The Terrorist Threat to Global Agriculture, Food and Water Supplies: What can we do to insure an ongoing and safe supply of food and water?

Instructors: Amy E. Vinturella, M.S., Sc.D., and Assaf Abdelghani, ScD, MSPH

This lecture series will compare and contrast past and contemporary examples of domestic and global terrorist attacks on agriculture, food and water systems in order to instill in the student an appreciation for the serious public health challenges posed from such attacks. We will consider the use of microorganisms, radiation, and chemicals to inflict damage on plants, animals, ready-to-eat and fresh food supplies, water sources, public health, and public morale. In addition, we will review laws, regulations and organizations that are used to protect U.S. populations from such attacks. The topics covered in this course include:

Learning Objectives
Module 1, Part 1. Background and Terminology
- Define and describe key terminology and acronyms encountered throughout this lecture series
Module 1, Part 2. Introduction to Chemical, Biological, and Radiological Weapons
- Define chemical, biological and radiological agents
- Describe how they are used as instruments of terrorism
Module 2, Part 1. Introduction to Agroterrorism
- Define the term “agroterrorism”
- Give historical examples of agroterrorism, including agents employed, methods of agent delivery, and ultimate impacts on target plants and animals
Module 2, Part 2. Biological Attacks against Agricultural Resources
- Identify commonly available plant and animal infectious agents that terrorists would most likely employ, including epizootic organisms that can be transmitted to humans
Module 2, Part 3. Chemical Attacks against Agricultural Resources
- Identify commonly available chemical agents that terrorists would most likely employ
Module 3, Food Safety
- Identify the most likely chemicals/biologicals to be used by terrorists to contaminate food sources
- Identify the possible points of contamination of food sources by terrorists
Module 4, Part 1. Waterborne CBR Contamination
- Contrast overt and covert terrorist activity on water systems
- Provide a background of the use of water as a medium for terrorist activity
- Identify the possible points of contamination of community-based water systems in acts of terrorism
- Identify the most likely contaminants to be used in a terrorist attack against a municipal water system (chemical, biological and radiological)
- Identify potential signs and symptoms of acute/chronic chemical exposure in the human population
Module 4, Part 2. Water Protection and Regulations
- Describe laws enacted to protect community water systems
- Enumerate the agencies responsible for insuring the safety and security of water systems

Module 5, CBR Hazard Assessment and Threat Communication
- Become familiar with organizations that protect food, water, agriculture
- Explain methods of monitoring for and evaluation of these media of attack

Competencies
- Recognize unusual events that might indicate an emergency and describe appropriate action
- Apply creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and evaluate effectiveness of all actions taken

* Bioterrorism and Emergency Readiness

To register for this course visit us at
http://lms.southcentralpartnership.org/scphp