

Ask the Experts

Mr. Matt Lohr – Commissioner of Agriculture in Virginia

How did you become interested in your career?

I was raised on a farm that has been in my family for over 100 years. As a kid I loved working on the farm with my father and grandfather. I knew early on I wanted a career in farming, but as I grew older I knew I also wanted to help keep agriculture strong.

If you had to pick one thing important about your career for people to know, what would it be?

I am the first commissioner in many years that is also a farmer. I think this makes my job much easier as I can relate well to other farmers.



Mrs. Lindsay Reames – Agricultural Lobbyist

How did you become interested in this career?

I grew up on a dairy farm in Loudoun County. I knew that I wanted to work in agriculture, but I didn't want to be a full-time farmer. As a student, I took a trip to the State Capitol and saw the work that lobbyists did for farmers.



What advice would you give someone starting out in this career?

Be open to interacting with a number of people who are just as passionate as you are about agriculture and advocating for it. It is important to understand how others view issues in order to come up with compromises that will satisfy both sides.

Mrs. Julie Williamson – Owner & Manager of a Horse Farm

How did you become interested in this career?

I have wanted to work with horses for as long as I can remember. Because I had never lived on a farm, I went to college at Virginia Tech to learn more about managing a farm.

What advice would you give someone starting out in this career?

The best part on my job is watching a new foal run around outside with its mother. New babies are a lot of work but they can also be a lot of fun!



Review Questions

1. The first question for every person is the same. Compare the answers. How are the answers similar? How are they different?
2. What type of career to do you think might interest you? Why?

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Social Studies: VS.2, VS.3, VS.4, USI.3 English: 4.3, 4.5, 4.6, 5.4, 5.6, 5.7

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What is Agriculture?

Agriculture is responsible for so many things in your daily life. From the pizza that you eat to the jeans that you wear, these products began on farms. The agriculture industry involves many different people and types of jobs.

Some jobs, such as large animal veterinarians and seed scientists support the farmer, while others help process and deliver goods to the consumer.

What did you eat for breakfast or lunch today?
Brainstorm the different people that may have been involved in creating your meal. How many different people can you list?



Agriculture – Our Largest Industry

Agriculture is Virginia, as well as the nation's largest industry. In fact, in Virginia it contributes \$55 billion per year and provides more than 367,000 jobs!

In America approximately 24 million people produce, process, sell, and trade the nation's food and fiber.



Animal Ag Careers

Farm animals are very important. They provide us with many different food products such as cheese, beef, or chicken.

Farmers who raise animals are called livestock producers. It is their job to provide their animals with food, water, and shelter so that they will be healthy and strong.

Good nutrition is key in keeping both people and animals fit and healthy. To help farmers feed their animals healthy, nutritious food, an animal nutritionist creates the proper diet.

Another person who helps keep animals healthy is the veterinarian. Veterinarians treat illnesses or injuries in animals. You may take your cat or dog to the veterinarian, but there are also special vets for farm animals, these are called large animal veterinarians.



Vocabulary Builder

Read the paragraphs to the left. Use the context clues in the passage to define the words in white below.

Livestock:

Nutrition:

Veterinarian:

What does it mean when the suffix **-ist** is added to nutrition?

Use the clues to match the picture to the careers in **white**.

A fish farmer is an example of an **aquaculturist**.



A **dairy farmer** raises cows that give us milk.



A **poultry scientist** studies chickens and turkeys.



An **agricultural engineer** helps build shelters to house animals.



Did you know?



Chickens are Virginia's most valuable agricultural product.

In fact, the state is ranked in the top ten nationally in chicken production.



Virginia hams are famous around the world!



With 170,000 horses, Virginia is the 5th largest equine (horse) state in the US.

Plant People

What do a golf course superintendent, florist, and Christmas tree farmer each have in common? If you guessed “working with plants” then you are correct! Agriculture includes a wide variety of career opportunities that include plants; the following is a sample of different jobs involving plants. Read about the different careers and then answer the review questions below.



Turf Scientist – A turf scientist uses their knowledge to maintain turf, or grass. They must also know how to operate technical machines, such as irrigation equipment to make sure that the grass is properly watered. A turf scientist might work for a golf course, sports stadium, or business.

Entomologist – Entomology is the study of bugs. An entomologist may specialize in helpful insects, like a honeybee, or in pests, like gypsy moths. Those that specialize in pest management help farmers protect their crops.



