



A FARMERS GUIDE TO

# Revenue Management & Marketing

**Guide to**

*Assessing Risk*

*Business Planning*

*Creating a Marketing Plan*

*Selecting Crop Insurance Products*

*Developing Marketing Strategies*

*Selecting a Crop Insurance Agent*

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**T**he Iowa Soybean Association (ISA) realizes that you face many challenges in your farming operation. We believe useful information can help you make more profitable decisions for your business.

Recently, ISA received a grant from the United States Department of Agriculture (USDA) to provide risk management and marketing education and consulting to corn and soybean farmers in the Midwest.

With this grant, ISA has published *A Farmers Guide to Revenue Management and Marketing*. This publication will help you create a business plan, evaluate your tolerance for risk, create a marketing plan, compare crop insurance products and evaluate the marketing tools available for your operation.

The Iowa Soybean Association hopes this information will help you assess your financial and production risks and develop a strategy for success.

# Defining Risk

**Risk has always been a factor in farming.** However, global competition, free trade, new technologies and legislation affecting production agriculture has added new challenges.

Managing those risks has become a requirement rather than a recommendation. If a farmer wants his business to survive and thrive, it is essential for him or her to create plans to manage risks.

There are five main sources of risk that should concern producers. They are:

- Production risks, which encompasses diversification, production capacity, custom farming and share leases.
- Marketing risks, which are sales, hedging, options and government programs.
- Financial risks, which include interest rates, loans, available credit and net worth.
- Institutional risks, which result from changing rules and/or regulations affecting the agricultural producers; and
- Human or personal risks, such as death, injury, divorce or other events that disrupt the business.

These sources of risk and their outcomes are inherent in all stages of farming from beginning farmers to well-established farmers. Producers need to understand potential problems these risks can bring to the business and learn how they can manage these risks and protect their lifelong investments. Here are some considerations under each possible risk factor.

- As new technologies emerge in varieties of seed, herbicides and pesticides and vaccination programs for livestock, production risk becomes increasingly important. Producers need to be aware of the latest advancements and technologies that can help them create more profits in this area.

- The use of forward contracts, hedges and government programs can help increase profit margins in marketing. Recently, managing government

programs has become increasingly important because these payments have become a greater proportion of farm income and can be the difference between profit and loss.

- Financial risk has become more important to manage with increased bank mergers and limitations of capital for agriculture production. The volatility of interest rates on borrowed capital and operating loans may cause cash flow problems for the business.

Producers need to manage their business to help increase equity and net worth so that the operation shows growth and potential.

- Institutional risks such as government regulations, which may affect the financial and production plans of your operation, are becoming more complex. Major changes in environmental regulations will effect the operation and profitability of your farm.

- Finally, human risk is always a factor. As more farmers become older and reach retirement, more beginning and younger farmers will need a solid management plan to help with a smooth transition.

Defining the various types of risk is just the beginning. Throughout this publication it is important for each producer to think about risk possibilities and how they would handle these situations within their operation. We have included a risk profile for farmers to use to examine their tolerance for risk before they consider options on crop insurance and marketing. Beyond the information provided here, farmers could seek additional risk and financial assessments by working with a lender or financial advisor.

One way to chart the direction and long-term goals of the operation is to create a business plan. This is an excellent way to examine the current status of the business and it is a great place to start managing risk.



# Creating a Business Plan

**A business plan is like a road map for the operation.** It describes the key areas of the business including operations, finances, management and marketing. The plan should support a mission statement, goals and objectives set forth by the owners. Business plans are useful, both internally by owners and managers as a guide to the future of the business and externally as a tool for acquiring needed capital from banks or investors.

The thoroughness of a business plan usually depends on the audience that will use the plan and the scope and situation of the business. A proposed new business that produces a nontraditional product and is seeking outside investor capital would need a much more comprehensive business plan than an existing business that is about to make minor adjustments to its operation.

Producers have largely ignored business plans in the past. Few have had to find investor capital for their operations. As margins continue to tighten, farmers will have to plan their business many years into the future in order to survive. Business plans will become a standard component of each operation.

## PURPOSE OF A BUSINESS PLAN

A business plan serves two basic purposes:

1. to help guide the business management team in making decisions to achieve the specified goals and objectives, and
2. to help sell the feasibility of the business to potential bankers or other investors for the purpose of acquiring needed capital.

The business plan should be tailored to the preferences and concerns of the readers (either the management team or lenders). Content of a business plan depends on several factors including

who the audience is, the type of business, and how the business plan will be used. A business plan can be organized in a variety of ways as long as it serves its purpose.

For example, for a new producer starting a production agriculture business and seeking financing, a business plan would benefit both him and the banker or other investor. The process of developing the business plan will provide that beginning farmer with valuable insight into the operation, some of the challenges that may lie ahead and strategies for managing these challenges. If that farmer feels that obtaining financing will not be easy, a more formal and detailed business plan can help convince potential bankers or investors.

A business plan will also benefit an existing operation, especially if it is proposing a major change to the operation. In this situation, the plan should describe the proposed changes, the financial obligations and the overall goals of the operation.

## COMPONENTS OF A BUSINESS PLAN

While the components of a business plan may vary depending on the situation, complete business plans generally contain the following:

- Business Description and Organization
- History
- Resource Inventory including:
  - Human*
  - Land*
  - Equipment*
  - Capital*
  - Commodities*
  - Natural Resources*
- Mission Statement
- Goals and Objectives
- Production Plan
- Financial Plan
- Market Plan
- Legal and Liability
  - Insurance*
  - Succession and Estate Planning*

## BUSINESS DESCRIPTION AND ORGANIZATION

The first portion of the business plan includes an overview of the operation. It describes the history of the business, location, products produced and/or services provided, family members involved and their responsibilities, the organizational structure of the business, resource needs and availability. A summary of the business' strengths, weaknesses, opportunities and threats (SWOT analysis) is also a very important component.

Organizational structure refers to two areas: (1) whether the business is a sole proprietorship, limited or general partnership, corporation, or other form of organization, and (2) the management team. The management team should include the family members involved, any hired employees, the lender and any hired consultants. Each should be listed in the plan. In addition, a description of the number of employees and their compensation should also be included. For both management and other employees, a brief description of their duties, responsibilities and decision-making authority should also be included. If a banker or investor will be looking at the business plan, they will be interested in knowing who is involved and what are their qualifications and responsibilities.

## MISSION STATEMENT, GOALS AND OBJECTIVES

A business plan must define why the operation exists and where management wants it to be in the future. The existence of the business is defined in a mission statement.

A mission statement is a broad statement that expresses the business' purpose. Every member of the management team should be involved in writing it and share in its philosophy. An effective mission statement is the foundation for determining goals and objectives and steering the business in the proper direction.

The goals and objectives should relate to production, production costs, debt ratios, risk management, expansion, adding a partner into the business or any other aspect of the business. Goals define what the operation will look like in the future, while objectives are targets to be met in order to achieve the goal and ultimately fulfill the mission statement. One common theme found in most business planning publications regarding goals is the concept of SMART goals. This concept suggests that goals must be **s**pecific, **m**easurable, **a**ttainable, **r**ewarding and there should be a **t**ime frame specified for reaching each goal.



The pyramid above illustrates the relationship between the mission statement, goals and objectives. Strategy and tactics, the top two layers, are the final two steps to achieving your mission. Strategies are the overall plans for achieving the long-range goals and objectives, while tactics refer to how to accomplish the strategies and objectives through day-to-day operations.

### PRODUCTION PLAN

The production plan conveys the type of commodities and the quantity that will be produced. Depending upon the detail of the business plan, three-year projections of production should be included. The information in the production plan needs to be presented so that the reader can easily understand the information. These same figures are included in the financial plan.

For crop farms, the production plan should include the estimated acreage for each crop each year (crop rotation) and an estimated yield for each crop. Estimated production levels can then be combined with estimated prices to generate some of the needed figures for the financial component. Livestock operations will have several more variables that need to be included. The livestock production plan must clearly identify all related production information, including the size of the herd, cull rates, weaning rates, weaning weights, rates of gain, purchase price, sales prices, etc. If there is a replacement herd involved, such as with a cow herd or swine farrowing enterprise, the production assumptions for the replacement herd need to be defined separately from the breeding herd.

