

Course	Agricultural Science I
Unit	Sheep Production
Lesson	Selection of Sheep
Estimated Time	50 minutes

Student Outcome

Outline the decisions used for selection of sheep.

Learning Objectives

1. Identify major differences observed among common sheep breeds.
2. Determine which factors should be considered when selecting a breed.
3. List characteristics to consider when selecting an individual sheep.
4. Identify the primary parts of a sheep.
5. Define terms related to sheep and sheep production.

Grade Level Expectations

SC/LO/3/E/09-11/a

SC/EC/3/B/09-11/a

Resources, Supplies & Equipment, and Supplemental Information

Resources

1. PowerPoint Slide
 - ☐ PPt 1 – Body Parts of a Sheep
2. Activity Sheets
 - ☐ AS 1 – Sheep Breeds
 - ☐ AS 2 – Labeling Body Parts of a Sheep
3. *Sheep Production (Student Reference)*. University of Missouri-Columbia: Instructional Materials Laboratory, 2001.
4. *Sheep Production Curriculum Enhancement*. University of Missouri-Columbia: Instructional Materials Laboratory, 2003.

Supplies & Equipment

- ☐ Sheep from local sheep producer (or arrangements to go to sheep farm, if possible)
- ☐ Photographs or videos of sheep breeds

Supplemental Information

1. Internet Sites
 - ☐ Sheep. Breeds of Livestock. Oklahoma State University. Accessed July 2, 2007, from <http://www.ansi.okstate.edu/breeds/sheep/>.
 - ☐ Sheep (4-H livestock judging manual). Mississippi State University. Accessed July 2, 2007, from <http://msucares.com/pubs/publications/p2289sheep.pdf>.
 - ☐ *Sheep Evaluation, Selection and Judging*. Department of Animal Science. University of Tennessee. Accessed July 2, 2007, from <http://animalscience.ag.utk.edu/ITCModules/Module1/Parts/Parts.htm>.
2. Print
 - ☐ Acker, D. and M. Cunningham. *Animal Science and Industry*. 5th ed. Upper Saddle

-
- River: Prentice Hall, 1998.
- ❑ Barrick, R. K. and H. L. Harmon. *Animal Production and Management*. New York: McGraw-Hill Book Company, 1987.
 - ❑ Gillespie, J. R. *Animal Science*. Albany: Delmar Publishers, 1998.
 - ❑ Herren, R. V. and R. L. Donahue. *The Agriculture Dictionary*. Albany: Delmar Publishers, Inc., 1991.
 - ❑ Ricketts, G. E., Scoggins, R. D., and Thomas, D. L. *Management Guidelines for Efficient Sheep Production*. University of Illinois at Urbana-Champaign. North Central Regional Extension Publication 240.
 - ❑ Scott, G. E. *The Sheepman's Production Handbook*. Denver: Abegg Printing, 1982.
 - ❑ *Sheep Resource Handbook for Market and Breeding Projects*. Curriculum Materials Service: Ohio State University, 2000. (More information available at <http://www-cms.ag.ohio-state.edu/>).
 - ❑ Smith, B., M. Aseltine, and G. Kennedy. *Beginning Shepherd's Manual*. 2nd ed. Ames: Iowa State University Press, 1997.
 - ❑ Taylor, R. E. and T. G. Field. *Scientific Farm Animal Production: An Introduction to Animal Science*. 6th ed. Upper Saddle River: Prentice Hall, 1998.
-


Interest Approach

Ideally, arrange for a sheep, or a number of sheep, to be brought to the classroom.

Optionally, arrange for a field trip to a local sheep producer's farm. Ask students to make a list of characteristics or traits that they observe about the sheep. If there are multiple breeds of sheep available, ask students to list ways that the sheep are similar or different. If no live sheep are available, the same type of activity can be done with photos/videos of different types or breeds of sheep.

Communicate the Learning Objectives




1. Identify major differences observed among common sheep breeds.
2. Determine which factors should be considered when selecting a breed.
3. List characteristics to consider when selecting an individual sheep.
4. Identify the primary parts of a sheep.
5. Define terms related to sheep and sheep production.