Florist – A florist enjoys designing beautiful and creative arrangements of flowers. They also meet and work with customers to create their products.

Plant Pathologist – Pathology is the study of diseases. Plants, like people, can get sick. Plant pathologists study the causes of diseases and then try to figure out how to control them. Plant pathologists are very helpful to farmers because they help keep their crops healthy.



Forest Ranger – A forest ranger maintains the beauty of our natural forests and acts as a caretaker of the woods. One of the most important tasks of a forest ranger is to prevent and control forest fires. They might also map forest land and manage its use.

Review Questions:

1. What problem do plant pathologists try to solve? _____
2. What does the word “turf” mean? _____
3. Farmer Ben notices that bugs are eating all of his corn. Who should he call? The forest ranger, the plant pathologist, or the entomologist? _____
4. If you wanted to buy your mom flowers for her birthday, who would be the most helpful? The turf scientist, the florist, or the plant pathologist? _____
5. Why are plant pathologists helpful to farmers? _____
6. What is one of the most important jobs of a forest ranger? Why? _____

7. How is the work of an entomologist related to plants? _____

Career Spotlight

1. Choose any of the careers on this page. _____
2. What kind of skills do you think this person needs? _____

3. What kind of tools would this person use? _____

4. What kind of education do you think they would need? _____

Savvy Scientists

Science plays a very large role in agriculture and there are many different types of scientists. If you are fascinated by the changes in weather then you may be interested in being a climatologist. Climatologists study changes in **weather** over time and predict the effect of these changes.

If you are interested in protecting the earth’s natural resources then you may be interested in being an **environmental** scientist. An environmental scientist monitors land use and air or water **quality**, as well as waste management. They help keep our Earth green.

Similar to an environmental scientist, a **soil** scientist is also interested in protecting one of the earth’s natural **resources** – soil. They help farmers make the best use of the land and show them ways to prevent **erosion**. Additionally, they might create a soil survey by mapping and classifying the soil in an area.

Food scientists work to make sure that food has the proper flavor, texture, and nutritional quality. They use their knowledge of science to come up with the best ways to process or package food. Other food scientists help to keep food **safe** by enforcing government rules.

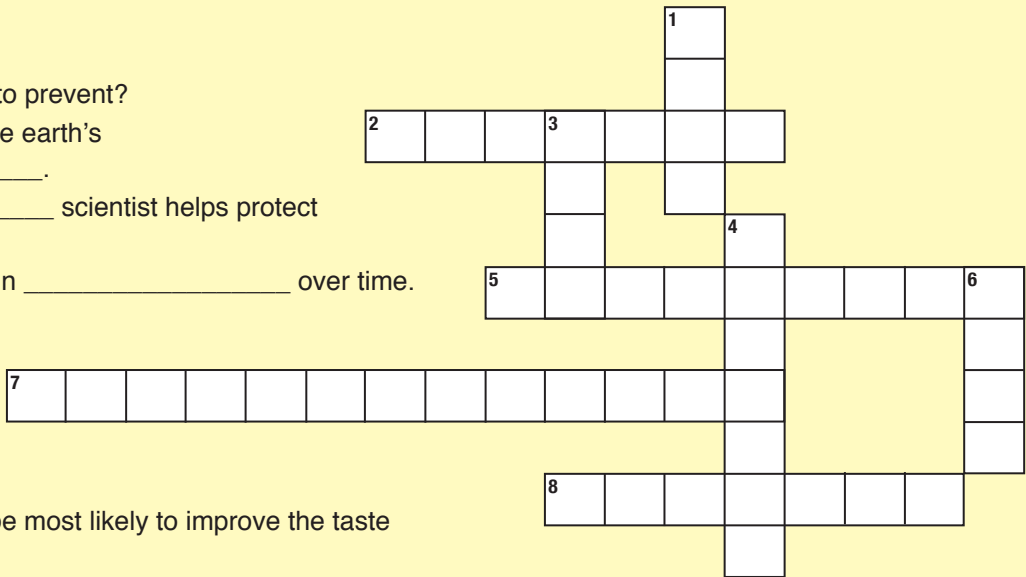
Crossword – use the words in **red** above to complete the puzzle below. Each word will only be used once.

Across

- 2. What might a soil scientist try to prevent?
- 5. Soil is an example of one of the earth’s natural _____.
- 7. A(n) _____ scientist helps protect the earth’s natural resources.
- 8. Climatologists study changes in _____ over time.