In any case, the production plan should be defined for a minimum of three years. While changes will occur, these projections will begin to outline where the business is going and if the business can reach the objectives and goals.

### FINANCIAL PLAN

The primary purpose of the financial plan is to illustrate whether or not the business is feasible. The financial plan typically includes three years of pro forma (projected) financial statements including (1) the income statement, (2) the cash flow statement and (3) the balance sheet. This information should be closely tied to the production plan figures. For an existing business, including the actual financial statements for the past two years helps put the projected financial statements into perspective with how the business has performed in the past.

Some additional information that should be contained in the financial plan is:

- The amount and timing of money that will be borrowed
- The specific use of these funds (operating, land, equipment, etc.)
- The length of the loan(s) and interest rates
- The financial risks associated with the business
- Strategies you will use to minimize these risks

These are key issues the owner and/or manager need to consider. It is also information that lenders or other investors will want to see. One simple approach to analyzing risks and the feasibility of the business is to look at the impacts of varying levels of income, such as 10, 20 and 30 percent increase or decrease in your budgeted gross operating receipts.



The income statement and balance sheet are usually projected on an end-of-year, annual basis while the cash flow statement is usually presented on a monthly basis.

### MARKET PLAN

The market plan component should not be confused with an annual marketing plan that a producer would develop for marketing the operation's production. While you are encouraged to develop an annual marketing plan for the first year of the projection period, the market plan section should provide information on market structure for the commodities you plan to produce and describe how your product fits into the market.

The structure and content of the market plan will vary somewhat depending on the commodity you are trying to market. The plan should provide some analysis of what the current market situation is and what you think the market will look like in the next three to five years. This type of long-range market analysis can address projected U.S. production, total supply and demand, federal farm programs, cycles and other anticipated factors. Researching what market analysts are saying about current and future market conditions can be beneficial in developing this portion of the market plan.

For commodities that are sold through major market channels, such as cotton and feeder cattle, the market plan should also address strategies you will use to minimize price risk. These strategies can involve futures, options, marketing pools and forward contracts or any combination.

For businesses producing fruits or vegetables, specialty products or other commodities not marketed through major channels, a market may have to be developed. As such, the market plan needs to define potential buyers (target market), distribution channels, middlemen and potential pricing mechanisms such as contracts. For beef producers selling specialty beef products or participating in a beef alliance, this aspect of the market program should be addressed.

The market plan section should include a detailed written annual marketing plan for the first year of the projection period. A written annual marketing plan, which uses information from other parts of the business plan, involves determining marketing objectives and goals, developing your personal market outlook for the year, identifying available marketing tools you feel comfortable using, determining target price and date triggers and identifying the strategies you will implement to accomplish the marketing objectives and goals you have set forth. *(Details on creating a marketing plan follow the business plan section.)*

### LEGAL AND LIABILITY ISSUES

This portion of the business plan should define those risks that are unseen by the preparer. The business plan should outline insurance needs, legal liability and succession of the operation.

People and businesses face risks every day that could jeopardize their future. Managing these risks is usually through the use of insurance. While there are numerous risks that businesses are exposed to, they generally fall into five broad categories: loss of key employees from death, illness or accident, legal liability and property

loss. To minimize the possibility of catastrophic loss, several types of insurance products are available to provide financial protection. The use of a business entity can also be used to manage risks. The business plan should address the strategies you use for managing these risks. A bank or investor will have a keen interest in this area.

Another area that needs to be addressed is two-fold: (1) succession planning and (2) estate planning. Succession planning is the means by which ownership and management of the operation will be transferred to someone else. The succession plan needs to specify when this will occur, or what events will trigger the transfer, such as retirement or death. If the business will cease operations at some point in the future, the plan needs to include a liquidation plan. Planning ahead for this important event will ease the transition.

The estate plan is usually closely related to the succession plan and involves planning for the transfer of all property to your beneficiaries. While estate planning can be a very involved process, the business plan needs only to summarize the objectives of your estate plan and the estate planning vehicles used such as wills and/or trusts.

*Dean McCorkle and Stan Bevers, Extension Specialists-Risk Management and Associate Professor and Extension Economist, Texas Agricultural Extension Service, The Texas A&M University System.*

# Risk Tolerance Assessment

**If a business plan is a road map to success, the next section will help you determine how comfortable you want the ride to be.** Does a smooth, safe ride sound best? Are you comfortable with a few bumps and hills? Or, do you want to take the narrow, winding, less traveled but more exciting path? The following

risk management profile helps you to assess your tolerance for risk. This assessment will help you create a marketing and risk management plan.

*Circle the most appropriate answers for your own farming operation.*

.....

**1. What percent of your gross taxable income last year came from farming?**

- a) 0 – 5%    b) 6 – 25%    c) 26 – 50%    d) 51 – 75%    e) 76 – 100%

**2. What percent of your gross farm sales comes from (circle all that apply)**

	(a)	(b)	(c)	(d)	(e)
Corn and Soybeans	0 – 5%	6 – 25%	26 – 50%	51 – 75%	76 – 100%
Other Crops	0 – 5%	6 – 25%	26 – 50%	51 – 75%	76 – 100%
Swine	0 – 5%	6 – 25%	26 – 50%	51 – 75%	76 – 100%
Beef Cattle	0 – 5%	6 – 25%	26 – 50%	51 – 75%	76 – 100%
Dairy/Milk	0 – 5%	6 – 25%	26 – 50%	51 – 75%	76 – 100%
Other Sources	0 – 5%	6 – 25%	26 – 50%	51 – 75%	76 – 100%

**3. How much total liability insurance do you carry?**

- a) None    b) Don't know    c) Under \$1 million    d) \$1 – 3 million    e) Over \$3 million

**4. What type of crop insurance do you carry?**

- a) None    b) 50% MPCl    c) 55 – 65% MPCl    d) 70 – 75% MPCl    e) Crop revenue ins.

**5. Do you carry hail insurance on any of your crops?**

- a) No    b) Yes

**6. What percent of crop sales do you price before harvest?**

- a) None    b) 1 – 25%    c) 26 – 50%    d) 51 – 75%    e) Over 75%

**7. Do you use the futures market to price any of your crops and livestock?**

- a) Never    b) Hedge occasionally    c) Hedge regularly  
d) Speculate occasionally    e) Speculate regularly

**8. Have you ever been treated for the following medical conditions?**

- a) Depression    b) Stress    c) Mild heart condition    d) severe heart condition  
e) Stroke that required by-pass

**9. How many people could take over management of your farm for 6 months if you were suddenly disabled?**

- a) No one    b) One person    c) More than one person

**10. What is the ratio of total liabilities to total assets for your farm business?**

- a) Debt-free    b) Under 20%    c) 20 – 50%    d) Over 50%    e) Don't know

**11. What percent of the grain and forage that you feed to livestock do you purchase from outside sources?**

- a) Do not have livestock    b) None    c) Less than half    d) Over half

**12. What percent of your total cropland is leased?**

- a) None    b) 1 – 25%    c) 26 – 50%    d) 51 – 75%    e) Over 75%

**13. If you lease row cropland, what is the most common type of lease you have?**

- a) None    b) Fixed cash    c) Flexible cash    d) Crop share    e) Custom farm

Assessment continued on next page.

ASSESSMENT

14. How much of your livestock production is carried out under a production contract or custom feeding arrangement?

- a) No livestock    b) 1 – 25%    c) 26 – 50%    d) 51 – 75%    e) 76 – 100%

**Scoring:** For each question/example, write the numerical score that corresponds to your answer in the blank at the right.

