provide assistance to the Board in evaluating new insurance products for feasibility and actuarial soundness.
- Premium subsidies were increased to encourage producers to purchase higher insurance coverage levels and to make the insurance program more attractive to prospective producers.

How the Program Works

The crop insurance contract. A crop insurance contract is a commitment between insured farmers and their insurance providers. Either party has the right to cancel or terminate the contract at the end of each crop year. Unless the contract is canceled; it is normally automatically renewed the next year.

Under the contract, the insured farmer agrees to insure all the eligible acreage of a crop planted in a particular county. This choice is made county-by-county and crop-by-crop. All eligible acreage must be insured to reduce the potential for adverse selection against the insurance provider. Adverse selection generally exists whenever the insured person has better knowledge of the relative riskiness of a particular situation than the insurance provider does.

The insurance provider agrees to indemnify (that is, to protect) the insured farmer against losses that occur during the crop year. In most cases, the insurance covers loss of yield exceeding a deductible amount. Losses must be due to unavoidable perils beyond the farmer's control.

Over the last few years, products that combine yield and price coverage have been introduced. These products cover loss in value due to a change in market price during the insurance period, in addition to the perils not covered by the standard loss of yield coverage.

Crop insurance policies also typically indemnify the insured person for other adverse events, such as the inability to plant or excessive loss of quality due to adverse weather. The nature and scope of this "helper" coverage vary depending on the crop. This is because of the differences in crops' individual natures.

Publication of policies

Crop insurance contracts developed by FCIC are published in the Code of Federal Regulations (CFR). Policies may also be developed by commercial, private sector insurance providers. If approved by FCIC, privately developed policies may replace or supplement the policies developed by FCIC. However, these policies are not published as regulations. Instead, a notice of availability is published in the CFR.

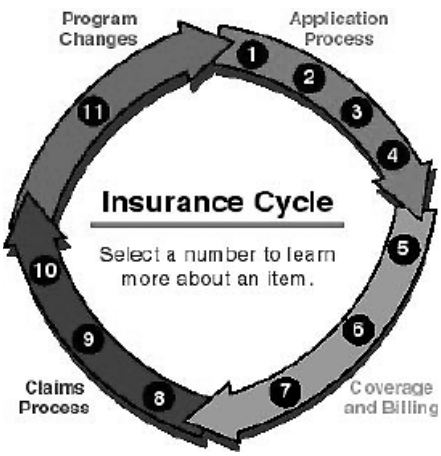
Code of Federal Regulations (CFR)

Government and private sector roles. FCIC's mission is to encourage the sale of crop insurance — through licensed private agents and brokers — to the maximum extent possible. FCIC also provides reinsurance (subsidy) to approved commercial insurers who insure agricultural commodities using FCIC-approved acceptable plans. Since 1998, the private insurance companies reinsured by FCIC have sold and serviced all Multiple Peril Crop Insurance authorized under the Federal Crop Insurance Act.

Since there is both public and private sector involvement in the crop insurance program, the following relationships result:

- A contract of insurance exists between insured farmers and their commercial insurance providers.
- Premium rates and insurance terms and conditions are established by FCIC for the products it develops, or established with FCIC approval for products developed by insurance providers.
- Reinsurance agreements (cooperative financial assistance arrangements) exist between FCIC and the commercial insurance providers.

The Yearly Insurance Cycle



RMA and insurance industry activities follow a timetable known as the insurance cycle. The cycle begins when RMA releases information about insurance products for the next crop year, and ends with changes to the program for the following year.

Policy Renewal/Change Options/Application

The Insurance Cycle begins each year with the insurance offer. Actuarial documents are published annually by the Risk Management Agency (RMA). The actuarial documents list the plan of insurance, crop, type, variety, and practice that may be insured in a state and county, and show the amounts of insurance, available insurance options, levels of coverage, price elections, applicable premium rates, and subsidy amounts. The Special Provisions of Insurance list program calendar dates, and general and special statements that may further define, limit, or modify coverage.

