

## LESSON 11: Confined Spaces in Agriculture

- A. Personal case history video
- B. What is an agricultural confined space?
  1. Definition/OSHA/practical
  2. Permit-required confined space
  3. If you need to use your hands, it's a confined space
- C. Hazards related to agricultural confined space
  1. Asphyxiation
  2. Suffocation
  3. Entrapments
  4. Engulfments
  5. Entanglements
  6. Falls
  7. Electrocutions
  8. Drowning
  9. Respiratory disease
- D. Type of grain and feed storage
  1. On-farm grain storage
  2. Commercial grain storage
  3. Forage silos
  4. Bunk silos
  5. Oxygen – limited silos
- E. Gases found in silos
  1. Nitrogen dioxide
  2. Nitrous oxide
  3. Carbon dioxide
- F. Types of manure storage facilities
  1. Above ground tanks
  2. Below ground pits
  3. Lagoons
- G. Gases found in manure storage facilities
  1. Hydrogen sulfide
  2. Ammonia
  3. Methane
  4. Carbon dioxide
  5. Carbon monoxide
- H. Other agricultural confined spaces
  1. Grain transport vehicles
  2. Agricultural equipment
  3. Sewage and septic systems
  4. Liquid storage
  5. In-ground structures
  6. Food storage/environmentally controlled structures
- I. Legal requirements
  1. HOOA restrictions
  2. OSHA regulations
  3. Worker rights