- |     |   |       |
|-----|---|-------|
| 1.  | a) 1 point    b) 2 points    c) 3 points    d) 4 points    e) 5 points  | _____ |
| 2.  | 0 points for each answer in column (a)                                  | _____ |
|     | 1/2 point for each answer in column (b)                                 | _____ |
|     | 1 point for each answer in column (c)                                   | _____ |
|     | 2 point for each answer in column (d)                                   | _____ |
|     | 4 point for each answer in column (e)                                   | _____ |
| 3.  | a) 5 points    b) 4 points    c) 3 points    d) 2 points    e) 1 point  | _____ |
| 4.  | a) 5 points    b) 4 points    c) 3 points    d) 2 points    e) 1 point  | _____ |
| 5.  | a) 3 points    b) 1 point   | _____ |
| 6.  | a) 4 points    b) 3 points    c) 2 points    d) 3 points    e) 4 points | _____ |
| 7.  | a) 3 points    b) 2 points    c) 1 point    d) 3 points    e) 5 points  | _____ |
| 8.  | Score 1 point for each one circled                                      | _____ |
| 9.  | a) 5 points    b) 3 points    c) 1 point                                | _____ |
| 10. | a) 1 point    b) 2 points    c) 3 points    d) 4 points    e) 5 points  | _____ |
| 11. | a) 3 points    b) 1 point    c) 2 points    d) 4 points                 | _____ |
| 12. | a) 1 point    b) 2 points    c) 3 points    d) 4 points    e) 5 points  | _____ |
| 13. | a) 2 points    b) 5 points    c) 3 points    d) 2 points    e) 1 point  | _____ |
| 14. | a) 3 points    b) 4 points    c) 3 points    d) 2 points    e) 1 point  | _____ |
|     | <b>Total points</b>   | _____ |

- |                          |                 |  |
|--------------------------|-----------------|--|
| <b>If your score is:</b> | <b>0 to 20</b>  | You should sleep like a baby.                    |
|                          | <b>21 to 32</b> | A little bit of risk makes life interesting.     |
|                          | <b>33 to 42</b> | You are taking some chances — are you protected? |
|                          | <b>43 to 52</b> | You are running with the high rollers.           |
|                          | <b>53 to 65</b> | Do you really enjoy living on the edge?          |

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ToLearn

# Creating a Marketing Plan

**Most producers probably have an idea of their tolerance for risk.** By completing the risk profile, you have it in front of you in black and white. Knowing your risk tolerance is critical. Keep your risk assessment in mind as you work on a marketing plan.

## OVERVIEW OF A MARKETING PLAN

With the increased volatility in the markets, it is important to determine your own financial security. In this more uncertain and risky future, failing to plan may be the same as planning to fail.

A marketing plan will help you develop a strategy for marketing crops. In completing this document, you will identify and quantify costs, set price goals, determine potential price outlook, examine production and price risks.

Each marketing year has some similarity to previous years, but there are always new twists and turns. Market experts will predict the outcome for each day, week and year, but farmers need a plan that will help them maintain perspective and stay on course.

## THE IMPORTANCE OF HAVING IT IN WRITING

As discussed with the business plan, the importance of having information in writing is critical to the success of the plan. Nowhere is that more important than with a marketing plan.

As external market factors change, the marketing plan may need to be adjusted. Having a written plan increases the discipline used to stick to the plan and it is a good way to check the logic or the accuracy of decisions that were made after the year has ended. By putting the plan in writing and sharing it with a spouse or business partner, you will be reminded of the plan you committed to follow. Writing

down both the original plan and the changes in order to help analyze your decisions and thought processes later. Then, you can determine what analysis, strategies or disciplines have room for improvement. This is one of the most critical reasons for having a written plan.

Once a plan has been put together, start playing the “what if” game or taking a sensitivity analysis. Test the plan by asking yourself how you would handle certain market scenarios. It is extremely important for you to be honest with yourself and evaluate what you would do in the worst-case scenario. A farmer cannot afford to let one big mistake put him or her out of business.

## MARKETING PLAN DISCIPLINE

Marketing involves emotion, science, discipline and analysis. The best marketing plan will fail without the self-discipline to stay on track. Unfortunately, letting emotions rule is easy when prices are moving. When prices rise, it is hard to resist trying to squeeze an extra few cents from the market. And, it is easy to panic when prices fall. In marketing, NOT making a decision IS a decision. A marketing plan is of little value if actual decisions deviate from the plan. Having a written marketing plan will help ensure discipline. Contingency plans, as part of the basic marketing plan, will also help. What to do if the price doesn't reach the desired level and what to do if the crop is not as large as expected are important contingency actions when the market does not develop according to your general expectations.

## COMPONENTS OF A MARKETING PLAN

- **Financial Situation and Goals.** The first step in preparing a marketing plan is to review the current financial situation. A review of the financial health of the operation (financial statements, debt load, non-farm income, etc.) will provide an initial idea of the amount of risk the operation can bear. In addition to the financial situation, goals and objectives, personal risk preferences, age, etc. will enter into the decision about what to produce, how to produce and market the product, the risk management tools that will be used and how much risk will be accepted or avoided. In some cases, lender requirements may be an overriding factor. More lenders may require producers to have at least some price and/or production risk protection at a profitable level before they will approve a production loan.
- **Determining What to Produce and Setting Price Goals.** The second step is to determine which commodity/commodities to produce and what price is needed to fulfill goals. Given the increased planting flexibility associated with the farm bill, you must determine which crop or livestock enterprises are possible alternatives. The list of alternatives can be compared by calculating the cost of production and break-even prices. Often farmers calculate a break-even price to cover only production and harvesting expenses. As one economist put it, “You can go broke breaking even.” Calculate the price necessary to fulfill goals. These goals should include gaining enough income to pay production expenses and debt obligations, provide ample income for cash flow and possibly contribute capital to operator equity. Additional goals could be sending a child to college or purchasing new machinery.

At this point, a sensitivity analysis should be performed to see how much a 5, 10 or 20 percent change in yields will affect break-even prices. Once you have an idea of the price objectives that will be needed in order to meet costs and needs, compare different crop alternatives to existing forward pricing opportunities and outlook projections. This will help you get an idea of which crop may be more profitable or less risky during the coming year. Of course, this needs to be evaluated along with agronomic and crop rotation considerations.

■ **Market Outlook and Expectation.**

The third component of the marketing plan is to assess the market situation and determine what might happen to prices as the production and marketing year progresses. While you may not be able to make precise price forecasts, it may be possible to get an idea of what the market will offer for prices on the marketing horizon.

Knowing markets trends can help in developing a marketing strategy. Most commodity prices are seasonal. Seldom will the highest price for a seasonally produced commodity occur when harvest is in process, but it does occasionally happen in short crop years. Some of the highest prices and best pricing opportunities commonly occur prior to harvest, such as at planting or pollination time.

How will the market act this year? Supply and demand for commodities around the world will dictate where prices go in the long run. Also, keep in mind that the political process in the United States and around the world influences supply and demand. In the short run, market prices also can be influenced by technical

analysis, as many traders watch and follow those signals. In the marketing plan, write down the factors that could influence prices. Relevant market factors could include current U.S. and world ending stock levels, projected consumption and exports, growing conditions in the United States and around the world, changes in trade policies, economic or currency fluctuations, seasonal or cyclical price tendencies, and price chart formations or other technical indicators. Again, remember that a marketing plan must be dynamic. As conditions change, incorporate the changes into the marketing plan.

- **Production Risk Tools.** The fourth component of the marketing plan is production risk. There are numerous management practices such as irrigation, diversification and dispersion of land holdings that can be used by producers to help in the struggle against “Mother Nature” to reduce production risk. Beyond the cultural practices, other tools for reducing risk include using futures and options, as well as a growing list of insurance products. Futures and options have some inherent difficulties and have not been easily accepted by producers. Crop insurance also has its detractors, but insurance providers have responded by providing insurance products to cover yield and revenue risk.

The tools for managing production and revenue risk are important not only because they reduce risk due to yield loss, but also because of their interaction with the pricing tools. Used correctly, they allow more flexibility to producers who wish to do more pre-harvest pricing. *(More information on marketing tools follows the crop insurance section.)*

- **Price Risk Tools.** The fifth component of the marketing plan is to know what pricing alternatives are available. A word of caution, it is not an alternative if you do not know how to use it. Producers have a wide array of pricing tools in their arsenal, yet many are content to sell their commodity at harvest or shortly thereafter. You need to explore, learn and use alternatives in the future. A few examples of available tools are forward contracts, hedging with futures and options, minimum price contracts, basis contracts, cooperative pools, harvest time cash sales and storage. *(More information on marketing tools follows the crop insurance section.)*

Each pricing alternative has advantages and disadvantages, and no one alternative is the best year after year. Many producers are reluctant to forward contract because of production uncertainties. Once the crop is sold, there is risk that prices will move higher. Buying a put option allows a producer to forward price his or her commodity prior to planting and still has upside price potential, but premiums are sometimes expensive. One of the biggest advantages of diversifying by using several of the alternatives is that it allows a farmer to spread sales out and gives him or her a longer marketing horizon to look for profitable pricing opportunities.