Down

- 1. Which type of scientist would be most likely to improve the taste of a certain kind of food?
- 3. One job of a food scientist is to help keep food _____.
- 4. An environmental scientist monitors air and water _____.
- 6. A(n) _____ scientist helps farmers make the best use of their land and grow fertile crops.

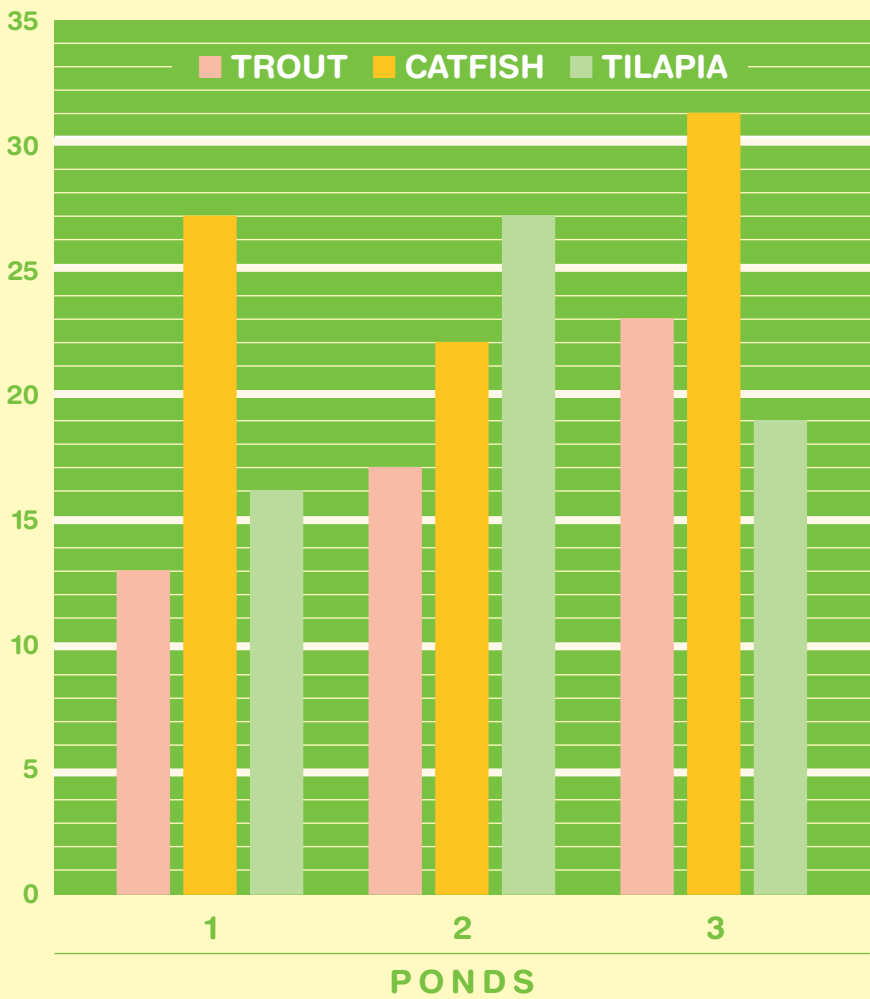


Counting Careers

Juan works in aquaculture as a fish farmer.
Use the chart to answer the questions and help Juan determine how many fish he has.



- 1. Which pond has the most tilapia? _____
- 2. How many more catfish are in pond three than in pond one? _____
- 3. How many trout are there in all?
Catfish? _____
Tilapia? _____
- 4. Juan wants to sell 5 of each type of fish from pond three. How many of each fish will he have left in that pond?
Tilapia _____
Catfish _____
Trout _____
- 5. Bonus: What do you think the word “aqua” means?



David is a florist. He is making bouquets of flowers. He has 47 bouquets with 12 flowers in each. How many flowers does he have in all? _____
Bonus: What does the word “bouquet” mean?

Kim is a dairy farmer. She has 44 cows. Each cow drinks 25.5 gallons of water a day. How many total gallons of water do they drink in a day? _____ In a week? _____
Each cow produces 90 glasses of milk a day. How many total glasses of milk are produced each day by Kim’s cows? _____
Bonus: Who would be most likely to help Kim determine the proper diet for her cows? The agricultural engineer, the animal nutritionist, or the entomologist?

