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| Course | Agricultural Science I |
| Unit | Introduction to Agricultural Business |
| Lesson | Role of Agricultural Business |
| Estimated Time | 50 minutes |

Student Outcome

Describe the role of agricultural businesses in the economy.

Learning Objectives

1. Define and describe agricultural businesses.
2. Describe the types of business structures.
3. Determine the different sectors of agricultural business.
4. Explain the importance of agricultural businesses to the community, nation, and world.
5. Describe the roles technology plays in agricultural business.

Grade Level Expectations

Resources, Supplies & Equipment, and Supplemental Information

Resources

1. PowerPoint Slides
 - ☐ PPt 1 – Deli Sandwich
 - ☐ PPt 2 – Agricultural Business Sectors in Missouri
2. Activity Sheet
 - ☐ AS 1 – Agricultural Businesses
3. *Introduction to Agricultural Business* (Student Reference). University of Missouri-Columbia: Instructional Materials Laboratory, 2001.
4. *Introduction to Agricultural Business Curriculum Enhancement*. University of Missouri-Columbia: Instructional Materials Laboratory, 2003.

Supplies & Equipment

- ☐ Local telephone book
- ☐ Deli sandwich, if desired

Supplemental Information

1. Internet Sites
 - ☐ About ADM. Archer Daniels Midland Company. Accessed June 4, 2007, from <http://www.admworld.com/naen/about/>.
 - ☐ ESOPs in S Corporations. The National Center for Employee Ownership. Accessed June 4, 2007, from http://www.nceo.org/library/s_corp.html.
 - ☐ Global Positioning System (GPS). Mission and Spacecraft Library Program. Accessed June 4, 2007, from <http://leonardo.jpl.nasa.gov/msl/Programs/gps.html>.
 - ☐ Monsanto Company. Hoovers, Inc. Accessed June 4, 2007, from <http://www.hoovers.com/co/capsule/2/0,2163,100932,00.html>.
 - ☐ "Roundup Ready Soybeans." *Achievements in Plant Biotechnology* 1999. Biotech

Basics. Accessed June 4, 2007, from

http://www.biotechknowledge.com/biotech/bbasics.nsf/achieve_roundup_ready_soybeans.html?OpenPage.

- ❑ State Fact Sheets: Missouri. USDA Economic Research Service. Accessed June 4, 2007, from <http://www.ers.usda.gov/StateFacts/MO.htm>.
- ❑ USDA Crop Profiles. Accessed June 4, 2007, from <http://pestdata.ncsu.edu/cropprofiles/cplist.cfm?org=crop>.
- ❑ U.S. Department of Agriculture. Accessed June 4, 2007, from <http://www.usda.gov>.
- ❑ *U.S. Farm Economics Summary*. Accessed June 4, 2007, from <http://www.usda.gov/nass/pubs/stathigh/2000/economicpages23-51.pdf>.

2. Print


- ❑ Burton, L. D. *Agriscience & Technology*. 2nd ed. Albany, NY: Delmar Publishers, 1997.
 - ❑ *Exploring Agriculture in America* (Student Reference). University of Missouri-Columbia, Instructional Materials Laboratory, 2000.
 - ❑ Krebs, A. H. *Agriculture in Our Lives*. 5th ed. Danville, IL: The Interstate Printers & Publishers, Inc., 1984.
 - ❑ Ricketts, C. and O. Rawlins. *Introduction to Agribusiness*. Albany, NY: Delmar Thomson Learning, 2001.
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Interest Approach



Assign students to groups of four to five. Show the deli sandwich presentation (PPt 1) and ask each group of students to identify each part of the sandwich. After they have labeled each component, have a contest among the groups to determine where each of the ingredients came from and what went into the production of each component. The winning group can be given a sandwich or other food reward. Or, allow each student to make a sandwich once they can identify some aspect of the production process. As a review, advance PPt 1 and see how many of the steps the students were able to outline from producer to consumer.


Communicate the Learning Objectives



1. Define and describe agricultural businesses.
2. Describe the types of business structures.
3. Determine the different sectors of agricultural business.
4. Explain the importance of agricultural businesses to the community, nation, and world.
5. Describe the roles technology plays in agricultural business.