■ **Price and Date Objectives.** In this section of the marketing plan, you can begin to combine the information from the previous sections (cash flow needs, costs, price objectives, outlook, production and price risk tools) and start identifying price and date triggers. Decide what date you would like to have some pre-harvest sales made. What price is needed pre-harvest versus what would be accepted post-harvest? Are there some seasonal price tendencies you should try to capture?

■ **Strategies.** Probably the most difficult, yet most important, component of the marketing plan is determining a way to combine all of the information into an overall strategy. This requires discipline and takes into account all the previous information including expected production, break-even price, market outlook, etc. You need to have a plan that covers what to do if prices rise, but also what to do if prices decline.

As an example, consider an upcoming corn crop. You may choose to scale-up sales, selling 10 percent increments of expected production at increasingly higher price levels. At what price would the first portion of the crop be sold or hedged? What tool should you choose to price the crop? Would you price only the insured production if it were pre-harvest? What if, by July, prices had climbed to \$3.50 per bushel, the U.S. crop was looking excellent and prices were expected to fall? How much would you have priced using any tool? What will you do if prices decline to the break-even and you have not priced any of the crop yet? Even if you think prices will go higher, do you need some downside protection?

## EVALUATE THE PLAN

Finally, the marketing plan needs to be evaluated both during and after the end of the marketing year. Did you reach your price objectives? What was the average price reached? What was the market's average price? How did the experts do? Determine what worked, what did not and why. Evaluating the plan will help identify areas that need additional attention. You may need to expand your alternatives by learning more about specific marketing strategies. Having a marketing plan will help take some of the emotion out of marketing, but it takes discipline to execute the plan.

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# Comparing and Selecting Crop Insurance Products

**Crop insurance has significantly evolved in the past five years to provide farmers with new and innovative products to protect both production and financial risks in their operation.**

With the advent of products such as Revenue Assurance and Crop Revenue Coverage, farmers have a host of new tools to better manage their risk.

At the same time, the introduction of these products may have caused some confusion for farmers who are trying to understand the various aspects of each product and specifically how these products can apply to their specific risk situation.

Following is a summary of the various crop insurance products available today.

## MULTIPLE PERIL CROP INSURANCE (MPCI)

Multiple Peril Crop Insurance provides comprehensive protection against weather-related causes of loss and certain other unavoidable perils. The coarse grain provisions include corn, grain sorghum and soybeans. Coverage levels are available from 50 to 75% in increments of 5% (80 and 85% coverage levels available in limited areas) of the Actual Production History (APH) up to 100% of the price election. Coverage is expressed as a bushel guarantee (APH yield times the coverage level) and may be adjusted for excessive moisture and quality deficiencies. Minimum coverage (CAT) is available at 50% of the APH and 55% of the price election (50/55). MPCI provides late planting, prevented planting and replanting protection. (See the following prevented planting description for additional information on prevented planting).

## YIELD GUARANTEE

The guarantee is the historical yield (APH), times the level of coverage, times the insured acreage.

## PRODUCTION TO COUNT

The actual production plus any yield appraisals less any adjustments for excess moisture or poor quality results in the production to count for the insurance unit. Under these provisions, mature corn, grain sorghum and soybeans may be adjusted for moisture and quality deficiencies.

## LOSS PAYMENT

A loss payment is calculated by subtracting the net amount of production from the yield guarantee and multiplying the result by the MPCI price election and ownership share.

## UNITS

The basic insurance unit is all the acreage of the crop in the county in which the policyholder has 100% ownership or shares with the same person. Most basic insurance units can be further divided into optional units. Optional units may be divided by sections or section equivalents (in areas without sections or section equivalents, separate farm serial numbers may be used) and by irrigated or dryland practices. In AR, LA, and MS, units are only available by FSN. To qualify, a producer must have individual records for each unit and the planting pattern between the units must have a discernible break.

## BENEFITS

1. Confidence for preharvest crop sales.
2. Stability for long-term business plans.
3. Improved risk and financial management.
4. Cash flow safety net.
5. Loan collateral.
6. USDA shares in premium costs.

### How It Works (corn illustration)

<b>Bushel guarantee</b>	100 Bu./A. X 75% X 100 A.	= 7,500 Bu.
<b>Production to count</b>	60 Bu./A. X 100 A.	= 6,000 Bu.
<b>Production loss</b>		1,500 Bu.
<b>Loss payment</b>	1,500 Bu. X \$2.00 price election	= \$3,000

### PREVENTED PLANTING COVERAGE (PP)

Prevented Planting coverage provides a payment to growers when they are unable to plant their crops due to an insurable cause. Perils covered are weather related and include drought. Prevented planting coverage for the same insured cause of loss event can continue up to two years.

### DOLLAR GUARANTEE

The guarantee is the protection per acre for timely planted acreage (historical yield multiplied by the level of coverage and the MPCl price election or the higher of the early or near harvest Board of Trade futures price for the harvest contract for CRC) multiplied by the applicable prevented planting coverage percentage. Additional prevented planting coverage levels of plus 5% and plus 10% are available for a surcharge unless these options are not provided for in the county actuarial table (not available for CAT coverage level).

### PRODUCTION TO COUNT

Acreage prevented from being planted must remain idle or be planted to a cover crop to be eligible for a prevented planting payment. Production from planted acres in the unit does not count against the prevented planting guarantee (indemnity).

### MAXIMUM ELIGIBLE PREVENTED PLANTING ACRES BY CROP AND COUNTY

Maximum eligible prevented planting crop acreage is limited to the maximum number of acres certified for APH purposes or reported for insurance for the crop in any one of the four

most recent calendar years (or the number of acres specified in a processor contract). If an insured farmer has not produced any crop for which insurance was available in any of the four most recent calendar years, eligible acres will be the number of acres specified on an intended acreage report (not to exceed the number of acres of cropland in the farming operation). Eligible acres may be increased if land is added to the farming operation, i.e., purchase or lease of additional land or acreage released from CRP.

### PAYMENT LIMITATIONS

To be eligible, first the acreage that is prevented from planting must be insurable and available for planting; and proof must be provided that inputs to produce the crop are available and that the crop was previously planted or prevented from planting. Second, the prevented planting acreage must be at least the lesser of 20 acres or 20% of the insurable crop acreage in the unit. If different crops are planted within the same field, or prevented planting is claimed on a different crop in the same field, the producer must have records to support that similar plantings occurred in the four most recent crop years.

### BENEFITS

1. Confidence for very early (pre-plant) pre-harvest crop sales.
2. Improved risk and financial management.
3. Cash flow safety-net.
4. No additional premium is required for basic prevented planting coverage.

#### How It Works (corn illustration)

<b>MPCI protection for timely planted acreage</b>	150 A. x 100 Bu./A. x 75% x \$2.00	= \$ 22,500 (average \$150/A.)
<b>Prevented planting guarantee (+10)</b>	\$22,500 x 70%	= \$ 15,750
<b>Prevented planting acreage</b>	20 acres (lesser of 20 A. or 20% of 150 A.)	
<b>Prevented planting loss payment</b>	20 A. x \$150 x 70%	= \$ 2,100

### CROP REVENUE COVERAGE (CRC)

This program provides comprehensive protection for corn, cotton, grain sorghum, soybeans and rice through a dollar guarantee based on the Board of Trade's or Exchange's early futures price (base price). Additional protection is provided if the near harvest futures price (harvest price) exceeds the base price. The perils covered are weather related, certain other unavoidable causes of loss and price fluctuations. CRC provides prevented planting and replanting protection. Prevented planting payments are determined by using the higher of the base or harvest price. The base price is used for replanting payments. This is an alternative coverage to the MPCI yield guarantee program and is federally subsidized.

