National FFA Risk Management Lesson Plans

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Risk Management Planning

Precepts

Vision

- C2. Conceptualize ideas
- C3. Demonstrate courage to take risks

Decision Making

- N1. Demonstrate the Decision-Making Processes
- N2. Demonstrate Problem-solving Skills

National Standards

NSS-EC.9-12.1 – Productive Resources
NSS-EC.9-12.2 – Effective Decision Making
NL-ENG.K12.6 – Applying Knowledge
NL-ENG.K-12.7 – Evaluating Data

Student Learning Objectives

As a result of this lesson, the student will …

1. Demonstrate the six types of risk
2. Identify the five ways of handling risk
3. Articulate the need for Risk Management Planning

Time

Instruction time for this lesson: 45 minutes.

Resources

United States Department of Agriculture Risk Management Agency. *Production Risks: Alive and Well; by Dr. Laurence Crane, NCIS:* Author. Retrieved October 16, 2008, from United States

Department of Agriculture Web Site:
http://www.agrisk.umn.edu/Library/Display.aspx?RecID=1128

Building a Comprehensive Risk Management Plan; by Louise Waterman, adapted from USDA/Risk Management Agency. Retrieved October 10, 2008 from the Vermont Agency on Agriculture, Food & Markets.
http://www.vermontagriculture.com/agdev/Risk%20Management/article1.htm

National FFA Organization's "Essential Learnings" materials, 2003

Tools, Equipment, and Supplies

Public Writing Surface
Agriculture Risk Crop Cards
Five different colored items in varying quantity (colored stones, different types of beans, etc.) enough for each student to have several of one or more items
Containers to hold the various colored items
Three to five pair of dice
TM.A – one copy
AS.1 – one copy per student

Key Terms

The following terms are presented in this lesson and appear in bold italics:

Production Risk	***Marketing Risk***	***Financial Risk***
Legal Risk	***Human Risk***	***General Risk***
Retain	***Shift***	***Reduce***
Self Insure	***Avoid***	

Interest Approach

Welcome! Today we are going to play a game. Let’s call it”Agricultural Risk”. Much like the game of Chance or Risk, there will be strategy involved in the choices you make during the game as well as things that are out of your control.

The teacher will need to facilitate this activity quickly and move on to the next stage. The teacher will group students into teams of three to four students. The teacher will allow student teams to select a crop from the Agricultural Crop Risk Cards. The Agricultural Crop Risk Cards will be placed around the room so that students will be able to quickly choose the crop they wish to plant. Above the stack the teacher will have written the type of crop on a sheet of flip chart paper.

In this game the one thing that you have control over is the type of crop that you will be planting for your farm. Let's create teams.

The teacher will ask the students to count of by three or four to create the teams. The teacher will ask the teams to move to specific areas of the room before the game can begin.

When I say “Move” I want our teams to move to their assigned locations. You will have one minute to complete this task. Questions? Okay, move!

Announce the 30-second mark and inform the students they have 30 more seconds to find their team and take a seat.

That was great, thank you. Now that you are in your teams, when I say, “Go,” you will have one minute to brainstorm with your team to decide what crop you wish to plant. Be thoughtful about your selection; take into consideration the type of climate we live in. In this game assume that this would be a real crop that you would actually consider planting. If asked, you need to be able to explain or defend why you chose your crop selection. Questions? Go!

And stop! I hope you have made a wise choice. Now, when I say “Plant” you will choose one member from your team to go and retrieve your Agricultural Crop Risk Card from its location in the room and take it back to your seat. Are there any questions? Great. Plant!

Announce the 30-second mark and inform the students they have 30 more seconds to find their crop that they want to plant and find their seat.

Well done! Now that you have your crop, comes the interesting part. In agriculture, producers or farmers spend time choosing the type of crops they want to plant and they factor in many reasons for choosing the crop. Much like you just did. However, in life, like the games of Chance or Risk, there are many things that a producer cannot control. Some things out of our control have a very positive effect on our farming industries; others do not.