Instructor Directions	Content Outline
<p>Objective 1</p> <p><i>Identify the major breeds in Missouri and the Midwest and describe the differences among them. Provide students with handouts (or Web addresses for Internet sites) so that they can see the primary breeds of sheep.</i></p> <p><i>After reviewing the major breeds identified, extend and enrich this discussion by asking the class to complete AS 1. Encourage each student to select a different breed to research.</i></p> <p> AS 1 – Sheep Breeds</p>	<p>Identify major differences observed among common sheep breeds.</p> <p>Ewe (maternal) breeds have strong traits in mothering, multiple births, longevity, milking abilities, and adaptability to certain environmental conditions. They are also known for their large body size and wool production.</p> <ol style="list-style-type: none">1. Corriedale<ol style="list-style-type: none">a. Polledb. White face, ears, and legsc. Acceptable carcass qualities2. Delaine-Merino<ol style="list-style-type: none">a. Rams horned, ewes polledb. Fine white woolc. Do well on poor grazing ground3. Finnsheep<ol style="list-style-type: none">a. Small frameb. White ears, nose, face, and legsc. Medium to coarse fleeced. High lambing rates4. Rambouillet<ol style="list-style-type: none">a. Large, blocky frameb. Ewes polled, rams both horned and polledc. White, fine woold. Very hardy5. Targhee<ol style="list-style-type: none">a. Large, blocky frame

Instructor Directions	Content Outline
	<ul style="list-style-type: none"> b. Polled c. White face with no wool d. Long reproductive life <p>6. Columbia</p> <ul style="list-style-type: none"> a. Large, blocky frame b. White face, ears, and legs c. No wool on face d. Long legs <p>Ram breeds are strong, muscular, and have good carcass quality. These animals have exceptional growth rate and are raised for meat purposes.</p> <p>1. Cheviot</p> <ul style="list-style-type: none"> a. Small, blocky frame b. Polled c. White face, black nostrils, and white legs <p>2. Hampshire</p> <ul style="list-style-type: none"> a. Large, blocky frame b. Polled c. Black face, ears, nose, and legs d. Medium to fine wool e. Ewes – good milkers <p>3. Oxford</p> <ul style="list-style-type: none"> a. Very large, blocky frame b. Polled c. Gray to brown face, ears, and legs <p>4. Suffolk</p> <ul style="list-style-type: none"> a. Large, blocky and muscular frame b. Polled c. Black face, ears, and legs d. No wool on legs and head e. Rapid growth f. Desirable, muscular carcasses <p>Dual-purpose breeds are raised for wool and meat production.</p> <p>1. Dorset</p> <ul style="list-style-type: none"> a. Blocky frame b. Medium sized c. Can be polled or horned d. White ears, nose, face, and legs e. Medium to coarse fleece f. Muscular carcass

Instructor Directions	Content Outline
	<ol style="list-style-type: none"> 2. Montadale <ol style="list-style-type: none"> a. Blocky frame b. Polled c. White face, ears, and legs d. No wool on legs or face <p>Other breeds are also raised, such as hair breeds and milk breeds.</p>
<p>Objective 2</p> <p><i>When producers select a breed, they consider many factors along with their personal preferences. Ask the students to identify some of these factors.</i></p>	<p>Determine which factors should be considered when selecting a breed.</p> <p>Type of enterprise</p> <ol style="list-style-type: none"> 1. Region of the country the producer lives in 2. Resources available <ol style="list-style-type: none"> a. Forages b. Land c. Finances d. Time e. Labor/management <p>Adaptability</p> <ol style="list-style-type: none"> 1. Environmental adaptability 2. Flocking instincts <p>Availability of food/fiber resources</p> <p>Marketing opportunities</p> <ol style="list-style-type: none"> 1. Having a market nearby 2. Ensuring that there is a demand for the breed the producer intends to raise <p>Availability of breeding stock</p> <ol style="list-style-type: none"> 1. Research available breeds of sheep in the area. 2. Determine if breeds contain the desired traits. <p>Shelter and equipment</p> <ol style="list-style-type: none"> 1. Necessary to meet basic needs 2. Provides protection and heating for winter lambing
<p>Objective 3</p> <p><i>Many factors are considered when selecting an individual sheep. Ask</i></p>	<p>List characteristics to consider when selecting an individual sheep.</p> <p>Soundness - free of blemishes or defects with good feet and legs</p>