### DOLLAR GUARANTEE

The guarantee is the historical yield (APH) multiplied by the selected level of coverage (50-75% in increments of 5%, 80 and 85% levels available in limited areas), the insured acreage and the higher of the base or harvest price. The maximum increase or decrease between the base and harvest price is \$1.50/bu. on corn and grain sorghum, \$3.00/bu. on soybeans, \$0.70/lb. on cotton and \$0.05/lb. on rice. These limits apply to the guarantee and value of production.

### VALUE OF PRODUCTION

The value of production to count is the actual yield plus any appraisals multiplied by the harvest price. The price at which the crop is sold **does not** affect the indemnity payment.

### LOSS PAYMENT

To calculate a payable loss, subtract the value of production from the dollar guarantee and multiply by the ownership share.

### UNITS

The basic insurance unit is all the acreage of the crop in the county in which the policyholder has 100% ownership or shares with the same person. Most basic insurance units can be further divided into optional units. Optional units may be divided by sections or section equivalents (in areas without sections or section equivalents, separate farm serial numbers (FSN) may be used), and by irrigated or dryland practices. In AR, LA and MS, units are only available by FSN. To qualify, a producer must have individual records for each unit and the planting pattern between the units must have a discernible break. Growers can also choose a county crop enterprise unit at a reduced premium rate.

### BENEFITS

1. Fosters greater grower confidence to do pre-harvest crop sale to improve profits.
2. Protects growers who need a specific amount of production to feed livestock.
3. Loss payments more closely track economic results.
4. May be viewed more favorably as loan collateral.
5. USDA shares in premium costs.

How It Works (corn illustration)		When the "Base Price" is higher than the "Harvest Price"	When the "Base Price" is lower than the "Harvest Price"
Dollar guarantee	120 Bu./A. x 75% x 100A.	@\$2.50/Bu. = \$22,500	@\$2.75/Bu. = \$24,750
Value of production	25 Bu./A x 100A.	@\$2.00/Bu. = \$ 5,000	@\$2.75/Bu. = \$ 6,875
Loss payment	Assume 100% ownership	= \$17,500	= \$17,875

**REVENUE ASSURANCE COVERAGE (RA)**

This program provides comprehensive protection by establishing a dollar guarantee based on the Board of Trade’s early futures price (projected harvest price). Coverage levels are available from 65-75% (80-85% levels available in limited areas) of the Actual Production History (APH) times the projected price. The perils covered are weather related, low price and certain other unavoidable causes of loss. RA includes prevented planting and replanting protection. This is an alternative coverage to the MPCI yield guarantee program and is federally subsidized.

**DOLLAR GUARANTEE**

The dollar guarantee for the insurance unit is the historical yield (APH), times level of coverage, times the insured acreage, times the ownership share, times the projected price. A “Fall Harvest Price Option” is available, which provides increased protection if the near harvest price (fall harvest price) is higher than the projected harvest price (similar to CRC).

**VALUE OF PRODUCTION**

To determine the value of production, multiply the harvested production, plus any appraisals, by the ownership share and the near harvest price. The price at which the crop is sold **does not** affect the indemnity.

**LOSS PAYMENT**

To calculate whether a loss is payable, subtract the value of production from the dollar guarantee.

**UNITS**

The basic insurance unit is all acreage of the crop in the county in which the policyholder has 100% ownership or shares with the same person. Most basic insurance units can be further divided into optional units, if the acreage is in separate sections and there are discernible breaks in the planting pattern. Growers can also choose a county crop enterprise unit or a whole farm unit, which may qualify the grower for a reduced premium rate.

**BENEFITS OF RA**

1. Fosters greater grower confidence to do pre-harvest crop sales to improve profits.
2. Protects growers who need a specific amount of production to feed livestock.
3. Loss payments more closely track economic results.
4. May be viewed more favorably as loan collateral.

<b>How It Works (corn, harvest price option illustration)</b>	<b>When the “Base Price” is higher than the “Harvest Price”</b>	<b>When the “Base Price” is lower than the “Harvest Price”</b>
<b>Dollar guarantee</b>	120 Bu./A. x 75% x 100 A.	@\$2.50/Bu. = \$22,500
<b>Value of production</b>	25 Bu./A x 100A.	@\$2.00/Bu. = \$ 5,000
<b>Loss payment</b>	Assume 100% ownership	= \$17,500
		@\$2.75/Bu. = \$24,750
		@\$2.75/Bu. = \$ 6,875
		= \$17,875

### INCOME PROTECTION COVERAGE (IP)

This program provides comprehensive protection for crops by establishing a dollar guarantee based on 100% of the Board of Trade's or Exchange's early futures price (projected price). Coverage levels are available from 50-75% of the Actual Production History (APH) and up to 100% of the price. Catastrophic (CAT) coverage is also available at 27.5% of the APH and 100% of the price. The perils covered are weather related, low price and certain other unavoidable causes of loss. Income Protection Coverage provides prevented planting and replanting protection for corn, cotton, grain sorghum and soybeans. This is an alternative coverage to the MPC yield guarantee program and is federally subsidized.

### DOLLAR GUARANTEE

The dollar guarantee for the insurance unit is the historical yield (APH) times the projected price, times the insured acreage, times the ownership share. Growers have the flexibility to vary the dollar protection from 50/100 to 75/100 (or CAT).

### VALUE OF PRODUCTION

Multiply the harvested production, plus any appraisals, by the near harvest futures price (harvest price) by the ownership share to determine the value of production. The price at which the crop is sold **does not** affect the amount of indemnity.

### LOSS PAYMENT

To calculate whether a loss is payable, subtract the value of production from the dollar guarantee.

### UNITS

Unit divisions are limited to an enterprise basis. Enterprise units consist of all insurable acreage of the insured crop in the county, regardless of interest or persons sharing.

### BENEFITS

1. Loss payments more closely track economic results of the crop.
2. May be viewed more favorably as loan collateral.
3. USDA shares in the premium costs.

How It Works (corn illustration)		"Projected Price" is Higher than the "Harvest Price"	"Harvest Price" is Higher than the "Projected Price"
Dollar guarantee	100 Bu./A. x 75% x 100A.	@ \$2.75/Bu. = \$20,625	= \$20,625
Value of production	25 Bu./A. x 100A.	@ \$2.00/Bu. = <u>\$ 5,000</u>	\$3.15/Bu. = <u>\$ 7,875</u>
Loss payment	Assume 100% ownership share	= \$15,625	= \$12,750

## GROUP RISK PLAN (GRP)

Group Risk Plan (GRP) provides a dollar amount of protection. A loss payment triggers when the county average yield in a given year falls below the trend adjusted average yield by a greater percentage than the policyholder's selected deductible. Group Risk Protection does not provide prevented planting, late planting or replant payments.

### LEVELS OF COVERAGE

The grower selects the dollar amount of protection per acre and the percentage of the county yield (70 to 90% for most crops) at which they want to insure. GRP CAT coverage is available at 65% of the expected county yield and 55% of the maximum amount of protection per acre.

## LOSS PAYMENT (INDEMNITY)

A loss is payable when the county average yield for the crop in the current year is less than the percentage of coverage selected by the grower at the time of application. Losses are based on the performance of the county. A farmer may suffer a complete loss but the county performance may not trigger a loss payment.

### BENEFITS

1. A simplified program with fewer reporting requirements.
2. Provides payment based on performance of a crop in a county as a whole.

### How It Works (corn illustration)

#### Assumptions:

Amount of coverage selected	\$300/A.
Percent of county yield selected	90%
Expected county yield	120 Bu./A.
Trigger yield	108 Bu./A.
Payment yield	90 Bu./A.

