P.O. Box 27552, Richmond, Virginia 23261 Virginia Foundation for Agriculture in the Classroom What's Growing On In Virginia?



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About the Newsletter

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What's Growing On In Virginia?

AGRICULTURE IN THE CLASSROOM

Virginia poultry: Something to squawk about

Say the word "poultry," and most people think of chicken. But Virginia's poultry industry includes so much more. Poultry refers to domestic birds raised for eggs and meat. It encompasses broilers, the chickens that are raised for meat; layers, the hens that lay eggs; and turkeys.

The state's poultry industry supports the livelihood of nearly 1,100 farm families, according to the Virginia Poultry Federation. Those families operate more than 800 chicken farms and more than 285 turkey farms.

Poultry pumps up the economy

Virginia's poultry producers contributed more than \$1 billion to the state's economy in 2011, the federation said. That year, poultry farmers raised 243.8 million broiler chickens, ranking Virginia ninth nationally for broiler production. Virginia was ranked fifth for turkey production, with 17.5 million birds. And the state's poultry farmers produced 729 million table eggs. So where are all these birds?

Farms in more than 30 counties across the state produce poultry commercially. But the majority of the birds are in the Shenandoah Valley. In fact, Rockingham County is the third largest turkey-producing county in the nation!

Poultry inputs make contributions

There are six poultry processing companies in Virginia: Cargill; George's Foods; Perdue Farms; Pilgrim's Pride; Tyson Foods; and Virginia Poultry Growers Cooperative. Collectively, these companies employ more than 10,000 people. That's something to squawk about!

Commercially raised poultry eat a nutritious diet made up mostly of corn and soybeans with added vitamins and minerals to maximize bird health. Despite what some people think, growers never give synthetic hormones or steroids to poultry. In 2011, Virginia poultry consumed 58.1 million bushels of corn and 642.1 million tons of soybean meal.

That sounds like a lot of corn and soybeans, but today's poultry production would have required a lot more corn a century ago. In the early 1900s, it took more than 5 pounds of feed to produce a pound of chicken; today's farmers produce a

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pound of chicken with less than 2 pounds of feed. This efficiency is the result of scientific advances in breeding and nutrition.

It is also the result of how well farmers take care of their birds in modern poultry houses, which use the latest technology to deliver feed and fresh water, protect birds from predators and maintain proper temperature.



Poultry is a favorite food

Americans love poultry. Per-capita U.S. poultry meat consumption has risen from 34 pounds in 1960 to nearly 100 pounds today.

The United States exports about 18 percent of the chicken and about 12 percent of the turkey it produces to countries all around the world. Currently, the top five U.S. chicken export markets are Mexico, Hong Kong, Russia, Cuba and Angola. The current top five turkey export destinations are Mexico, China, Hong Kong, Canada and the Philippines.

Poultry is chock-full of nutrition

Chicken and turkey are both excellent sources of protein, vitamin B and selenium. A 4-ounce boneless, skinless chicken breast has only 100 calories and 1 gram of fat. The same size boneless, skinless turkey breast has only 126 calories.

Eggs are another nutritional powerhouse. One egg has about 75 calories, is low in saturated fat and is packed with protein as well as almost every essential vitamin and mineral needed by humans, including vitamin D.

Which came first, the chicken or the egg?

Eggs come from chickens, but there are two types of eggsfertilized and unfertilized.

Hens that are not mated with roosters begin laying eggs when they are about 20 weeks old. These are the eggs that we scramble for breakfast.

Hens that mate with roosters lay fertilized eggs that contain chicks. Once the eggs are laid, they are housed in an incubator and hatch after 21 days.

At that point, the chicks are moved to broiler houses, where they grow until it's time for processing. While they are there, they can roam freely in the house, and most modern facilities have automatic feeding and watering systems.

The vast majority of chickens and turkeys raised for human consumption in the United States are produced by independent farmers who contract with poultry production and processing companies. The contracts help standardize production practices, ensuring consistent, quality products for consumers.

Generally, farmers care for the birds and provide land and housing, utilities, maintenance and labor. The processing company provides the birds, feed, veterinary supplies, technical services and transportation of birds to and from the farm.

Fun poultry facts

- A chicken can run as fast as 25 mph.
- There are more chickens in the world than any other species of bird.
- Baby chicks have belly buttons.
- Benjamin Franklin wanted the turkey to be the national bird.



"My birds are fed a good diet and kept in a controlled environment so there's no stress," said Billy Turner, who is holding one of the 26,000 poults (baby turkeys) that are delivered to his Page County farm every six months.





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Making poultry prints

Virginia's poultry industry, which includes chickens, turkeys and eggs, produces the state's largest agricultural commodity. Virginia's poultry operations employ more than 12,000 people. A significant amount of chicken and turkey raised in Virginia is exported to foreign countries.