The teacher will pass around one die to each team as well as five containers full of various colored objects. Five of the colored objects will represent a form of ***production risk****: adverse weather, pests, disease, human error, and misuse of new technologies.*

The containers I have just passed around represent those things in a farming industry that you cannot control. As a team you are going to take turns rolling the die that I have provided you. Whatever number appears on the die that is how many objects you have to take out of one container. You must continue to roll the die, taking turns, until you have taken something out of each container. Your choices of what container you pick from may affect how well your crop produces. When I say' "Roll the die," your team is going to have five minutes to roll the die five times choosing which container to draw from. What questions are there? Excellent. Roll the die!

As the students engage in this game of "Agricultural Risk" the teacher should move around the room monitoring conversations. If the game takes longer allow for the time expansion.

Wow, that was interesting. There were many conversations regarding what the different colored objects may represent. All of the objects that you had to choose represented the five types of ***Production Risk*** - adverse weather, pests, disease, human error, and misuse of new technologies. These are all things that affect the expected yields and have a major impact on farmers. So let's see what the choices you made had on the crop you chose.

The teacher will identify the colored objects and the production risks they represent. The teacher will facilitate a discussion among the students on the damage their crops sustained during this game.
Discussion Questions:

Why did you choose that particular crop to raise?

Do you think it was a wise choice – Why or Why not?

What ***production risk*** impacted your crop the most?

What could you have done to protect yourself?

Summary of Content and Teaching Strategies

Objective 1: Demonstrate the six types of risk.

Great discussion! The game that we just played was a means to demonstrate to you the effects of ***production risk***. Production risk is just one of six (6) different types of risk that producers/ farmers face every day.

*Place TM. A on the overhead projector and review the information with the students. Have the students capture the information in their notes. The types of risk for review are **Production Risk, Marketing Risk, Financial Risk, Legal Risk, Human Risk** and **General Risk.***

Now that we have reviewed the six different types of risks a producers faces, let's see if you can demonstrate what you have learned so far!

Hieroglyphics e-Moment

Students will use the Hieroglyphics e-Moment to review the six types of agricultural management risks. Each student will need AS.1 to complete the activity. The Hieroglyphic e-Moment challenges students to create an "icon" or symbol that represents a concept – or a "picture that is worth a thousand words!"

In just a moment, each of you will receive an activity sheet with bricks on it. In each of the bricks first write the one management risk that we discussed. Be sure to leave plenty of room because I you are also going to drawing an icon that represents that risk. You will have three minutes to draw your icons. What questions are there? Draw!

When students have finished, give them about 30 seconds to share their icons with a neighbor.

Turn to your neighbor and show them the icons you drew to help you remember the six management risks. Nice work! If you look at our bricks, if you remove just one the structure is not as sound. In the same way, if you do not carefully plan for all of the risks that producers face your agri-business will not be as sound or safe.

Objective 2: Identify the five ways of handling risk;

Now that we can identify the various types of risk that producers face, we can now start looking at ways of handling or managing those risks. ***Risk management*** means using strategies that can greatly decrease the chances of being forced out of business. It also means reducing the odds that your profits and/or your financial position will drop below an unacceptable level. You have to remember that utilizing risk management strategies does not mean that you eliminate risk altogether. If you reduced all the risk involved in a profitable activity then everyone would do that activity! And, if everyone did the same thing there would be an imbalance of supply and demand. Too many producers producing the same thing would create an influx in supply.

In order to create a sound risk management plan, you need to identify your potential risks, like we did earlier with our bricks, and understand ways to handle those risks. Once we have identified which risks need our attention we can manage the risk in one of five ways.

Place TM.B on the overhead projector and review the information with the students. Have the students capture the information in their notes.

Let's capture some information about handling risks in our notes:

To ***Retain*** means to hold onto something with no protection from the negative aspects.

To ***Shift*** means that someone else takes on some of the chance of a negative impact in exchange for a payment.

To ***Reduce*** means to put protections in place to secure your investment

To ***Self-insure*** means to have some emergency reserves in place.

To ***Avoid*** means to completely steer clear of something because the risk is too high.

What questions do you have?

Allow the students to ask questions and respond appropriately. Be sure to allow other students to provide input.

Great questions!