#### Loss payment:

Payment calculation factor	16.7%
(108 Bu. – 90 Bu. ÷ 108 Bu.)	
16.7% loss x \$300 x 100 A. =	\$5,000

### GROUP RISK INCOME PROTECTION (GRIP)

The Group Risk Income Protection (GRIP) insurance program is an area-based revenue insurance program that provides insurance protection against widespread loss of revenue in a county. The insured is paid in the event the county revenue falls below the insured's trigger revenue. Coverage levels are available from 70 to 90% in increments of 5% of the county trigger revenue. Protection per acre is available from 60 to 100% of the county maximum protection per acre listed in the county actuarial. Coverage is expressed as a county revenue trigger (expected county yield times expected price times coverage level). GRIP is similar to GRP, except revenue rather than yield is the basis of coverage.

#### TRIGGER REVENUE (GUARANTEE)

The trigger revenue (guarantee) is the expected county yield (same as the GRP expected yield), times the expected price (the average for the last 5 trading days in February for the nearby Chicago Board of Trade (CBOT) December corn and November soybean futures contracts), times the level of coverage, times the insured acreage.

### COUNTY REVENUE (REVENUE TO COUNT)

The county revenue (revenue to count) is the harvest price (November average daily settlement price for the December CBOT corn futures contract and October average daily settlement price for the November CBOT soybean futures contract), times the final county yield for the crop year, times the insured acreage.

#### LOSS PAYMENT

The loss payment is calculated by multiplying the payment calculation factor (the county revenue minus the insured's trigger revenue, divided by the insured's trigger revenue) times the insured's protection per acre (60 to 100% of the maximum county protection per acre), times the insured's ownership share. Losses are based on the performance of the county. A farmer may suffer a complete loss but the county performance may not trigger a loss payment.

#### UNITS

The coverage unit is all acreage of the crop in the county.

#### BENEFITS

1. A simplified program with fewer reporting requirements.
2. Payment is based on performance of a crop in a county as a whole, which lowers the cost for farmers.

#### How It Works (soybean illustration)

<b>Trigger revenue</b>	40 Bu./A. x \$6.10 x 90% x 100 A	= \$21,960
<b>County revenue</b>	25 Bu./A. x \$7.93 x 100 A.	= <u>\$19,825</u>
<b>Revenue loss</b>		\$ 2,135
<b>Loss payment</b>	(\$2,135 / \$21,960) x (\$380 X 100%) x 100 A. x 100% share	= \$ 3,694

## CROP HAIL COVERAGE

Crop Hail coverage provides protection against physical damage from hail and/or fire. Other coverages provided include fire department service charges, transit coverage to the first place of storage, catastrophe loss award (most coverages) and replanting coverage (most crops). Options exist in some areas for other perils such as wind and theft.

Crop Hail can be used along with MPCl or other comprehensive coverages to offset the MPCl deductible and provide protection up to the actual cash value of the crop. Coverage is provided on an acre-by-acre basis, so that damage that occurs on only part of a farm may be eligible for payment when the rest of the unit remains unaffected.

If a grower has coverage and bumper crop yields or higher prices become apparent, coverage can be increased during the growing season to cover the value of the crop.

## DOLLAR GUARANTEE

A dollar amount of coverage per acre is selected by the grower. Options with different deductibles may be selected to permit a grower to partially self-insure for reduced premium costs.

## LOSS PAYMENT

To calculate a payable loss, multiply the amount of coverage per acre applying on the date of loss by the damaged acreage, and the percentage of loss, less any deductibles.

## BENEFITS

1. Fosters greater confidence to do pre-harvest crop sales.
2. Protects crops up to the actual cash value against specific perils.
3. Acre-by-acre coverage provides protection for isolated damage.
4. May be used as loan collateral.
5. Protects profit.

### How It Works (corn illustration)

#### Coverage details

\$250 of coverage per acre  
No-deductible policy  
20 acres of damaged corn  
Hail caused 40% damage  
100% Ownership

#### Loss payment

Dollar Guarantee (20 A. x \$250/A. = \$5,000  
Percentage of Loss = 40%  
Loss Payment(\$5,000 x 40%) = \$2,000

# Comparing a Crop Insurance Company and Agent

**You have read in great detail about the numerous crop insurance products available.**

In order to select products that work best for your operation, you need not work alone. Insurance companies and agents can be excellent sources of information. The key to success is to work with reputable, trustworthy insurance companies and crop insurance agents. Below are some questions and information you should consider when finding a company or agent.

- How long has the agency been in business? Does the agency specialize in a particular type of insurance? Do they represent a reputable company? Do other producers recommend them?
- How long has the agent been associated with the agency? Inquire about credentials, licensing and areas of expertise of the agent.
- Find out how well the agent knows the products and their experience in this area.
- Did you learn about this agent from someone you trust and respect?
- Who will handle your account? Is there a team or backup person to handle your account? Ask to meet the other people.
- What are the agency's hours of operation? Can it be reached after hours and how? Do they have after-hours voicemail and/or e-mail systems? How are claims handled after hours?
- Ask how the agent perceives their role in handling claims, how he or she tracks claims, and what role they take in helping to resolve claims disputes between the customer and insurance company.

Agents

# Compare and Select Marketing Tools

**Crop insurance is only one risk fundamental to protect your crop and income.** Increased risks in grain marketing have created a greater need for risk management and marketing tools. Below is a description of numerous marketing tools available to farmers. These tools will be important factors in your marketing plan.

## **STORAGE (WITH NO PROTECTION)**

Storage is a way of avoiding seasonally low prices. When prices are below the level anticipated in the marketing plan, storage may be justified, assuming the producer has adequate financial resources. Storage may be warranted when there is a realistic expectation of a market price increase. Historical data indicates that the market is often willing to pay storage costs. However, stored grain can go out of condition and is subject to theft. Farmers do need to consider the cost of storing grain.

### **Storage costs**

The cost components of storing grain versus selling at harvest are:

- Storage facility cost
- Interest on grain inventory
- Extra drying of corn
- Extra corn shrinkage
- Extra handling cost
- Quality deterioration

### **Storage facility cost**

If grain is stored in existing farm storage facilities, the ownership costs (depreciation, return on investment, insurance, etc.) of the farm storage facility are not included in the analysis of whether to store grain in a particular year. These costs are not included because the ownership costs of the farm storage facility are incurred whether grain is stored or sold from the field at harvest. Therefore, these costs do not affect the annual decision of whether or not to store grain.

If grain is stored commercially, the commercial storage charge is a cost of storage. The storage charge varies among elevators but usually it is a fixed charge for the first few months with an additional charge for each additional month thereafter.

A charge for the cost of aerating dried grain stored on the farm may be included. It is estimated that aeration costs for managing dry grain in storage (cooling grain into winter and subsequently warming grain in the spring to match outside temperature) will cost from .2 to .3 of a cent per bushel under good management. These charges are for keeping already dried grain in condition.

### **Interest on inventory**

Some costs of storing grain are hidden. An example is the interest cost of having money tied-up in stored grain inventory. If a producer has a loan, the loan can be repaid with the proceeds from the sale of grain. So interest expense is reduced. However, if the grain is stored, the loan is not repaid and interest expense continues. So, a cost of storing grain is the additional interest expense incurred.

Even if no money is borrowed, there is an interest cost of storing grain. If the grain is sold, the proceeds can be invested in the business or placed in savings to earn an interest return. If the grain is stored, the amount of interest foregone is a cost of storage.

### **Extra drying**

The cost of drying corn to a safe storage level is a cost of storing corn. Many producers prefer to dry farm-stored corn they intended to store into the summer to about 13 to 13.5 percent moisture. However, No. 2 corn sold at harvest can be 15 or 15.5 percent moisture, depending upon elevator policy. The extra drying fuel and power costs required to remove the additional moisture is a cost of corn storage.

### **Extra shrinkage**

Because grain is sold on a weight basis (No. 2 corn weighs 56 lbs.), the removal of additional moisture for farm-stored corn also reduces the number of bushels. This reduction in bushels is a cost of storage. To compute the extra shrinkage for farm-stored corn, use a shrink factor of 1.25 percent. Commercial elevators often use a shrink factor of 1.35 percent to 1.4 percent. The extra shrink cost is figured by multiplying the extra points of moisture removed times the shrink factor times the current corn price. For example, the cost of removing an additional two points of moisture for farm storage when corn price is \$2.30 is 6¢ ( $2 \times 1.25\% \times \$2.30 = 6\text{¢}$ ).

