

Unit E: Other Poultry

Lesson 3: Exploring the Turkey Industry

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

1. Describe the types of turkeys raised in Afghanistan.
2. Manage turkey production at home.
3. Discuss and identify the equipment used for raising turkeys.

Recommended Teaching Time: 2 hours

Recommended Resources: The following resources may be useful in teaching this lesson:

- A PowerPoint has also been developed for use with this lesson plan
- http://www.vetmed.ucdavis.edu/vetext/INF-PO_TurkeyCarePrax.pdf
- <http://extension.missouri.edu/publications/DisplayPub.aspx?P=G8352>
- <http://www.ksre.ksu.edu/library/fntr2/FOODASYST/2poultry.pdf>
- <http://web1.msue.msu.edu/poultry/poultry/e1259/e1259.pdf>

List of Equipment, Tools, Supplies, and Facilities

Writing surface
PowerPoint Projector
PowerPoint Slides
Live turkeys (optional)
Copies of Student Worksheets

Terms: The following terms are presented in this lesson (shown in bold italics and on PowerPoint Slide # 2):

airsacculitis
blackhead organism
coccidiosis

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.

Show a picture of a turkey (PowerPoint slide #3) or bring a turkey into the classroom. Ask the class to brainstorm ideas about how turkeys are different and similar to other poultry. Discuss items such as feed, housing and growth. Use this discussion to lead into Objective 1.

Summary of Content and Teaching Strategies

Objective 1: Describe the types of turkeys raised in Afghanistan.

(PowerPoint Slide #4)

- I. Like all other poultry, turkeys in Afghanistan range from common worldwide breeds to local breeds which are a result of cross breeding.
 - A. The turkey is native to America and all varieties and/or strains originated in the United States.
 1. There are three turkey varieties or strains that are more or less readily available.
 2. Six or eight varieties have been developed from the original wild Bronze turkey.

(PowerPoint Slide #5)

- B. Some of the more common turkey breeds include:
 1. Noorstani
 2. Pakistani
 3. China
 4. Persian
 5. Watani (local)
 6. Leghorn

(PowerPoint Slide #6)

- C. The most common local breeds are the Kolangi and the Khasak.
 1. The Kolangi is quite large.
 - a. It has long wings and feathers
 - b. It is also very strong and energetic
 2. The Khasak is smaller than Kolangi breed.

Provide students with copies of WS: E3-1 to compile a packet of common turkey breeds and their information. Try to find examples of common turkey breeds of Afghanistan so pictures can be taken.

Objective 2: Manage turkey production at home.

(PowerPoint Slide #7)

- II. Raising turkeys at home can be a fun and rewarding process if simple practices are followed.
 - A. Provide the turkeys a suitable facility in which to grow.
 1. Turkeys are best raised inside but should be allowed to roam.
 - B. Keep turkeys in a low-density environment (about 1 square meter per bird) and it will be easier to clean up the waste.
 1. If turkeys are tightly confined, the area should be cleaned every day.

(PowerPoint Slide #8)

- C. Turkeys are very curious.
 1. Young turkeys have been known to drown in a half-filled pail of water—not just one bird, a bucket full of birds, one after the other.
 2. However, turkeys need to be provided with food and water as soon as they hatch as most times they will not eat or drink and will die if they are not shown the food or water.

(PowerPoint Slide #9)

- D. You will need to provide at least three different feeds—starter, grower and finisher.
 1. Frequently the grower feed can be made into a finisher by giving the birds access to grains (corn, oats, wheat, etc.).
 2. You should use the feeds as follows:

- a. 0-6 weeks is the starter ration with 28-30% protein
- b. 7-13 weeks is the grower ration with 21% protein.
- c. 14-24 weeks is the finisher ration with 16-18% protein.

(PowerPoint Slide #10)

- 3. They will consume about 2 kilograms of starter feed, 9 kilograms of grower feed, and 22.5-25 kilograms of finisher feed.
- 4. The birds will average 9 kilograms each at 24 weeks of age, with the toms about 11 kilograms and the hens about 6.8 kilograms.

(PowerPoint Slide #11)

- E. The diseases that may bother the small grower are blackhead, coccidiosis and airsacculitis.

 1. All of these diseases are caused by organisms that are specific for each disease.
 2. Keeping these organisms from coming into contact with your birds can be accomplished by isolation and sanitation.
 3. **Coccidiosis** is a disease that thrives in damp, warm litter.
 - a. Clean, fresh water is spilled and litter gets wet, coccidiosis organisms can grow.

