Producers’ Roles

in the

U.S. Plant Biosecurity Initiative
Question:

Can you list some of the key elements contained in the U.S. plant biosecurity initiative?
Answer: The key elements of the U.S. plant biosecurity initiative are . . .

1. Producers’ preparedness, response, recovery, and mitigation efforts
2. Multiple strategies for crop protection
3. Rapid and accurate diagnosis of suspected problems
4. Rapid response and recovery efforts when problems are confirmed
5. Overall coordinated, comprehensive national preparedness, response, recovery, and mitigation efforts
1. Producers’ preparedness, response, recovery, and mitigation efforts

2. Multiple strategies for crop protection

3. Rapid and accurate diagnosis of suspected problems

4. Rapid response and recovery efforts when problems are confirmed

5. Overall coordinated, comprehensive national preparedness, response, recovery, and mitigation efforts
As you recall, individuals involved in agriculture must be engaged in numerous plant biosecurity activities:

- Preparedness
- Response
- Mitigation
- Recovery
At the hub of plant biosecurity management activities is the producer . . .
...who works with numerous other individuals throughout every phase of the model.
Preparedness: Producers’ activities that help prepare for an appropriate response to a potential biosecurity hazard or problem.
Producers’ roles – continued:

- Preparedness
- Response
- Recovery
- Mitigation

**Response:** Producers’ timely action taken in response to the discovery of a potential plant biosecurity problem.
Producers’ roles – continued:

**Recovery**: Producers’ efforts to return the farmstead and local area to normal operations after a plant biosecurity event has been effectively contained and controlled.
Mitigation: Producers’ activities to eliminate plant biosecurity risks and/or reduce the potential impact of a confirmed plant biosecurity problem.
Key elements of initiative – part 2

1. Producers’ preparedness, response, recovery, and mitigation efforts

2. **Multiple strategies for crop protection**

3. Rapid and accurate diagnosis of suspected problems

4. Rapid response and recovery efforts when problems are confirmed

5. Coordinated, comprehensive national preparedness, response, recovery, and mitigation efforts
Protection and Control Strategies

Depending on the plant pest or pathogen, producer strategies to prevent the spread of disease might include:

• Field, orchard, and vineyard quarantines
• Fungicide treatments
• Biological control such as insects, pathogens, and/or nematodes
• Destroy infected fields, orchards, and vineyards
• Disinfect equipment and storage facilities
Emerging Crop Protection Strategies

*In the future, producers may also be able to...*

- Implement novel strategies for disease resistance
- Plant trees, vines, and crops bred for resistance
- Obtain plants that have been genetically manipulated for natural resistance genes
- Install sophisticated, reliable, particle detection technologies in fields
Key elements of initiative – part 3

1. Producers’ preparedness, response, recovery, and mitigation efforts
2. Multiple strategies for crop protection
3. Rapid and accurate diagnosis of suspected problems
4. Rapid response and recovery efforts when problems are confirmed
5. Overall coordinated, comprehensive national preparedness, response, recovery, and mitigation efforts
Question:

Do you know what network has been established for rapid and accurate diagnoses of producers’ suspected plant biosecurity problems?
The National Plant Diagnostics Network (NPDN)

- Western Region
  - Kansas State University
- Great Plains Region
- North-Central Region
  - Michigan State University
- Northeastern Region
  - Cornell University
- University of California Davis
- Southern Region
  - University of Florida
1. Producers’ preparedness, response, recovery, and mitigation efforts

2. Multiple strategies for crop protection

3. Rapid and accurate diagnosis of suspected problems

4. **Rapid response and recovery efforts when problems are confirmed**

5. Overall coordinated, comprehensive national preparedness, response, recovery, and mitigation efforts
In order to assure rapid response and recovery, who should producers consult for guidance on confirmed plant biosecurity problems?
Answer:

Their local (county/parish) or regional Extension professional for agriculture and/or natural resources
Key elements of initiative – part 5

1. Producers’ preparedness, response, recovery, and mitigation efforts
2. Multiple strategies for crop protection
3. Rapid and accurate diagnosis of suspected problems
4. Rapid response and recovery efforts when problems are confirmed
5. Overall coordinated, comprehensive national preparedness, response, recovery, and mitigation efforts
Question:

What state and federal agencies provide support to Extension professionals in their efforts to educate producers about plant biosecurity preparedness, response, recovery, and mitigation efforts?
Answers:

- National Plant Diagnostics Network
- Animal and Plant Health Inspection Service
- Extension Disaster Education Network
- State Land Grant Universities
- Integrated Pest Management Program
  - Regional Pest Management Centers
- . . . and others
For your information . . .

In subsequent lessons you will have an opportunity to learn more about the National Plant Diagnostic Network and other key agencies involved in homeland security and biosecurity efforts.
For your information . . .

If you would like to determine what you have remembered about this presentation, proceed to the Quick Quiz. Remember, this is a self-test for your learning purposes only. Your Quick Quiz score will not be recorded.

Now return to Lesson 2, Teaching Scenario 2
References


*Biosecurity Who is Responsible?* Retrieved from the University of Tennessee at Knoxville: [www.utextension.utk.edu/publications/spfiles/SP604.pdf](http://www.utextension.utk.edu/publications/spfiles/SP604.pdf)