





Temporary Sheltering

Livestock



Situations

- Natural Disasters
 - Displacement
 - Evacuation
- Animal Health Emergency
 - In-transit

Just In Time Training 2010 Temporary Sheltering: Livestock

Assessment and Planning

- Locations
- Animals
 - Infected or non-infected animals
 - Food and water requirements
 - Species/housing requirements
- Waste management
- Personnel
 - Security
- Length of time

Just In Time Training 2010 Temporary Sheltering: Livestock


FACILITIES

- Containment
- Setup
- Waste Management
- Special Needs

Just In Time Training 2010 Temporary Sheltering: Livestock

Shelter Requirements

- Containment
 - Fencing, pens, stalls
 - Check for sharp objects
 - Spacing
- Shelter from elements
 - Wind breaks
 - Shade, fans
 - Warmth
- Ventilation
- Temperature



Just In Time Training 2010 Temporary Sheltering: Livestock

Shelter Requirements

- Bedding
- Waste disposal
- Isolation area for sick animals
- Special needs
 - Dairy cattle
 - Young animals

Just In Time Training 2010 Temporary Sheltering: Livestock

Possible Shelter Sites

- Publicly owned lands
- Fairgrounds
- Abandoned or empty feedlots
- Fenced pastures
 - Climate permitting
- Other buildings
 - Airplane hangers
 - Livestock auction markets
 - Build shelter on a site

Just In Time Training 2010 Temporary Sheltering: Livestock

Supplies

- General Supplies
 - Halters, lead ropes
- Cleaning supplies
 - Shovels, rakes, wheelbarrows
 - Buckets hoses
- Office Supplies
 - Paper, pens, computer
 - Intake, release, identification forms
 - Documentation of labor and supplies

Just In Time Training 2010 Temporary Sheltering: Livestock


Transportation

- All-weather surface road
 - Two lane
 - One way traffic flow
- Unload animals at distance from the shelter
- Vehicles left at shelter should be cleaned and disinfected

Just In Time Training 2010 Temporary Sheltering: Livestock

Housing the Animals

- Animals should be segregated by:
 - Sex
 - By herd or flock
 - By species
 - Mothers and young
 - Pregnant animals
 - Isolate sick animals
 - Appropriate density



Just In Time Training 2010 Temporary Sheltering: Livestock

Waste Management

- Prompt removal of waste
- Daily cleaning of stalls
- Equipment should be cleaned and disinfected after use
- Separate equipment should be used for isolation animals

Just In Time Training 2010 Temporary Sheltering: Livestock

HEALTH

- Food and Water
- Illness and Injury
- Handling

Just In Time Training 2010 Temporary Sheltering: Livestock


Veterinary Care

- Incoming and outgoing animals need to be thoroughly examined
- Isolate incoming animals
- Daily inspections
- Isolate sick animals
- Animal disease recognition information should be posted

Just In Time Training 2010 Temporary Sheltering: Livestock

Handling

- Animal behavior
 - Stress, panic
 - New surroundings
 - Unpredictable
- Proper handling minimizes stress
- Responders with experience
 - Need to know species





Just In Time Training 2010 Temporary Sheltering: Livestock

SPECIES SPECIFIC

Just In Time Training 2010 Temporary Sheltering: Livestock

Cattle


- Food and water
 - Open pasture
 - Grass or baled hay
 - 20-25 lb/day
 - Water
 - 12-15 gallons/day
- Young animals
 - Additional nutritional requirements
- Water consumption will increase in hot weather conditions



Just In Time Training 2010 Temporary Sheltering: Livestock

Small Ruminants


- Food and water
 - Sheltered pasture
 - Windbreaks, shade
 - Food 3-5 pounds hay/day
 - Water ½-1 gallon/day
- Difficult to confine
- Pregnant animals
 - Enhanced shelter
- Dairy breeds will require milking



Just In Time Training 2010 Temporary Sheltering: Livestock

Swine

- Food and water
 - Food
 - 0.5#/100#
 - Water
 - ½-1 gallon/head/day
- Hard surfaces
 - 2.5 sq feet/100# sleeping
 - 5 sq feet/100# general living space
- Heat stress is significant concern



Just In Time Training 2010 Temporary Sheltering: Livestock

Resources

- AVMA Disaster Preparedness and Response Guidebook
 - http://www.avma.org/disaster/emerg_prep_resp_guide.pdf
- Temporary Housing and Care for Livestock and Poultry – Monograph No. 003, Nebraska Department of Agriculture
 - http://www.agr.state.ne.us/homeland/monograph_003.pdf

Just In Time Training 2010 Temporary Sheltering: Livestock



Acknowledgments

Development of this presentation was by the Center for Food Security and Public Health at Iowa State University through funding from the Multi-State Partnership for Security in Agriculture

Authors: Sara Viera, MPH; Glenda Dvorak, DVM, MPH, DACVPM



the Center for Food Security and Public Health
IOWA STATE UNIVERSITY