Lesson B7–1

Understanding Supply and Demand Concepts

Unit B. Animal Science and the Industry

Problem Area 7. Understanding Animal Production

Lesson 1. Understanding Supply and Demand Concepts

New Mexico Content Standard:

Pathway Strand: Agribusiness Systems

Standard: **VI:** Use sales and marketing principles to accomplish an AFNR business objective.

Benchmark: **VI-A.** Conduct market research.

Performance Standard: **2.** Apply economic principles to marketing (e.g., supply and demand).

Student Learning Objectives. Instruction in this lesson should result in students achieving the following objectives:

1. Describe the concept of supply.
2. Describe the concept of demand.
3. Explain what happens when there is a change in supply or demand.

List of Resources. The following resources may be useful in teaching this lesson:

Recommended Resources. One of the following resources should be selected to accompany the lesson:

Hamilton, William H., Donald F. Connelly, and D. Howard Doster. *Agribusiness: An Entrepreneurial Approach.* Albany, New York: Delmar Publisher Inc. 1992

Price, David E., et al. *Modern Agriculture Science, Finance, Production and Economics.* University Park, New Mexico: SWI Publishing. 1989

Other Resources. The following resources will be useful to students and teachers:

Newman, Michael E. and Walter J. Wills. *Agribusiness Management and Entrepreneurship.* 3rd Edition. Danville, Illinois: Interstate Publishers, Inc. 1994

List of Equipment, Tools, Supplies, and Facilities

Writing surface
Overhead projector
Transparencies from attached masters
Copies of student lab sheet
Bags of candy

Terms. The following terms are presented in this lesson (shown in bold italics):

Commodity
Demand
Elastic
Elasticity of demand
Elasticity of supply
Fixed costs
Law of demand
Law of supply
Supply
Total costs
Variable costs

Interest Approach. Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situations. A possible approach is included here.

Hold up a bag of candy. Ask the students what they would do to get this candy. Would they pay for it? Stay after school and do extra work for it? How much is it worth to them? Briefly discuss the concept of demand. Now, open up the bag and give each student a piece of candy. Again, hold up a whole bag of

candy. Once again, ask the students what they would do for the bag of candy. Are as many people still willing to give or do something extra for the bag of candy? Why or why not? Briefly discuss the concept of supply with the students. Continue with the lesson.

Summary of Content and Teaching Strategies

Objective 1: Describe the concept of supply.

Anticipated Problem: What is supply?

I. ***Supply*** is the amount of goods or services offered for sale at a given time. Supply also refers to the range of prices at which a product can be sold. The ***law of supply*** states that a producer will supply fewer goods or services as prices decrease and will supply more goods or services as prices increase.

   A. ***Elasticity of supply*** is the variability of supply based on the cost of production. Agricultural commodities such as livestock and crops have less elasticity than other commodities. A ***commodity*** is any good or product that is sold. The lack of elasticity is due to the high costs involved in producing agricultural commodities. An example of this would be the costs involved in raising dairy cattle. Costs may include land for grazing, feed, medicines and veterinary costs, milking machinery, milk storage tanks, and other general costs associated with livestock care. A producer cannot easily make such a large investment and not continually produce a product. The costs associated with supplying goods and services can be broken down into three types: fixed, variable, and total.

   B. ***Fixed costs*** are operating costs that are not directly related to production. These costs are pre-determined and usually cannot be changed. Examples of fixed costs include taxes and insurance.

   C. ***Variable costs*** are costs that are directly related to production. These costs will change over time. Examples of variable costs include labor and raw materials. ***Total costs*** are the sum of the fixed and variable costs.

Use TM B7–1A to review the terms through Part A of this objective. TM B7–1B highlights the terms in Part B of this objective. Use LS: B7–1A Determining Fixed and Variable Costs to reinforce the concept of fixed and variable costs.

Objective 2: Describe the concept of demand.

Anticipated Problem: What is demand?

II. ***Demand*** is the desire for a commodity or willingness to buy a commodity. The demand for commodities is based on the assumption that prices may differ but everything else will remain constant. However, this is not always true. People's preferences may change, substitutes may become available, or the number of people in the marketplace may fluctuate.

A. The ***law of demand*** states that people will buy more of a product at lower prices and less at higher prices. This can be demonstrated in the demand for corn dogs versus pork chops at the county fair. While the taste of the pork chop may be greater than that of the corn dog, so is the price. If the price were the same, the demand would hypothetically be the same. If the pork chop costs $2.00 more, the demand would be less.