Use the Motion e-Moment to help students remember the information by using their hands. The Motion e-Moment can take place while students remain in their seats. It incorporates motions *associated with key words and phrases. Students either mimic motions demonstrated by you or create their own. The power of the Motion e-Moment happens when students make the associations.*

- *Make the motion of trying to hold a large basket represent* ***retain****.*
- *Make the motion of pushing something aside to represent* ***shift****.*
- *Make the motion of pushing something down to represent* ***reduce****.*
- *Make the motion of hugging yourself to represent* ***self insure****.*
- *Make the motion of pushing something away to represent* ***avoid****.*

Go through the motions with the students. Have students go through the motions and review once on their own.

Review/Summary

Objective 3: Articulate the need for Risk Management Planning

You all were great today! Thank you so much for being so involved in this lesson on risk management. Remember that in order for producers to have strong, viable business ventures they must first identify the risks associated with their production and then map out ways in which to handle or manage the risk. In future lessons we will be learning about a SWOT Analysis which is a valuable tool that producers may use to help identify their Strengths, Weaknesses, Opportunities and Threats.

Application

Extended classroom activity*:* *Use the Internet to research different methods of identifying and managing risk and evaluate the best strategies for different scenarios.*

FFA activity: *When creating a chapter project, apply the same principles of risk analysis to the project to assess the validity of completing the project.*

SAE activity: *Individual students could participate in a Communications SAE or Service-based SAE in order to share with local farmers/producers the methods of risk identification*

Evaluation

Utilize the assessment to assess the student’s knowledge.

Answers to Test:

1. A
2. G
3. C
4. F
5. B
6. I
7. D
8. J
9. E
10. H
11. K

TM.A

Production risk

Example: Weather, pests, disease, the availability of critical inputs and the interaction of technology with other farm and management characteristics.

Marketing risk

Example: Identify and quantify costs, set price goals, determine potential price outlook, examine production and price risk, and develop a strategy for marketing your crop.

Financial risk

Example: The cost of debt capital; cash flow needs; and the ability to maintain and grow equity.

Legal risk

Example: Establishing or reorganizing a business, renting or leasing issues, tax issues, bankruptcy, environmental issues, sale of a farm, transfer of management, estate planning