Instructor Directions	Content Outline
<p><i>the students what they would look for in a sheep. Discuss how important it is to understand everything associated with selecting sheep. Producers need to know what they are purchasing.</i></p> <p><i>Five of the most common selection factors are discussed here. Such factors may determine if a producer will make or lose money.</i></p>	<p>Production records with the following information:</p> <ol style="list-style-type: none"> 1. Heredity 2. Nutrition 3. Fertility 4. Age at puberty 5. Any birthing difficulties of the ewe 6. Disease and parasites <p>Conformation</p> <ol style="list-style-type: none"> 1. Conformation concerns the height, length, and depth of body. 2. Good features include the following: <ol style="list-style-type: none"> a. A straight top line b. Good-sized, strong, straight legs so the sheep can carry themselves properly c. A good length of body d. In ewes, a wide rump with a 15° angle from hips to pins to promote easier lambing <p>Health</p> <ol style="list-style-type: none"> 1. Identify common diseases before purchasing sheep animals. 2. Request health records signed by a veterinarian. 3. Buy animals from a well-known and respected breeder. <p>Economic traits - rate of gain variable by breed</p>
<p>Objective 4</p> <p><i>Ask the students why it is important for producers to be able to identify the parts of a sheep. Ask them how producers could inform the veterinarian of a problem on a certain area of the sheep without this knowledge.</i></p> <p><i>Using the same sheep that was used in the Interest Approach, point to various sections of the animal. If it is not possible to have a real sheep in the classroom,</i></p>	<p>Identify the primary parts of a sheep.</p> <ol style="list-style-type: none"> 1. Muzzle 2. Face 3. Eye 4. Poll 5. Ear 6. Top of shoulder 7. Back 8. Loin 9. Saddle 10. Rump 11. Dock 12. Thigh 13. Hock

Instructor Directions	Content Outline
<p><i>then use PPt 1 as an illustration. Review the parts of a sheep with the students. Then distribute AS 2 and have the students identify the parts of a sheep.</i></p> <p> PPt 1 – Body Parts of a Sheep</p> <p> AS 2 – Labeling Body Parts of a Sheep</p>	<ul style="list-style-type: none"> 14. Pasterns 15. Flank 16. Belly 17. Ribs 18. Hoof 18. Forearm 20. Breast 21. Shoulder 22. Neck
<p>Objective 5</p> <p><i>Ask students to name terms associated with sheep and sheep production and list them on the board. Remind them that there are many other terms; this lesson identifies only some of them. Students should refer to the Glossary in the Student Reference for additional sheep terms.</i></p>	<p>Define terms related to sheep and sheep production.</p> <ul style="list-style-type: none"> 1. Banding - (1) This is a method of castration in which a tight rubber band is placed around the scrotum. This procedure cuts off circulation to the testicles and destroys them. (2) This is a method of docking in which a tight rubber band is placed around the tail, which cuts off circulation to the tail and destroys it. 2. Creep feeding - a penned-in feeding system for young lambs with an opening that prohibits mature sheep from entering; the feeder contains special feed for the young lambs while they are nursing 3. Dock - (noun) the stub end on a sheep's or lamb's tail; (verb) to cut short a lamb's tail for sanitary reasons 4. Dry lot management - a bare, fenced-in area used as a place to feed and fatten lambs 5. Ewe - a female sheep of any age 6. Lamb - the offspring (of either sex) of a sheep; meat that is less than 1 year old 7. Muscling – the lack of fat in meat; the desire to have increased amounts of muscle mass in the areas where the most desirable meat cuts are taken from an animal 8. Mutton - the meat of a grown sheep that is more than 2 years old 9. Ram - a male sheep that has not been castrated and is used for breeding purposes 10. Wether - a castrated male sheep
<p>Application:</p> <p> AS 1 – Sheep Breeds</p>	<p>Answers to AS 1 Answers will vary.</p>

Instructor Directions	Content Outline
<p> AS 2 – Body Parts of a Sheep</p>	<p>Answers to “Key Questions” on AS 2</p> <ol style="list-style-type: none"> 1. Muzzle 2. Face 3. Eye 4. Poll 5. Ear 6. Top of shoulder 7. Back 8. Loin 9. Saddle 10. Rump 11. Dock 12. Thigh 13. Hock 14. Flank 15. Belly 16. Ribs 17. Pasterns 18. Hoof 19. Forearm 20. Breast 21. Shoulder 22. Neck <p>Other activities</p> <ol style="list-style-type: none"> 1. Contact a local livestock specialist through the county outreach and extension office. Have the specialist talk about the breeds of sheep in the area. Have the agent also talk about factors that should be considered with these breeds. 2. Order sheep learning CDs and kits for students from Curriculum Materials Service, Ohio State University. Their Web address is http://www.ohioaged.org/ (accessed July 3, 2007).
<p>Closure/Summary:</p>	<p>The decisions a producer makes in selecting sheep determine if the operation will succeed. A producer must know the breeds of sheep available and consider various factors when making his/her selection. When selecting specific animals, a producer also considers various attributes. Being able to identify the parts of a sheep and understand terms associated with sheep and sheep</p>

Instructor Directions	Content Outline
	production allows the producer to communicate with the vet and other producers.
Evaluation: Quiz	Answers: 1. a 2. b 3. d 4. c 5. a 6. b 7. e 8. d 9. a 10. c 11. b