Overview of Price Risk Module 1: Developing A Risk Management Plan

This presentation provides an overview to the topic of developing a risk management plan. The focus is on how risk management should be integrated into the overall planning process. While some specific issues or tools are mentioned or used as examples, this presentation is designed to introduce the topic of managing production, financial, and price risk.

Risk management is part of the planning process and should be incorporated into the traditional components of a farm plan. It is not a stand-alone plan. The planning process involves developing expectations or estimates. Since no one has a crystal ball that allows a clear view into the future, producers should not be dismayed if their expectations don't always turn out to be 100 percent accurate. When evaluating the plan and the planning process, compare actual prices, yields, etc. to expectations. Producers need to determine why expectations did not match the actual outcome. Given the available information, were the expectations realistic, too optimistic, or even too pessimistic? Since risk is the chance that an outcome will not meet expectations, risk increases when plans are made based on unrealistic expectations.

Risk management extends to all management decisions. Every management decision contains risk management implications, both what a producer does and doesn't do. Management decisions should be based on the best available information. Collecting and analyzing data is a continuous process.

To deal with risk effectively requires an understanding of your current financial situation, sources of risk, and the tools to help manage the different types of risk (See Chapters 2, 6 and 7). While all producers face the same basic types of risk, the importance of a particular type of risk and the effectiveness of a given risk management tool will vary by producer.

Developing probabilities can be an important part of the risk management planning process. The insight and understanding gained in the process of developing probabilities can be as useful as the probabilities themselves. Focus on crucial issues and ones where you either have or can obtain data. Every event cannot be quantified, however, nor should they be. Historical records are an important part of this process. While historical price data at selected terminal markets may be readily available, what about your local cash market? If a producer doesn't have them, can they be obtained from someone else? Do producers maintain field records? Do they do anything but collect the data? Are the data used in developing projected yields?

The probability examples show a ten-year price history for soft white wheat at Portland, marketing years 1986 through 1995. An alternative to including all years in a ten or twenty year time series would be to separate years according to some crucial component such as stocks to use or production. Then compare price behavior in "high" and "low" stocks years, or compare years with "high" production to years of "low" production. Arranging the data in a cumulative probability distribution can help answer questions such as what is the chance the price will be at or above $3.75? (roughly 60 percent.) Or what is the chance that the price will be below $3.75? (roughly 40 percent.) What is the chance that the price of soft white wheat at Portland will fall between $3.35 (18%) and $4.25 (76%)? (roughly 58 percent: 76–18.) Historical data can be useful, but should never be accepted uncritically. If the factors that influence market fundamentals change, then historical data may not be as relevant. Recognize any bias that may exist in the data set (Note Chapter 5 and see CD ROM, PNW Historical Grain Price Data).

Risk assessment means knowing your capacity to bear risk. Financial statements can be very useful in this regard. They can also show how much risk you can afford as well as how much risk protection you can afford. Just as important is to know what level of risk you and your family will tolerate. Not everyone is a gambler.

Different products or strategies are discussed for dealing with production risk, price risk, revenue risk and financial risk. These are not comprehensive and they are not equally applicable to all producers or to all areas. The new revenue products, income protection and crop revenue coverage, are in a process of rapid change and development.

There is the old cliché that "people don't plan to fail, they fail to plan." Planning is a challenging process and reminds us of some things we would like to forget. It can also show our limitations. Because the farm business often involves family members, differences of opinions and conflicts are common. Planning often forces these disagreements into the open and can lead to bitter disputes. Focus on less controversial issues and those you agree on before tackling the contentious ones.

There are no silver bullets in risk management. A viable plan or strategy for one farm will not necessarily work elsewhere. The purpose of risk management is try and find the right balance between taking risks that will increase profits, while avoiding risks that can lead to unacceptable losses.

Developing a Risk Management Plan

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SLIDE 1.1 ***Develop a farm plan***

- A farm plan is the umbrella under which other plans reside.
- Risk management is a component of each plan, not a separate plan.

SLIDE 1.2 ***A farm plan includes***

- Goals & objectives
- Land use plan
- Crop plan
- Livestock plan
- Resource inventory
- Financial statement
- Budgets
- Income statement
- Supporting data

SLIDE 1.3 ***Planned vs. actual***

- Plans and decisions are based on expectations.
- Evaluation should compare actual outcome to expectations.