(PowerPoint Slide #12)

- 4. **Airsacculitis** is a respiratory disease.
 - a. As the name suggests, it is a disease that invades the air sacs: The lungs in the turkey are rigid and are imbedded in the rib area.
 - b. The air sacs act as bellows, drawing air into and pushing it out of the lungs through the nasal openings.
 - c. This is one of the very few diseases that is transmitted through the egg to the poult.
 - d. There is no satisfactory treatment for airsacculitis.

(PowerPoint Slide #13)

- F. Turkeys are very susceptible to the **blackhead organism**.

 1. 100 percent mortality can result if they contract this disease and have not been protected with medication.
 2. Many chickens carry blackhead organisms without apparent effect on the chicken.
 - a. Therefore, one of the cardinal principles is never raise chickens and turkeys together; turkeys must be completely isolated from chickens.

Find turkey eggs to hatch in the classroom. Alternately, invite somebody who raises turkeys into the classroom to discuss their turkey production methods.

Objective 3: Discuss and identify the equipment used for turkeys.

(PowerPoint Slide #14)

- III. The equipment used for turkeys is similar to that of other poultry.
- A. Keep very young poult warm and dry.
 1. Shavings, crushed corn cobs and straw make very good litter material.
 2. Sawdust also works, but not as well because it tends to pack when wet.
 3. Cover the litter material with cloth, burlap bags or rough paper for the first four or five days.
 4. After about four or five days the birds will have located the food and water and will stop eating the litter.

(PowerPoint Slide #15)

- B. When poult are in the brooder, a fence of cardboard or similar material should be used to corral them underneath the heat source.
 1. Turkeys are not smart enough to stay under the heat source so they will need to be directed to it.
 2. Also, they will burn themselves if left to roam freely around a heat source.

(PowerPoint Slide #16)

- C. A hanging feeder is a good type with which to start the birds.
 - 1. It can be placed on the floor, which will allow day-old birds to eat from it.
 - 2. As the birds grow, the feeder should be raised.
 - 3. The birds' shoulders should always be higher than the rump when they are eating.

(PowerPoint Slide #17)

- 4. The birds should not reach down for feed after the first few weeks.
 - a. When they reach down for the feed, they frequently bill feed out of the feeder into the litter.
 - b. Feed is very expensive litter.
- 5. When the birds get older, a covered feeder can be built.
 - a. Mash in one end and grain (corn, oats and wheat) in the other end will do a satisfactory job of feeding the larger birds.
- 6. The feeder works very well for birds on range as the feed does not get wet and spoil.

Refer back to the students' answers from the interest approach. Ask them if their ideas about how to raise turkeys were correct. Discuss again the differences between turkeys and other species of poultry.

Review/Summary: Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. Student responses can be used to determine which objectives need to be reviewed or re-taught with a different approach. Questions on **PowerPoint Slide #18** can also be used.

Application: Have the students use the information they found on WS: E3-1 and make a presentation in class about their turkey breed. They may make a poster, a pamphlet or a PowerPoint presentation to present their information.

Evaluation: Evaluation should focus on student achievement of this lesson's objectives. A sample written test is attached.

Answers to Sample Test:

Part One: Short Answer

1. Turkeys originated in America
2. The two most common turkey breeds in Afghanistan are the Kolangi and Khasak.
3. Turkeys must be provided with food and water as soon as they hatch because they will not go to the feed and water on their own and will die of starvation and dehydration.
4. Turkeys should be fed three different rations. The starter is fed from hatching until 6 weeks, the grower is fed from 7 to 13 weeks, and the finisher is fed from 14 to 24 weeks.
5. The three diseases that most commonly affect turkeys are blackhead, coccidiosis, and airsacculitis.
6. Turkeys and chickens should not be raised in the same area because chickens carry the blackhead organism which does not affect them but will cause death in turkeys.
7. Provide turkeys about one square meter per bird.
8. Coccidiosis is commonly found in warm, damp litter.
9. Airsacculitis is spread from the egg to the poult.

Test

Unit E Lesson 3: Exploring the Turkey Industry**Part One: Short Answer**

Instructions: Provide a short statement to correctly answer the question.

1. Where did turkeys originate?
2. What are the two most common turkey breeds of Afghanistan?
3. Why must turkeys be provided with food and water as soon as they hatch?
4. How many different types of feeds should be provided to turkeys, and at what age should they be fed?
5. What are the three diseases that most commonly affect turkeys?
6. Why should turkeys and chickens not be raised in the same area?
7. How much space should be provided per turkey?
8. Where is coccidiosis commonly found?
9. Which common poultry disease is spread from the egg to the poult?

Turkey Breeds of Afghanistan

Instructions: Provide as much information as possible about a common breed of turkey in Afghanistan. Try to find a picture or take a picture if possible.

Breed name	
Size (weight):	
Female	
Male	
Color:	
Female	
Male	
Other characteristics	