

Career Activity Scenario

1. A family goes to the grocery store to pick up some groceries. The food exists because of farmers and ranchers who manage natural resources like soil and water carefully in order to 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 the soil to check for nutrients and to determine which fertilizers are necessary. The farmer needs the services of a _____ (Soil Scientist).
2. The fertilizer plant that produces the fertilizer to sell to the farmer wants to reduce its environmental impact. Who could the plant hire to help monitor waste discharge and assess environmental quality of the surroundings? _____ (Environmental Scientist)
3. The farmer is concerned that when it rains fertilizer from the fields may be getting washed into a nearby river. The farmer goes to the Natural Resources Conservation Service to enlist the help of a _____ (Hydrologist).
4. The farmer notices that the sheep are skinny despite having healthy appetites, and the alfalfa in the hay field is stunted and has swollen stems. The farmer suspects different kinds of worms have infected the sheep and the alfalfa. Who can help identify and treat these worms? _____ (Nematologist)
5. A new seed hybrid that is better suited for the farmer's climate or soil has been developed. Who developed that seed? _____ (Plant Geneticist)
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 insects have been identified and sprayed, but now there are weeds threatening to take over the field. If the weeds are not controlled soon, they will begin to outcompete the crop plants for sunlight, water, and soil nutrients. Who can help the farmer control this problem? _____ (Weed Scientist)
8. 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).
9. 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 across the hundreds of acres of fields? _____ (Remote Sensing Specialist)
10. 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 these food products? _____ (Food Scientist)
11. Who works with the food processor to ensure that the food produced is wholesome, safe, and sound? _____ (Food Safety Specialist)
12. Who determines the nutritional values of the food products? _____ (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 from eating too much corn, who will a rancher call? _____ (Veterinarian)