B. ***Elasticity of demand*** is the variability of the amount of goods or services that will be purchased at various prices. An example of this is the price of beef versus pork. At the average grocery store, beef products are more costly than pork products. While some people may prefer the flavor or texture of beef, pork will also satisfy a person's dietary needs. This makes beef elastic. To be ***elastic*** means that a product is sensitive to changes in price.

Ask students to come up with more examples of the law of demand. Hamburgers vs. hot dogs, one brand of truck vs. another, and green tractors vs. red tractors are just a few examples of discussion topics. Use TM B7–1C to highlight the terms covered in this objective.

Objective 3: Explain what happens when there is a change in supply or demand.

Anticipated Problem: What happens when there is a change in supply or demand?

III. Changes in supply or demand refer to overall changes in the products and services provided and the demand for them.

A. A change in supply may be a decrease in milk supply due to widespread mastitis infections. A change in change in supply may also be caused by an increase in wheat production due to extremely fair weather conditions. Either way, the overall supply has changed. However, a change in supply does not lead to a change in demand. Therefore, excess supply will result in lower prices.

B. A change in demand is anything that causes consumers to buy more or less of a product despite its price. These changes can result from availability and prices of comparable commodities and changes in public perception. Public perception is a direct result of advertising.

Have students consider their own buying habits. What makes them want something more than something else? Have them relate this to agricultural products.

Review/Summary. Summarize the lesson by asking students to explain the content of each objective. Reinforce the key terms and concepts.

Application. Students can apply the information learned in this lesson to LS: B7–1A Determining Fixed and Variable Costs.

Evaluation. Student comprehension of these objectives can be measured with the attached test.

Answers to Sample Test:

Part One: Matching

1 = c, 2 = b, 3 = d, 4 = a

Part Two: Completion

1. Variable costs
2. Fixed costs
3. Elasticity of demand

Part Three: Short Answer

1. See Objective 3
2. See Objective 3

Sample Test Name_____

Test

Lesson B7–1: Understanding Supply and Demand Concepts

Part One: Matching

Instructions. Match the term with the correct response. Write the letter of the term by the definition.

a. Supply
b. Law of supply
c. Demand
d. Law of demand

_____ 1. Desire for a commodity or willingness to buy.

_____ 2. A producer will supply fewer goods or services as price decreases and more when price increases.

_____ 3. People will buy more of a product at lower prices and less at higher prices.

_____ 4. The amount of goods or services offered for sale at a given time.

Part Two: Completion

Instructions. Provide the word or words to complete the following statements.

1. A _____ _____ are costs that are directly related to production.
2. A _____ _____ are operating costs that are not directly related to production.
3. A _____ _____ _____ is the variability of the amount of goods or services that will be purchased at various prices.

Part Two: Short Answer

Instructions. Provide information to answer the following questions.

1. Explain what happens when there is a change in supply.

2. Explain what happens when there is a change in demand.

THE CONCEPT OF SUPPLY

Supply:

- The amount of goods or services offered for sale at a given time

Law of supply:

- States that a producer will supply fewer goods or services as prices decrease and more when prices increase

Elasticity of supply:

- Variability of supply based on the cost of production

Commodity:

- Any good or product that is sold

TYPES OF COSTS

Fixed costs:

- Operating costs that are not directly related to production

Variable costs:

- Costs that are directly related to production

Total costs:

- The sum of the fixed and variable costs

THE CONCEPT OF DEMAND

Demand:

- The desire for a commodity or willingness to buy a commodity

Law of demand:

- States that people will buy more of a product at lower prices and less at higher prices

Elasticity of demand:

- The variability of the amount of goods or services that will be purchased at various prices

Elastic:

- A product is sensitive to changes in price

Name _____

Lab Sheet

Determining Fixed and Variable Costs

Instructions:

Label each cost below as fixed (f) or variable (v).

1. _____ raw materials
2. _____ feed
3. _____ real estate taxes
4. _____ utilities
5. _____ depreciation
6. _____ vaccinations
7. _____ fuel
8. _____ mortgage payments
9. _____ insurance
10. _____ labor

Lab Sheet Key

Determining Fixed and Variable Costs

1. v
2. v
3. f
4. v
5. f
6. v
7. v
8. f
9. f
10. v