SLIDE 1.4 ***Risk***

- Risk is the possibility that an outcome or event will not meet planned expectations.

SLIDE 1.5 ***Risk Management***

- Risk management integrates production, marketing & financial decisions.
- Risk management is a planning process where you assemble and assess information.
- Every management decision carries risk management implications.

SLIDE 1.6 ***Risk Management Requir es***

- Understanding of *your* financial situation.
- Understanding of sources and potential sources of risk.
- Understanding of risk management tools.

NOTES

SLIDE 1.7 ***Risk management includes***

- Evaluation of alternative plans and risk management strategies.
- Implementation of the plan.
- Monitoring the plan.
- Developing probabilities to formalize risk assessment.

NOTES

SLIDE 1.8 ***Probability***

- Probability is the chance or frequency of an event.
- Probabilities quantify the chance of an event occurring.

SLIDE 1.9 ***Probability***

- What is the probability that soft white wheat at Portland will be under $4.00?
- What is the probability that your wheat yield will be below your 10-year average?

SLIDE 1.10

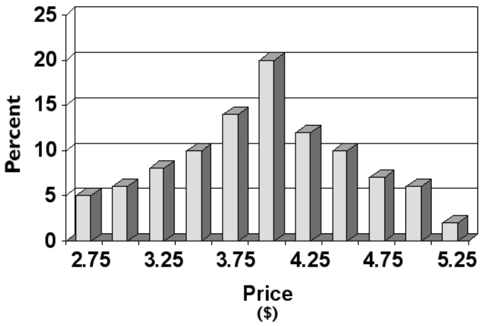

Fig. 1 Probablilty: Portland soft white wheat 1986-95 monthly price averages

SLIDE 1.11

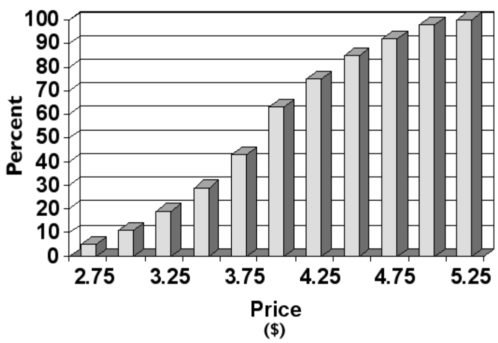

Fig. 2 Cumulative probability: Portland soft white wheat 1986-95 monthly price averages

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SLIDE 1.12 ***Risk assessment***

- Assessing your capacity to bear risk
- How much risk can you afford?
- How much risk protection can you afford?
- Your willingness to accept risk.

SLIDE 1.13 ***Managing pr oduction risk***

- Crop selection
- Diversification
- Cultural practices
- Maintenance and repairs
- Risk reducing technology
- Insurance

SLIDE 1.14 ***Managing price risk***

- Multiple sales
- Contracts
- Hedging
- Market outlook

NOTES

SLIDE 1.15 ***Managing revenue risk***

- Income protection: USDA-RMA.[a]
- Crop revenue coverage: private IP[b] and CRC[c] combine price and yield protection into a single program.

[a]USDA-RMA = United States Department of Agriculture, Risk Management Agency

[b]IP = Income Protection

[c]CRC = Crop Revenue Coverage

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SLIDE 1.16 ***Income protection***

- Protects against a decline in actual revenue compared to expected revenue for a given year.
- Price protection varies each year.

SLIDE 1.17 ***Crop revenue coverage***

- Revenue guarantee, similar to IP.
- Replacement coverage, allowing for increased coverage if price increases.

SLIDE 1.18 ***Managing financial risk***

- Debt structure
- Leverage
- Resource control
- Business organization
- Production efficiency
- Insurance
- Reserve funds
- Off-Farm income

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SLIDE 1.19 ***Managing all sources of risk***

- Education and knowledge
- Environmental awareness
- Evaluate past decisions

SLIDE 1.20 ***Why manager s don't plan***

- Involves detailed thought and analysis.
- Reminds managers of uncertain future.
- May force manager to seek assistance.
- Forces families to address conflicts.

SLIDE 1.21 ***Basic risk concepts***

- There is no one "best strategy."
- Balance the potential for a profit against the potential for a loss.
- The key to successful risk management is in taking the right risks.
- Risk management does not eliminate risk!

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