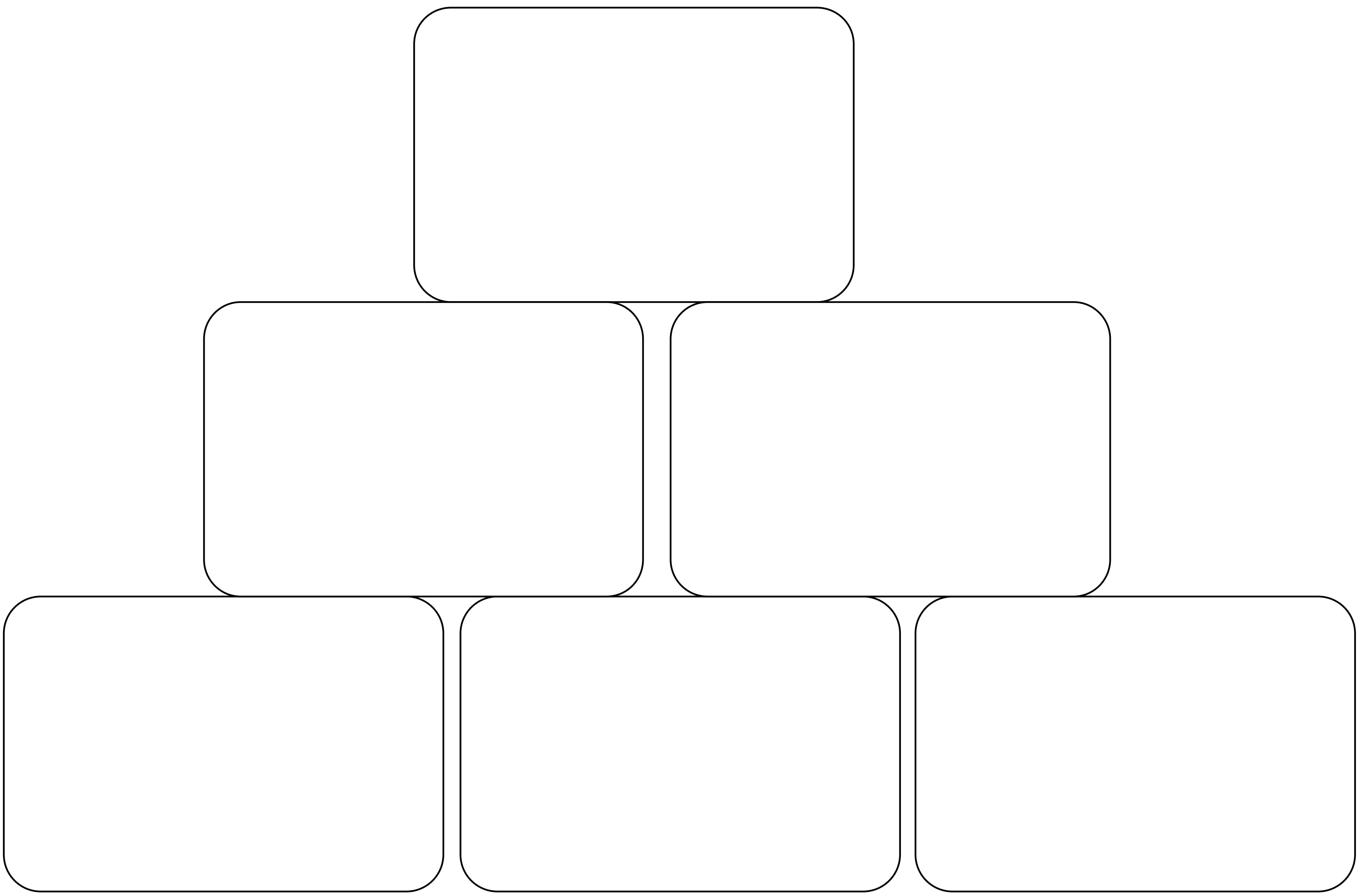
Human risk

Example: Children and safety on the farm, hazards on farm equipment, respiratory hazards from harvesting, pesticides and safety,

General risk

Example: Record keeping, business planning, diversifying business

AS.1



TM.B

Risks can be handled in one of five ways, or in certain combinations of the five:

1. **Retain -** With no protection from downside risk, as in holding an un-priced commodity.
2. **Shift** - A contractual arrangement where someone else takes on some of the chance of a negative occurrence in exchange for a premium. Buying crop insurance is an example of shifting risk. The more risk you shift, the higher the cost.
3. **Reduce** - Keeping fences in good repair to keep livestock off the highway and a marketing plan that locks in some level of guaranteed return are examples of reducing risk.
4. **Self-insure** - Emergency reserves funded from previous years' profits.
5. **Avoid -** Not selecting a particular enterprise; not pushing either end of the planting windows, not increasing your debt-to-asset ratio beyond your comfort level. Avoiding risk may be appropriate when the risky event can be severe but cannot be effectively managed in other ways. The threat of injury or death to children operation farm machinery may be enough to avoid letting children near machinery until they are old enough to safely operate the equipment.

AS.2 – Agricultural Crop Risk Cards

Cotton	Corn
Soy Beans	Rye
Sorghum	Wheat
Alfalfa	Barley
Timothy	Buckwheat
Clover	Tobacco

Assessment

Name: ___________________________________

Directions: Match the term with the correct example.

1. Retain
2. Production Risk
3. Shift
4. Legal Risk
5. Self Insure
6. Marketing Risk
7. Avoid
8. Human Risk
9. Reduce
10. General Risk
11. Financial Risk

A. Holding an un-priced commodity

B. Emergency reserves funded from previous years' profits

C. A contractual arrangement where someone else takes on some of the chance of a negative occurrence in exchange for a premium

D. Not selecting a particular enterprise or not increasing your debt-to-asset ratio beyond your comfort level

E. Keeping fences in good repair to keep livestock off the highway and a marketing plan that locks in some level of guaranteed return

F. Establishing or reorganizing a business, renting or leasing issues, tax issues, etc.

G. Weather, pests, disease, the availability of critical inputs and the interaction of technology with other farm and management characteristics

H. Record keeping, business planning, diversifying business

I. Identify and quantify costs, set price goals, determine potential price outlook, examine production and price risk

J. Children and safety on the farm

K. The cost of debt capital; cash flow needs