| Instructor Directions | Content Outline |
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| Objective 1 <i>Have students identify agricultural businesses listed in their local telephone book and record their findings in the appropriate column on AS 1.</i>  AS 1 – Agricultural Businesses | Define and describe agricultural businesses. An agricultural business is any enterprise that produces crops or livestock or is involved with providing agricultural supplies and/or processing, marketing, transporting, and distributing agricultural materials and consumer products. Agricultural businesses provide various agriculture-related services. <ol style="list-style-type: none">1. Transportation2. Storage3. Refrigeration4. Credit and finance5. Insurance6. Processing7. Animal health care (veterinarians, pet services)8. Landscaping, lawn mowing services9. Environmental services, forestry, conservation Agricultural businesses supply diverse products. <ol style="list-style-type: none">1. Crops, plants, nursery, horticulture2. Livestock, small animal (pets)3. Equipment4. Supplies5. Processed food products |

| Instructor Directions | Content Outline |
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| | 6. Plant and animal by-products |
| <p>Objective 2</p> <p><i>Ask students if they know who owns the local MFA or another agricultural business in the area. Discuss the students' responses and tell them that after this discussion they will have a better idea of how that business operates. Ask the students if they can identify any of the types of business structures.</i></p> <p><i>Explain that there are four main types of business structures. In the second column of AS 1, have students classify the agricultural businesses they previously identified into one of the business structures listed at right.</i></p> <p> AS 1 – Agricultural Businesses</p> | <p>Describe the types of business structures.</p> <p>Sole ownership</p> <ol style="list-style-type: none"> 1. This type of business is owned and managed by one person, known as an entrepreneur. 2. Solely owned businesses are usually small, simple, and easy to manage. 3. Any profit or expense goes to or comes from the owner. <p>Partnership</p> <ol style="list-style-type: none"> 1. Business association of two or more people who share responsibilities 2. Beneficial if there are two or more people with specialized skills <p>Cooperative</p> <ol style="list-style-type: none"> 1. Provides goods and services to members at cost or as close to cost as possible 2. Is not formed to make a profit but to serve the people who own shares in the organization <p>Corporation</p> <ol style="list-style-type: none"> 1. This is an organization owned by several people but treated by law as if it were one person. 2. Stockholders elect a board of directors chosen specifically to make decisions for the company. 3. Corporations are one of two types: <ol style="list-style-type: none"> a. S-corporation - family or small business b. C-corporation - regular corporation that sells stocks to investors |
| <p>Objective 3</p> <p><i>Have students think back to the deli sandwich and the processes that went into the production of each component. Discuss the role that the producer plays and use the board to diagram the processes that a local product goes through to get to the grocery store.</i></p> | <p>Determine the different sectors of agricultural business.</p> <p>Inputs (businesses supplying services and supplies)</p> <ol style="list-style-type: none"> 1. Needed to produce goods and services in agricultural businesses 2. Services - financing, consulting services, insurance, and various federal support services (price support, conservation programs, disaster assistance, and commodity operations), etc. 3. Supplies - water, seed, feed, fertilizer, livestock feeder |

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| <p><i>Use PPt 2 to illustrate the basic sectors of Missouri's agricultural business. Point out that the percentages may have changed since the graphic was created.</i></p> <p><i>In the appropriate column on AS 1, have students classify each agricultural business they identified earlier into one of the four sectors.</i></p> <p> AS 1 – Agricultural Businesses</p> <p> PPt 2 – Agricultural Business Sectors in Missouri</p> | <p>stock, farm machinery and equipment, petroleum, and chemicals, etc.</p> <p>Production - The production sector yields raw commodities that come from farms, ranches, plantations, holdings, etc., such as cattle, wheat, vegetables, fruit, and rabbits.</p> <p>Processing and marketing</p> <ol style="list-style-type: none"> 1. Raw commodities are transformed into a final product that is ready for consumption. <ol style="list-style-type: none"> a. Grinding wheat into flour b. Turning cattle into steak 2. Processing facilities are predominantly in urban areas. 3. Once a product has been processed, the next steps are as follow: <ol style="list-style-type: none"> a. Market the finished product through advertisement, public service announcements, media campaigns, etc. b. Transport and distribute the finished product to the consumer. <p>Wholesale and retail (sales and customer service)</p> <ol style="list-style-type: none"> 1. Wholesale <ol style="list-style-type: none"> a. Agricultural businesses that sell large quantities of processed commodities are known as “wholesalers.” b. The wholesale price is the amount received for a commodity at the first point of sale. 2. Retail <ol style="list-style-type: none"> a. Retailers sell agricultural product directly to the consumer. b. People at various stores, supermarkets, department stores, chain stores, etc., provide service to the customer. |
| <p>Objective 4</p> <p><i>Have students identify products and services that are produced in their area. List on the board the information the class described.</i></p> | <p>Explain the importance of agricultural businesses to the community, nation, and world.</p> <p>Community</p> <ol style="list-style-type: none"> 1. Provide jobs and income 2. Provide food, products, supplies, and services 3. Contribute to the local tax base |

