Types of Foam Equipment
• Compressed Air Foam Systems (CAFS)
• Foam Blower
• Foam Generator
• Nozzle Systems
Estimated requirements

- **Time:** 2 - 3 hours
- **Personnel:** 2 in, 1 out
- **Water:** ~23,000 L
- **Foam:** 230 L
- **Increase litter moisture** (29 → 36%)
- **Availability**
  - Existing fire services
  - Skid units
  - Industry owned response team

**Compressed Air Foam**
• Poultry specific CAFS
  – Rowe
  – 70 CFM compressor
  – 150 GPM @ 100 PSI pump
  – 40 hp gasoline motor
  – Variable foam proportioning

Commercial CAFS for Poultry
• **Time:** 3 - 4 hours
• **Personnel:** 2 man crew
• **Water:** ~20,000 L
• **Foam:** 375 L
• **Medium expansion**
  – 50:1
• **Availability**
  – Limited
- Foam generators use a water motor
  - Fan draws ambient air
  - High expansion
- Expansion ratio
  - Water flow rate essential for fan speed

Two sample water powered foam generators
• Kifco AviGuard
• Generator Cart
  – Pulled through house
• Trailer
  – Outside the house
• Variable rate injection pump
  – Adjustable
  – Matches foam to water
  – Typically use 1%
• Medium expansion
  – 115:1 – 140:1
- **Multiple types available**
  - Single generator
  - Dual generator
  - Skid mounted unit
- **Dual Unit**
  - Time: 20 minutes
  - Personnel: 1 in, 1 out
  - Larger houses
  - Water: ~15,000 L
• Smaller skid mounted system
  – AV-AA3 single generator
  – AV-ST3 dual generator
• Two gasoline engines
  – 26 kW booster pump
  – Automatic hose retraction motor
• Variable rate injection pump
• 7.5 cm x 200 m polyethylene hose.
• Nozzle key to system
• Nozzle increases air flow ratio versus standard fire nozzle
  – Air inlet
  – Mesh screen
• Nozzle system
  – Nozzle attached to hand hose
  – Hose moved to apply foam
  – Pump stays outside
  – Water source outside
• PTO or gasoline driven pump
• Premixed water and foam
  – Dump tank
• Medium expansion
  – Nozzle characteristics to generate foam
• Personnel
  – 2 nozzle operators
  – 2 hose assistants
  – 1 pump operator
• Water: ~30,000 L
• Foam: 1%
• Simple to operate
• Smaller trailer
  – <1350 kg
• Single gasoline engine
  – 760 L/min
  – 900 kPA
  – Darley 2-1/2AGE 31 BS LIQ
• Spumifer AG-1 nozzle
  – Medium expansion
  – Series of screens
• Turn key response from Gardner-ES
  – Entire response rather than just equipment
• Large nozzles rather than generators
  – Higher capacity Spumifier
  – Low friction hose on roll (700’)
  – Two section of lay flat hoses (50’)