### **Extra handling**

The cost of moving grain in and out of farm storage is a cost of storage. Costs vary as to the type of handling equipment, bin size and bin shape. Generally, handling costs are greater for flat storage and smaller bins. The extra handling costs associated with most farm storage facilities range from 1.5¢ to 2.0¢ per bushel.

### Quality deterioration

A cost of farm storage is the possibility of additional grain shrinkage and quality deterioration. Generally, loss due to shrinkage from moving grain into and out of storage and shrinkage during storage is .5 to 1 percent. The cost of the shrinkage loss can be computed by multiplying the percentage by the corn price.

Quality deterioration is quite variable depending on the quality of grain placed in farm storage and how the stored grain is managed.

If the grain is stored commercially, these costs are covered in the elevator storage charge.

*Don Hofstrand, Iowa State University  
Extension Farm Management Specialist*

### CASH SALE

When prices are favorable and at levels anticipated in the marketing plan, a direct cash sale is warranted.

### DEFERRED PAYMENT CONTRACTS

Deferred payment contracts allow for the current pricing and delivery of the crop, but can delay the receipt of payment. These contracts often are used as an income management tool for tax planning purposes. A deferred payment contract makes the seller an unsecured creditor of the elevator. This has implications both for legal and for financial risk exposure.

### FIXED PRICE CONTRACT FOR DEFERRED DELIVERY

This contract allows producers to establish a price for later delivery. A fixed price contract, also known as a cash forward contract, may allow a producer to schedule deliveries at times of the year that better fit with labor, grain quality and logistics. Having an adequate amount of crop

insurance allows the producer to comfortably contract the insured portion of his or her crop. These contracts often work well when crops are large, when storage is tight or when the market price reaches the objective in the marketing plan.

### BASIS CONTRACT

Basis is the difference between the local cash price and a futures contract price. Basis is typically more stable and predictable than either the underlying futures contract or the local cash price. However, basis does change in response to local supply and demand factors. A basis contract allows a producer to fix the basis, but allows the final cash-selling price to be determined at a later date by subtracting the fixed basis from the futures price. This strategy works well when the basis is strong (cash prices are high relative to futures) and there is some potential for an increase in futures prices. MPCI or revenue insurance can give a producer the confidence to enter into basis contracts without the concern of not having a crop to deliver.

### Managing grain basis

Differences in grain prices throughout the world are the result of either a surplus or deficit in production at various regions. In general, grain prices are lower in the inland producing regions and higher in grain-deficit, densely populated and port regions.

Transfer costs, which include loading or handling and transportation charges, are the most important variables that determine grain price differentials. Price differentials between regions cannot exceed transfer costs for very long. Whenever this situation occurs, buyers will purchase commodities from the low-priced market (raising prices there) and ship them to the higher-priced market (lowering prices there).

The price farmers receive for grain at the country elevator is derived from a central market price less transportation and handling costs. Country elevator managers watch the prices in several markets to determine where demand is the greatest. Country elevator managers deduct transfer costs to the higher-priced market in determining the bids they can offer local producers.

### Basis variability

The factors that affect basis include expected supply and demand for grains at the elevator, supply and demand for transportation services, variations in grade between what is grown and the futures contract and the unavailability of substitutes at a particular location.

Knowledge of the historical basis for a certain area or local elevator is important in making basis contract decisions. For example, basis contract offers ranged from 10 cents under to 28 cents under the futures price in the Texas Panhandle for July delivery priced off the 1996 July Kansas City wheat contract. Were they good basis contract offers? In this case, the historical five-year average was 31 cents under with a range of 20 cents under to 50 cents under. Therefore, Panhandle producers had opportunities to lock in basis significantly better than the five-year average.

### Tracking basis

Tracking basis weekly at the local elevator or spot markets, such as nearby feedlots, is important to a producer in managing basis risk. Generally, area and/or regional estimates of basis are available from private sources and the Internet. Using information from a combination of sources is an excellent way to evaluate basis contract offers.

### **Managing basis risk**

Successful management of basis risk can add to a producer's bottom line. Both elevators and producers have avenues available for managing basis risk. The efficient use of forward contracting of transportation services and the exploration of alternative markets are all ways an elevator operator can minimize basis risk.

### **Three primary ways of managing basis risk include:**

- Forward Contracting
- Basis Contracts
- Synthetic Basis Contracts

Grain producers have three basic ways of managing basis risk: forward contracting, basis contracts and synthetic basis contracts. There are a number of variations of these three methods, such as minimum price contracts. Forward contracting is the simplest method because both price and basis risks are eliminated at the same time.

Basis contracts provide a method of eliminating basis risk without locking in a price. A basis contract holder is required to deliver a specified amount, generally in 5,000-bushel increments, during a given time frame. In return, the holder is guaranteed that the price received will be a fixed amount either above or below the underlying futures contract. Basis contracts are gaining popularity and are available from most elevators and processors.

In areas where basis contracts are not available, the formulation of a synthetic basis contract is an alternative. Creating a synthetic basis contract involves forward contracting the grain and taking a long position in the futures market at the same time. The forward contract locks in the price and basis

while the futures allows the price to vary. Regardless of which way the price has moved by harvest, the basis will remain unchanged.

If price and basis are considered acceptable, forward contracting is attractive because it fixes both price and basis. If price is acceptable and basis is unacceptable, the best alternative is to hedge and hope the basis improves. If the price is unacceptable but the basis offer is acceptable, it maybe advantageous to basis contract the grain and wait for a price rally. In the case of an unacceptable price and basis, the only alternative is to do nothing and hope the situation will improve over time.

*Stephen Amosson, Jim Mintert, William Tierney and Mark Waller, Professor and Extension Economist, The Texas A&M University System; Extension Agricultural Economists, Kansas State University Agricultural Experiment Station and Cooperative Extension Service; and Associate Professor and Extension Economist, The Texas A&M University System.*

### **DEFERRED OR DELAYED PRICE CONTRACT**

A deferred or delayed price contract transfers title of a crop to the buyer at delivery, but allows the seller to set the price later. It is commonly used when storage is tight. At these times, the local elevator wants to move more grain into the marketing channel, but the seller may not be satisfied with current prices. When producers have crop insurance, they have a guaranteed, minimum production level. They can, therefore, safely use deferred price contracts early in the growing season.

### **MINIMUM PRICE CONTRACT**

A minimum price contract establishes a floor price for the duration of the contract. The floor price is typically several cents below the cash price at the beginning of the contract. A producer could net less with a minimum price contract than with a fixed price contract if prices fall, but will benefit from a rise in market prices. This contract eliminates much downside price risk.

### **HEDGE-TO-ARRIVE (HTA) CONTRACT**

This contract has risk management properties similar to a short futures market position. It is the opposite of a basis contract. It permits the seller to set the futures price level by the delivery date, but the basis is determined later. The seller is responsible for delivering the contracted amount on the delivery date.

### **SHORT FUTURES HEDGE**

Selling futures contracts to protect the value of grain or livestock in inventory or the value of expected production is a short futures hedge. A short futures hedge reduces downside price risk. On the other hand, it also reduces the ability to capture upside price movements.

### **PUT OPTION PURCHASE**

This tool is similar to a minimum price contract. It sets a floor on the crop or livestock price throughout the life of the contract. If prices rise during the period, the seller can capture upside price gains.

### CONTRACTED PRODUCTION

Many variations of this type of contractual arrangement exist. Historically, production contracts have been used for specialty crops, poultry and livestock. Purchasers have been willing to offer such contracts to fulfill the need for highly specific agricultural products. Recently, contracted production has been offered on an increasingly broader range of crops and livestock. Contract production reduces flexibility and the opportunity to capture upside price potential. But, it assures a relatively reliable cash flow.

### MARKETING COOPERATIVES

Forming and participating in marketing cooperatives provide members the opportunity to benefit from volume sales or purchases. Benefits may be in the form of enhanced prices received or reduced costs. There has been an increased interest in marketing cooperatives for both crops and livestock.

