

## 2019 Oral Component Scenario

### Agriculture and the Environment: Knowledge and Technology to Feed the World

#### The Scenario:

The Pennsylvania Association of Sustainable Agriculture (PASA) is holding a workshop for PASA member farmers, entitled *“Agriculture and the Environment: Knowledge and Technology to Feed the World.”*

Workshop attendees already believe that sustainable agriculture is a worthy investment, but are coming to this event to gain more knowledge about how they might make their farm operations more resilient, especially as they face the challenges of feeding a growing population, increasing severe weather events, and new pests.

#### The Presentation:

As an Envirothon team, you are a group of five experts hired by PASA to give a presentation at this workshop. As a group, you have diverse experiences in conservation, agricultural technology, and sustainable farming.

Your audience, the Judges, are PASA member farmers who are attending your workshop.

Develop a 10-minute presentation to describe how these farmers will be able to feed the expanding human population while also protecting vital natural resources. Your presentation should discuss what practices farmers can begin adopting today that will have multiple impacts, addressing each of the following:

- I. **Reduce Inputs:** Explain ways that farmers can reduce fertilizers, pesticides, water, and energy while their farms maintain productivity.
- II. **Climate Change:** Describe farming techniques that can also serve as a source for climate change mitigation and how farms can be prepared for more frequent severe weather events.
- III. **Pollinators and Pests:** Present ways farmers can enhance pollinator populations and utilize pollinators to the farmers’ benefit, while also building resilience to changing pests in their management systems.
- IV. **Utilize New Technologies:** Demonstrate available technologies (drones, GIS, precision ag, biotech, etc.) that farmers might utilize to increase production and decrease negative impacts of agriculture.
- V. **Economic Sustainability:** Describe how farmers can remain economically viable while implementing these new strategies, as outlined in Tasks I-IV.

While one agricultural practice might address multiple tasks, please describe that practice while addressing the solution for each. You may cross-reference practices that have multiple benefits during several parts of the presentation.

Incorporate/cite at least three (3) spoken, relevant, and reputable references as you present, such as a formal publication or information provided in the 2019 Current Issue resources.

#### Examples of references:

“According to \_\_\_\_\_’s publication entitled \_\_\_\_\_, [fact that supports scenario].”

“Research from [organization/agency/etc.] outlined in their article \_\_\_\_\_, suggests [fact that supports scenario].”

“An article entitled \_\_\_\_\_, on \_\_\_\_\_’s website, says [fact that supports scenario].”