Sales Closing/Cancellation/Termination Dates

Insurance applications must be completed and signed no later than the sales closing date specified in the crop actuarial documents. Applications signed after the crop sales closing date may be rejected by the insurance provider. Insurance coverage is continuous and can be cancelled by either the insurance provider or the policyholder for the following crop year by providing a written notice to the other party no later than the cancellation date specified in the crop policy. For a policyholder insured the previous crop year, any changes he or she wishes to make to the policy coverage must be made on

or before the crop sales closing date. The policy will automatically renew for the subsequent crop year unless the policyholder cancels the policy in writing on or before the crop cancellation date. Insurance coverage may be terminated by the insurance provider for the following crop year for nonpayment of outstanding debt by providing a written notice to the policyholder no later than the termination date specified in the crop policy. The insurance provider may terminate coverage on a crop if no premium is earned for three consecutive years.

Acceptance

Upon receipt of a properly completed and timely submitted insurance application, the insurance provider will accept and process the application, unless the applicant is determined to be ineligible under the contract or Federal statute or regulation. The insurance provider will issue a summary of coverage and the appropriate policy documents to the applicant. After the application is accepted, the policyholder may not cancel the policy for the initial crop year.

Insurance Attaches

For annual crops, insurance attaches annually when planting begins on the insurance unit. The crop must be planted on or before the crop's published final planting date unless late or prevented planting provisions apply. If prevented planting provisions apply, and the crop cannot be timely planted due to the causes specified in the crop provisions, such acreage may be eligible for a prevented planting payment. For perennial crops, insurance attaches each crop year on the calendar date specified in the crop provisions.

Acreage Reports

The policyholder must annually report for each insured crop in the county the number of insurable and uninsurable acres planted or prevented from being planted if prevented planting is available for the crop, the date the acreage was planted, share in the crop, the acreage location, farming practices used, and types or varieties planted to the insurance provider on or before the applicable acreage reporting date specified in the crop actuarial documents. This report is used by the insurance provider to establish the amount of coverage and premium for the crop. Insurance providers may deny coverage if the acreage report is filed after the applicable crop acreage reporting date.

Summary of Coverage

The insurance provider will process a properly completed and timely filed acreage report, and issue to the policyholder a summary of coverage that specifies the insured crop, the insured acres and amount of insurance or guarantee for each insurance unit. The policyholder may make changes to the filed acreage report, if permitted by the insurance provider.

Premium Billing

The annual premium is earned and payable at the time insurance coverage begins. The insurance provider shall issue a premium billing based upon the information contained in the acreage report no earlier than the premium billing date specified in the crop actuarial documents. The premium billing will specify the amount of premium and any administrative fees that may be due. If the premium or administrative fees are not paid by the date specified in the actuarial documents or policy, the insurance provider may assess interest on the outstanding premium balance.

Notice of Damage or Loss

A written notice of damage or loss for each unit is to be filed by the policyholder within 72 hours of the policyholder's initial discovery of damage or loss but not later than 15 days after the calendar date for the end of the insurance period unless otherwise stated in the individual crop policy. The policyholder should refer to the individual crop provisions for additional requirements in the event of damage or loss. These notifications provide the opportunity for the insurance provider to inspect the crop and determine the extent of damage or potential production before the crop is harvested or otherwise disposed of.

Inspection

After the insurance provider receives the written notice of damage or loss, it will be processed and, if necessary, a loss adjuster will be sent to inspect the damaged crop and gather pertinent information concerning the damage. If the policyholder wishes to destroy or not harvest the crop, the loss adjuster will gather the appropriate information, conduct an appraisal to establish the crop's remaining value and complete any forms needed. If the crop has been harvested or will not be harvested by the end of the insurance period, and the policyholder wishes to file a claim for indemnity, the loss adjuster will gather the appropriate information and assist the policyholder in filing the claim for indemnity. It is the policyholder's responsibility to establish the time, location, cause, and amount of any loss.