### DIRECT SALES

For some producers, selling directly to final consumers is a way to enhance profitability and reduce risk. Smaller farms near population centers may especially benefit from direct sales. Examples include the sales of fruits and vegetables through roadside stands and “you-pick” operations. Also, some producers can increase profits and reduce risk with specialty livestock products, like “all natural” beef, which reach a specialized market niche.

### DERIVATIVE CONTRACTS

Derivative contracts provide hedging or investment products for equity related risks or investments. Derivatives involve the trading of rights or obligations based on an underlying product, without necessarily directly transferring that underlying product.

### MARKETING LOANS AND LOAN DEFICIENCY PAYMENTS

Weak markets for corn and soybeans cause cash prices throughout the Midwest to fall below local Commodity Credit Corporation (CCC) loan rates. This creates opportunities for farmers to enhance returns through marketing loans and/or loan deficiency payments (LDPs). Marketing loans are designed to let cash prices seek whatever level is needed to increase the quantity of grain demanded and avoid building large stocks. While gains from marketing loans and LDPs will only partially correct major income shortfalls for grain farmers, this source of added income can help to modestly reduce the negative cash-flow impact from the severely depressed grain market.

Marketing loans can be used when ownership of the grain will be retained during and after harvest. When prices drop below the local county loan rate, a farmer can repay the CCC loan at its posted county price (PCP), keep the difference between the loan rate and the PCP and avoid paying interest on the loan. This creates a minimum or floor price for the farmer’s grain equal to the county loan rate. If the PCP accurately reflects the local cash price (it is often lower), the sale price for the grain plus the PCP/loan rate differential equals the loan rate amount.

For farmers selling grain at harvest, loan deficiency payments (LDPs) are an alternative to marketing loans. Farmers can receive LDPs while selling grain directly out of the field without taking out a loan. LDPs pay farmers the difference between the county loan rate and the PCP on the day the

farmer either transfers title of the grain to a buyer or chooses to receive an LDP. LDPs can also be used if you plan to store grain. However, once the LDP is taken, you lose the price protection of the loan program.

### Marketing loans

Traditionally, producers with 9-month Commodity Credit Corporation (CCC) loans have had two options for closing out the loans. They could forfeit the grain to CCC at the end of the 9-month period or repay the loan principal (county loan rate) plus accrued interest anytime during the 9-month period.

The forfeit option is similar to selling the grain to CCC at a price equal to the loan rate (interest is forgiven). If the market price is above the loan rate plus accrued interest, the producer will receive a higher price by repaying the loan plus accrued interest and selling the grain.

Now producers have another option. They can elect to repay the loan at the Posted County Price (PCP) rather than the loan rate, and the accrued interest is forgiven. This is an economically viable option if the PCP is below the loan rate plus accrued interest.

### Loan deficiency payments (LDPs)

Loan Deficiency Payments (LDPs) are payments to producers who, although eligible to obtain a CCC non-recourse price support loan, agree to forgo the loan in return for LDPs.

The LDP is the LDP rate times the quantity that is eligible for loan. The LDP rate is the amount by which the county loan rate exceeds the PCP. For example, if the PCP is

less than the loan rate, the difference would be the LDP rate on that day. If the PCP is equal to or greater than the loan rate, LDPs do not apply. LDPs will be made in cash.

If the grain is sold at the time the LDP rate is established, the producer will receive a total price equal to the loan rate (assuming market price and PCP are equal). If the market price is above (below) the PCP, the producer will receive a net price higher (lower) than the loan rate. Also, if the producer does not sell the grain at the time of application but holds for later sale, he/she will receive a higher net price if market price increases (lower if market price decreases).

### **Types of LDPs**

LDPs can be used in the situations described below. For more information on these situations, contact your local Farm Service Agency Office.

#### *Certified LDP with later sale –*

The producer certifies the harvested production in farm storage.

#### *Measured LDP with grain used*

*as feed* – The LDP application is completed on production in farm storage.

*Warehouse stored LDP* – The producer deposits grain in a warehouse and obtains a warehouse receipt.

*Field direct LDP* – a producer planning to sell grain directly from the field to a warehouse, processor or buyer can use this procedure. This can be a cash or contract sale.

Prior to harvest a producer must properly apply for the LDP. The application is based on the estimated amount of grain that will be sold directly from the field. The LDP rate is based on the date(s) of delivery. Upon completion of the sale, load summary sheets are presented to FSA and used as production evidence.

### **Beneficial interest**

For a commodity to be eligible for a loan or a loan deficiency payment (LDP), the producer must have beneficial interest in the commodity in addition to other eligibility requirements. A producer retains beneficial interest in the commodity if all of the following remain with the producer:

*Control of the commodity* – A producer has control of the commodity if he/she retains the ability to make all decisions affecting the commodity.

*Risk of loss* – A producer has risk of loss if he/she is responsible for any loss or damage to the commodity and will receive any indemnity payments.

*Title to the commodity* – A producer has title if he/she has not sold or delivered the commodity.

Producers who sell grain under a contract may be asked to provide the contract for review to FSA to determine beneficial interest.

For LDPs, the producer must retain beneficial interest in the commodity from the time of harvest through the date the LDP is requested.

For CCC loans, the producer must retain beneficial interest in the commodity from the time of harvest through the date the loan is redeemed or CCC takes title to the commodity.

Once beneficial interest in the commodity is lost, the commodity remains ineligible for a CCC loan or an LDP, even if the producer regains control, risk of loss and title.

### **Marketing implications**

*When to use* – Marketing loans (repayment at PCP) only have value if the market price is below the loan rate plus accrued interest. LDPs only have value if the market price is below the loan rate.

*Floor price* – Traditionally, producers forfeited grain under loan to CCC when market prices were below the loan rate. The forfeited grain was held off the market by CCC causing market prices to be maintained at or near the loan rate. However, marketing loans and LDPs allow producers to profitably redeem loans at prices below the loan rate and sell the grain on the open market. So, the loan rate may no longer act as a floor under market prices.

*Market highs and lows* – In addition to attempting to anticipate market highs for selling grain, producers may attempt to anticipate market lows for redeeming marketing loans or initiating LDPs. This, however, negates the minimum price protection offered by the program.

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Extension Farm Management Specialist*

# Conclusion, Resources and Acknowledgements

**As you know, many factors will affect the development of a sound revenue management and marketing plan.** We hope the information in the handbook will help you in your decision-making process to create a revenue management and marketing plan. While this handbook only covers the broad views of factors to consider, we hope the following list of resources will help you to further manage revenue and price risk in your farming operation.

## ADDITIONAL RESOURCES

The following are additional resources to help manage revenue risk and marketing in your farming operation.

### **AgInsight**

[www.aginsight.com](http://www.aginsight.com)

### **Business Planning Software**

[www.paloaltossoftware.com](http://www.paloaltossoftware.com)

### **Chicago Board of Trade**

[www.cbot.com](http://www.cbot.com)

### **Farm.Doc**

[www.farmdoc.uiuc.edu](http://www.farmdoc.uiuc.edu)

### **Iowa Soybean Association**

[www.iasoybeans.com](http://www.iasoybeans.com)

### **Iowa State University Ag Decision Maker**

[www.extension.iastate.edu/agdm](http://www.extension.iastate.edu/agdm)

### **Kansas State University Research and Extension Risk Management Education**

[www.agecon.ksu.edu/risk](http://www.agecon.ksu.edu/risk)

### **National Ag Risk Education Library**

[www.agrisk.umn.edu](http://www.agrisk.umn.edu)

### **Risk Management Agency**

[www.rma.usda.gov](http://www.rma.usda.gov)


### **Texas Risk Management Education Program**

[www.trmep.tamu.edu](http://www.trmep.tamu.edu)

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RESOURCES

A photograph of a cornfield. The corn plants are in the foreground and middle ground, their silks and tassels clearly visible. The background is a bright, hazy sky, suggesting a sunrise or sunset. The overall tone is warm and natural.

*This publication provides educational information to help producers understand risk-management features of grain contracts. It is neither a legal document nor an endorsement of any type of contract. Contract details vary. Some contracts may have provisions not included here. It is important for producers to understand a contract before signing it. Farmers should seek professional assistance if there are details they do not understand. Before entering into the contract, each individual should evaluate his or her risk exposure with extreme market movements.*