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| <p><i>Then have students identify what the product becomes. Finally, ask the students if they know where the finished product ends up. At the end of the discussion, ask the students what it would be like if some of the products were not produced.</i></p> <p><i>Describe how products from the students' communities are distributed to people around the world and how important this is. Explain that some communities rely on nearby towns to provide goods and services. This not only expands the sources of available agricultural businesses, but it also extends the concept of "community" from a local to a regional entity.</i></p> <p><i>In the appropriate column on AS 1, the students now identify the products, service, or role of agricultural business in the community, nation, or world.</i></p> <p> AS 1 – Agricultural Businesses</p> | <ol style="list-style-type: none"> 4. Provide a way of life for some members of the community 5. Extend sense of community due to proximity and access to other communities <p>Nation</p> <ol style="list-style-type: none"> 1. Support country's economy 2. Transport and distribute food and other commodities raised in specific regions throughout the country 3. Create shelter nationwide 4. Provide clothing 5. Produce fuel (e.g., corn produces ethanol; soybeans create fuel additives) <p>World</p> <ol style="list-style-type: none"> 1. Support developing nations by providing food, supplies, services 2. Promote worldwide trade, which stimulates international economic growth |
| <p>Objective 5</p> <p><i>Ask students if they can think of any technological advancement that has affected agriculture. They may mention artificial insemination, genetically modified organisms (GMOs), Roundup Ready soybeans, or cloning as examples. Analyze how these advances helped enhance production. On AS 1, ask the students to list an effect that</i></p> | <p>Describe the roles technology plays in agricultural business.</p> <p>Plant production</p> <ol style="list-style-type: none"> 1. Pesticide-, herbicide-resistant crops 2. Hybrid seed 3. Drought-resistant crops 4. Genetically modified organisms (GMOs) 5. Genetic engineering <ol style="list-style-type: none"> a. Pharmaceuticals b. Nutraceuticals 6. <i>Bacillus thuringiensis</i> (Bt) corn <ol style="list-style-type: none"> a. Bt is a soil bacterium that is used as an alternative to chemical pesticides. |

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| <p><i>technology has had, or could have, on the agricultural businesses identified earlier.</i></p> <p> AS 1 – Agricultural Businesses</p> | <ul style="list-style-type: none"> b. Bt corn crops are resistant to disease and insects. <p>7. Precision agriculture</p> <ul style="list-style-type: none"> a. Helps increase food production b. Uses global positioning system (GPS) <p>Animal production</p> <ul style="list-style-type: none"> 1. Artificial insemination 2. Embryo transfer 3. Cloning 4. Genetic engineering <p>Computers</p> <ul style="list-style-type: none"> 1. Provide up-to-date market prices (buy, sell, invest) 2. Maintain record keeping (receipts, expenses, investments) 3. Generate tax returns (e.g., TurboTax and Quicken) 4. Calculate ration formulations 5. Use of e-commerce in marketing and distribution of agricultural products <ul style="list-style-type: none"> a. Facilitates immediate interaction among producers b. Provides opportunity to share information locally, nationally, and globally |
| <p>Application:</p> <p> AS 1 – Agricultural Businesses</p> | <p>Answers to AS 1 Answers will vary.</p> <p>Other activities</p> <ul style="list-style-type: none"> 1. Invite an agricultural businessperson to speak with the class about his/her company and the role it plays within the community. Encourage the class to ask the speaker if this business is important to the nation and world. After this conversation, ask the students to include this agricultural business on AS 1. 2. Take a field trip to different agricultural businesses so students can discover the wide array of agricultural businesses and operations that are in the local area. 3. Many companies offer new or prospective employees access to videos about the company's purpose that provide detailed information about its daily operations. Call local agricultural business representatives and request a video for educational |

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| | purposes and show this to your class. Check the company's web site for further information. |
| Closure/Summary | <p>An agricultural business is any enterprise that produces crops or livestock; processes, markets, transports, or distributes agricultural supplies, equipment, or consumer goods. These businesses range from individual producers to large corporations. The four basic structures of agricultural businesses are sole ownership, partnership, cooperative, and corporation. In Missouri, the four basic agricultural business sectors are (1) inputs (services and supplies), (2) production, (3) processing and marketing, and (4) wholesale and retail. Agricultural businesses are important to the local community, nation, and throughout the world. Thanks to an ever-evolving technology, producers are better able to market their products and consumers have an easier time finding what they need.</p> |
| Evaluation: Quiz | <p>Answers:</p> <ol style="list-style-type: none"> 1. C 2. E 3. A 4. D 5. An agricultural business is any enterprise that produces crops or livestock or is involved with providing agricultural supplies and/or processing, marketing, transportation, and distribution of agricultural materials and consumer products. 6. <ol style="list-style-type: none"> a. Inputs (services and supplies) b. Production c. Processing and marketing d. Wholesale and retail 7. Answers will vary. 8. Answers will vary. 9. Answers will vary. |