Indemnity Claim

After the claim for indemnity is processed by the insurance provider, an indemnity check and a summary of indemnity payment will be issued showing any deductions to the amount of indemnity for outstanding premium, interest, or administrative fees.

Contract Change Date

Changes to the insurance program may be made by RMA from one year to the next. The insurance provider will notify the policyholder in writing of any changes to the policy, actuarial documents, or the Special Provisions of Insurance prior to the calendar date for contract changes specified in the crop policy. The policyholder will have the opportunity to review the changes and, if he/she desires, continue the insurance coverage for the following crop year, change the policy coverage, or cancel the insurance coverage. Any changes to the policy coverage that the policyholder makes must be made no later than the crop sales closing date. If the policyholder wishes to cancel the policy, a written notice must be submitted to the insurance provider on or before the crop cancellation date.

Types of Crop Insurance Available to California Specialty Crop Growers

Crop insurance provides two important benefits. It ensures a reliable level of cash flow and allows more flexibility in your marketing plans; if you can insure some part of your expected production, that level of production can be forward-priced with greater certainty, creating a more predictable level of revenue.

Farmers can take a base level coverage (Multiple Peril Crop Insurance) that covers against a 50% loss for an administrative cost. Farmers also have the option of taking additional coverage at additional cost that is still subsidized by the USDA.

Think of your car insurance as an example. You can carry $1000 deductible collision insurance that is much cheaper than $250 deductible. You collect indemnity payments for the portion of a crop that is covered by insurance. If you want greater coverage, you pay a higher premium. Other crop

insurance options include Crop Revenue Coverage that protects both against yield and price losses. This insurance protects against crop losses and against a downturn in commodity prices.

For those crops which are not insurable, or for which insurance is not available in an area, producers can apply for the Non-insured Assistance Program (NAP). NAP provides coverage roughly similar to the Catastrophic Loss Protection (CAT) level of crop insurance. Although NAP requires no administrative fee, it must be applied for prior to planting. Producers should file an annual acreage and production report with the local USDA Farm Service Agency (FSA) office.

Although polices are purchased through private insurance companies, the rates are subsidized by the USDA to make policies more affordable for farmers. Subsidies tend to benefit those producers most who invest in higher levels of coverage. Coverage for any given crop must be arranged before its sales closing date.

There are additional non-subsidized crop risk protection policies available to cover specific risks that may be more prevalent in any given area. Examples of private, non-subsidized crop insurance programs include crop-hail insurance, which offers protection for one specific peril (hail), and various products that supplement federally subsidized insurance.

Part of a crop damaged by hail might 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 the hail.

Transfers the Risk of Failure in Quality or Quantity

Management of yield or price risk through the purchase of crop insurance transfers risk from you to others for a price that is stated as an insurance premium. Crop insurance is an example of a risk management tool that not only protects against losses but also offers the opportunity for more consistent gains. When used with a sound marketing program, crop insurance can stabilize revenues and potentially increase average annual profits.

Crop insurance is like any kind of insurance. You pay a premium for coverage and collect indemnity payments if you have the "accident" you are insuring against. In reality, you hope to never to collect anything from your insurance company because you didn't have an "accident."

Think about your life insurance. Are you disappointed each night because another day went by and you didn't get to collect on your life insurance policy? The same is true of crop insurance. You are better off if you never have to collect on crop insurance because that means you did not incur a crop loss. You spent the premium but you have the assurance that you are covered if a loss does occur.

Another program being offered on a trial basis is Adjusted Gross Revenue Insurance. This program is based more on protecting income and can prevent large variations in income because of crop losses or market losses. It's available in eight California counties in 2002-2003. Unfortunately, it has a January 31, 2003 sales closing date.

One Option in a Production Risk Management Strategy

Buying a crop insurance policy is one risk management option. Producers should always carefully consider how a policy will work in conjunction with their other risk management strategies to insure the best possible outcome each crop year. Crop insurance agents and other agribusiness specialists in the private and public sectors can assist farmers in developing a good management plan.

