**Career Activity Scenario**

1. A family goes to the grocery store to pick up some groceries. The food in the grocery store exists because of well-managed natural resources such as soil and water, and the farmers and ranchers who grow the raw ingredients to fill the grocery stores. At the beginning of the season a farmer (also known as a grower or producer) needs to test soil to check for nutrients and to determine which fertilizers are necessary. The farmer needs the services of a (Soil Scientist).

2. As the farmer tries to decide which seed variety to plant, he or she will read agricultural publications written by (Science Writers).

3. A new seed hybrid that is better suited for the farmer’s climate or soil has been developed, who developed that seed? (Plant Geneticist).

4. The farmer has chosen the seed variety and determined what soil amendments are necessary. It’s time to go to the bank for a loan. The local farm lender is an (Agricultural Economist).

5. The farmer is ready to plant, but wants to wait until there are favorable weather conditions. The farmer watches the weather to make sure the area is not expecting wind gusts or rain which would blow or wash away the seeds. Who develops the weather report? (Climatologist).

6. A couple of months after planting, the plants are growing, but the farmer notices holes in the leaves.

They may be the result of an insect. Who can help identify the problem?

(Entomologist).

7. The farmer is considering a new tractor. The tractor dealerships have a variety to choose from. Who is responsible for the design work? (Agricultural Engineer).

8. The insects have been identified and sprayed, but now there are weeds threatening to take over the

field. Why are weeds harmful? Who can help him with this problem? Scientist).

(Weed

9. The weeds are gone, but the plants aren’t growing well. The farmer calls the University Extension office

in the county. The Extension Educator referred the farmer to a (Plant Physiologist).

10. The Plant Physiologist says that the plants are stressed by either too little water or high soil salinity. Who

can help the producer determine where irrigation is not reaching the plants? Sensing Specialist).

(Remote

11. The crop is ready to harvest, and the farmer delivers it to the processing plant. The processor will

turn the wheat, corn, cherries, etc. into bread, cookies, chips, pies, and so many other products. Who develops the food products? (Food Scientist).

12. Who determines the nutritional values of food? (Nutritionist/Dietitian).

13. What if the corn is bound for animal consumption rather than human consumption? Who helps determine feed rations (Animal Nutritionist)?

14. If an animal gets sick, who will a rancher call? (Veterinarian).

**Other Ag Career Descriptions**

*Cut these up and randomly choose 12 of them to read the definitions. Students who identify that is their job being described receive $300.*

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| **Aquaculurist** | Raises a diverse array of aquatic plants and animals in controlled or semi-controlled settings for food or the stocking of public bodies of water | **Agronomist** | Studies how to grow crops efficiently to improve the nation’s food supply. |
| **Biological Engineer** | Uses scientific principles and engineering involving the life sciences to create products and processes to meet human needs.( | **Viticulturist** | Specializes in growing high quality grapes. |
| **Botonist** | Studies all plant life. | **Animal Well-Being Specialist** | Use experiments to determine what the best environmental conditions are for difference species of animals. |
| **Environmental Scientist** | Protects the environment by working with hazardous waste management, land use, and air or water quality. | **Renewable Energy Specialist** | Specializes in alternative energy sources, geared to replace the fuel sources. |
| **Fisheries Biologist** | Dedicated to effective management, use, and conser­vation of aquatic plants and animals. | **Marine Scientist** | Focus on improving marine life—often specializes in particular marine animals. |
| **Florist** | Designs floral arrangements, works with customers and delivers flowers. | **Agricultural Inspector** | Ensures that food products follow FDA regulations. |
| **Naturalist** | Helps people live more productively without destroying the environment | **Agricultural Science Teacher** | Prepare students for careers in agriculture in a classroom setting. |
| **Forester** | Spends time managing the “timberland.” | **Food Process Engineer** | Design food processing systems in the handling and packaging of food. |
| **Range Manager** | Cares for our country’s vast rangelands | **Conservation Biologist** | Concerned wit the protection and sustainability of natural resources like air, water, land, and wildlife. |
| **Animal Geneticist** | Works with animal species at a “genetic” level. | **Nematologist** | Study roundworms, which can affect animals, plants, and humans. |
| **Horticulturist** | Works primarily with nursery and greenhouse crops. | **Wildlife Biologist** | Researches animals in their natural environments |
| **Hydrologist** | Assesses and protects our water supplies and quality | **Wood Scientist** | Studies the physical, chemical and biological properties of wood to find way to process it into different products |
| **Forest Engineer** | Designs timber transportation and harvesting systems | **Molecular Biologist** | Explores the structures and functions of cells on a molecular level. |
| **Plant Pathologist** | Deals with the symptoms, causes, damage, spread, and control of plant diseases. | **Nanotechnologist** | Manipulates matter on an atomic, molecular, and supramolecular scale. |
| **Turf Scientist** | Works to improve golf greens, park lawns, athletic fields, or other public or private grounds. | **Biometrician** | Uses statistics and applied mathematics to advise organization about health and life matters. |
| **Ecologist** | Studies the interrelationships between organisms and their environments |  |  |