1. Begin by reading a story about chickens or turkeys on the farm, and ask students to identify the animals in the pictures. Discuss how chickens live on a farm and the fact that some of them

2. Give each student a piece of construction paper.

3. Trace each student's shoe in the middle of the paper, and cut it out. This will form the body of your chicken, with the heel forming the head. Glue the shoe shape onto another piece of paper. 4. Have students use finger paint to stamp their hands around the chicken or turkey to form

5. Use a marker or crayon to add eyes and a beak.

Write a number on the chicken. Have students glue the correct number of eggs below the



Bonus Activities:

Chicken math interactive bulletin board

Liven up your classroom with an interactive bulletin board, engage students past the lesson. Check out our poultry one, and visit AgInTheClass.org to find even more ideas.

To Prepare:

Cut out several chickens, write an equation on each and attach to the board. In a pocket on the board, place eggs with various numbers written on them. Have students match each egg to the correct chicken.



SOL:

Language arts: 3.6, 4.6. 5.6 Math: : 4.4, 5.4, 5.5

Objective:

to read and understand non-fiction text, compare and contrast foods enjoyed at the first Thanksgiving and find the cost of a Thanksgiving meal by adding multiple

Materials:

decimal numbers.

• first-hand accounts of the first Thanksgiving at Plymouth Colony, available at: pilgrimhall.org/1stthnks.htm

• Venn diagram

• grocery store circulars

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Talking turkey

Background knowledge

In 1621 a three-day harvest festival took place among the Native Americans and settlers of The first Thanksgiving meal probably looked very different from current Thanksgiving

Plymouth Colony. Although there is evidence of earlier thanksgiving feasts in the Virginia colony, this festival generally is understood to be the first Thanksgiving celebration. It was more than 200 years later, in 1863, that President Abraham Lincoln declared Thanksgiving a national celebration. celebrations. The Native Americans and colonists might have dined on venison, lobster, fish, rabbit and various fruits such as grapes, strawberries, gooseberries, plums and raspberries. Today, no Thanksgiving feast would be complete without turkey. In fact, Americans purchase more than 280 million turkeys each year for Thanksgiving. Throughout the year the average American eats about 16 to 18 pounds of turkey. Virginia ranks fifth nationally for turkey production.

Procedure

- at the first Thanksgiving celebration.
- mentioned in the paragraphs.
- feast.

Extension

Group students into groups of three or four to form "families." Instruct each family to create a menu for a Thanksgiving meal. Distribute grocery store circulars to each group. Using the ads, have them determine how much each item on their table will cost, and then total the products. Compare and contrast the foods eaten by the Powhatan of the Eastern Woodlands region with those eaten by the Wampanoag.

> Stuffing Sweet Potatoes

- Pie

LESSON PLAN >> ELEMENTARY SCHOOL

1. Begin by having students share their favorite Thanksgiving foods. Ask them to predict how their favorites might be similar and different to what the colonists and Native Americans ate

2. Have students read the first-hand accounts of the first Thanksgiving written by colonists William Bradford and Edward Winslow. Instruct them to underline each of the foods

3. Have students draw a Venn diagram on their papers; write "Modern" above one circle and "First" above the other. Students will then compare and contrast the foods enjoyed at each



The Incredible Bouncing Egg

Materials: one hard-boiled egg, white vinegar, plastic container with lid.

Directions:

- 1. Place the egg in the plastic container. Cover completely with white vinegar, and seal the lid.
- 2. Observe the egg daily for one week.
- 3. At the end of one week, the shell will have dissolved, and the egg white and yolk will have become rubbery.
- 4. Rinse and dry the egg, drop it on the floor and watch it bounce!





LITERARY CORNER

Importance of poultry discussed in books

All About Turkeys, Jim Arnosky, Scholastic, ISBN: 9780590515153

Chicks & Chickens, Gail Gibbons, Holiday House, ISBN: 9780823417001

Chickens on the Farm, Mari Schuh, Capstone Press, ISBN: 9780736891424

A Chicken's Life, Nancy Dickmann, Heinemann Educational Books, ISBN: 9781432941390

Chicken said, "Cluck!", Judyyann Ackerman Grant, Harper Collins, ISBN: 9780060287238

Farm, Elisha Cooper, Orchard Books, ISBN: 9780545070751

Turkeys on the Farm, , Mari Schuh, Capstone Press, ISBN: 9780736811903



AITC Program Highlights Check out our new website

When you visit Agriculture in the Classroom on the Web, you'll find a new look, along with many new lessons and resources for use in your classroom. Go to AgInTheClass.org, and see what it has to offer.

Reserve a spot at a fall conference

AITC trainers will be presenting at the Virginia Association of Science Teachers and the Virginia Social Studies Educators conferences this fall. Come see us, and find out how to incorporate agriculture into your own classroom. Can't make it to a conference? AITC will come to you. Contact us today to schedule a staff development session for your school or division: aitc@vafb.com.

Training and resources are still free

Teachers like you are our partners in helping us achieve our mission of educating children on the importance of agriculture. The training and resources that we provide Virginia educators are provided at absolutely no cost, due to donations made to our foundation. We would like to