It's an Individual Decision

Is crop insurance for everyone? No, but it is an option that is available for today's capitalized farmer. What can you afford to lose from a crop disaster? Have you taken every precaution to reduce any chance of experiencing crop losses? If you cannot afford to take the chance of a loss, then maybe crop insurance is something you should check into. Ask if your crops are covered. Ask what is the cost for different levels of coverage. Is the cost worth the potential risk of not carrying insurance? Remember, insurance is not used to guarantee a profit but rather to protect ourselves against losses we cannot afford to bear.

Crop insurance products can help you manage risk by supporting income in bad times.

But building that net costs money. Ask yourself:

- How much coverage do I need for adequate cashflow?
- Which crop insurance product will best complement my marketing plan?
- What are the implications of crop loss on my ability to meet my debt obligations?
- What are the major sources of production risk and what type of crop insurance coverage do I need to protect against those risks?
- What are the costs of the various types of coverage and which offers the best protection for the level of coverage I need?

The government provides substantial subsidies for many crop insurance products. This reduces the cost that you have to pay to build a safety net to cover crop losses or revenue losses.

USDA/RMA — Multiple Peril Crop Insurance

From the USDA Risk Management Agency, www.rma.usda.gov

Multiple Peril Crop Insurance (MPCI) provides comprehensive protection against weather-related causes of loss and certain other unavoidable perils. Coverage is available on over 76 crops in primary production areas throughout the U.S. at 50 to 75 percent of the actual production history (APH) for the farm. Coverage levels of 80 and 85 percent are available for some crops if indicated on the actuarial documents for the county. An indemnity price election from 55 to 100 percent of the Federal Crop Insurance Corporation expected market price (when available on the crop) is selected at the time of purchase. Minimum Catastrophic Risk Protection (CAT) coverage is available for an administrative fee of only $100 per crop per county. MPCI coverage provides protection against low yields and poor quality as well as prevented planting, late planting, and replanting costs for most crops.

Yield Guarantee

The yield guarantee is the historical actual production history (APH) yield times the level of coverage, times the insured acreage, times the insured's share. The APH yield is determined from producer production records for a minimum of 4, up to 10 consecutive crop years. For producers who provide less than 4 years of actual yields, variable Transitional "T" Yields are used to complete the 4-year database. However, the approved APH yield for producers who elect not to supply records is limited to 65 percent of the applicable "T" Yield for the first year the producer is insured.

Production To Count

Production to count is all harvested and appraised production for the unit. Appraised production includes, but is not limited to, production lost to uninsured causes, and mature unharvested production (may be adjusted for quality deficiencies and excess moisture).

Units

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. The basic insurance unit is all insurable acreage of the insured crop in the county on the date coverage begins for the crop year in which the producer has a 100 percent share or which is owned by one entity and operated by another specific entity on a share basis. Basic units may be further divided into optional units. Optional units are determined by section, section equivalents, FSA Farm Serial Number, non-contiguous land (for certain perennial crops) and irrigated and non-irrigated practices. When the policy allows, optional units may be established, provided the crop is planted in a manner that results in a clear and discernible break in the planting pattern at the boundaries of each optional unit, and the producer keeps separate identifiable records of planted acreage and harvested production for each optional unit.

Contract Changes

MPCI is a continuous policy and will remain in effect for each crop year following the acceptance of the original application. Producers may cancel the policy, a crop, a county, or a specific crop in a specific county, after the first effective crop year, by providing written notice to the insurance provider on or before the cancellation date shown in the applicable crop provisions. Producers must

request policy changes from their insurance provider on or before the sales closing date for a change of price election or coverage level. In addition, requests to increase the maximum eligible prevented planting acreage above the limitations contained in the crop policy must be made by the sales closing date for the applicable crop. Contract changes involving a successor-in-interest application and corrections of a producer's name, address, identification number, administrator, etc. may be made at any time.

Reporting of Acreage and Crop Damage

Each crop year the producer is required to submit an acreage report by unit for each insured crop. . The acreage report must be signed and submitted by the producer on or before the acreage reporting date contained in the Special Provisions for the county for the insured crop. In the event of crop damage, producers should immediately notify their insurance provider of the damage.

Crop Availability

Crops covered by MPCI are as follows: almonds, apples, beans (processing) canola/rapeseed, citrus, citrus trees, corn, grain sorghum, soybeans, upland cotton, extra long staple cotton, cranberries, dry beans, figs, forage seeding, forage production, grapes and table grapes, hybrid seed corn and hybrid sorghum see, macadamia nuts and trees, nursery, onions, peaches, peanuts, pears, peas (dry and green), fresh market peppers, plums, popcorn, potatoes, prunes, raisins, rice, safflower, small grains (wheat, barley, oats, rye, flax), stone fruit (apricots, fresh and processing peaches, fresh nectarines), sugar beets, sugarcane, sunflower seeds, sweet corn (fresh market and processing), tobacco, tomatoes (fresh market, processing), and walnuts.

MPCI Benefits

MPCI benefits include cash-flow protection, good loan collateral, added confidence when developing crop marketing plans, stability for long-term business plans and family security. The Government shares in the premium costs.

Where to Purchase MPCI

All MPCI insurance policies are available from private insurance agents.

Mention of product names or firms does not necessarily constitute endorsement by the Risk Management Agency or the U.S. Department of Agriculture over others not mentioned, and is for information purposes only.

Coverage for Organically Grown Insurable Crops

USDA Sets Guidelines to Provide Crop Insurance for Organic Farming Practices

The Agricultural Risk Protection Act of 2000 (ARPA) provides that organic farming practices be recognized as good farming practices. Prior to this ruling, crop insurance policies may not have covered production losses when organic insect, disease, and/or weed control measures were used and such measures were not effective.

Written Agreements

The Federal Crop Insurance Corporation (FCIC) is currently revising the Basic Provisions to reflect the modifications made by ARPA. Until specific insurance program procedures are set in place and for the crop year 2002, USDA's Risk Management Agency (RMA) will recognize organic farming practices as good farming practices by providing coverage for organic producers by written agreement. Written agreements are not available for catastrophic risk, income protection, revenue assurance plans of coverage or for pilot program crops, unless permitted by the crop provision.

Coverage Availability

Coverage for organic acreage for crop year 2002 will be available for both transitional and certified organic acreage in accordance with approved underwriting guidelines and procedures. Insurable damage caused by insects, disease or weeds will be covered if recognized organic farming practices fail to provide an effective control. Damage caused by the failure of organic farming practices to control weeds due to an insured cause of loss is also covered. If any acreage does not qualify as a certified organic acreage or transitional acreage location within the unit by the final acreage reporting date, such acreage will be insured under the provisions of the standard policy and applicable rates and coverages for the conventional practice or type in effect on the final acreage reporting date.

Price Election and Dollar Amount of Insurance

The price elections or dollar amounts of insurance applicable to both certified organic acreage and transitional acreage will be the price elections or dollar amounts of insurance published by RMA for the crop for the current crop year. The insured is required to maintain separate APH databases for "conventional and transitional or certified organic acreage. Premiums will be adjusted to recognize any additional risk associated with covering organic crop acreage.

Crop Losses

If a written agreement is not requested for organic farming practices, loss adjustment procedures within the applicable crop insurance policy will apply. Example given: appraisals for uninsured causes of loss will be applied when conventional farming practices would have prevented damage due to insects, disease, or weeds.

Additional Information/Questions

Producers should consult their crop insurance agent to obtain specific information and applicable deadlines. A list of crop insurance agents is available at all USDA Service Centers throughout the U.S. or at the website *www.rma.usda.gov/tools/agents/*