

Temporary Sheltering: Livestock

The temporary sheltering of livestock species may be a necessary action following an animal health emergency situation. Some practical considerations that must be made when dealing with the sheltering of livestock include shelter location and type, food, water, and shelter requirements, transportation details, and sanitation consideration.

Assessment and Planning

- Location
 - Possible shelter sites:
 - Publicly owned lands
 - Fairgrounds
 - Abandoned or empty feedlots
 - Fenced pastures (climate permitting)
 - Other Buildings such as airplane hangars, livestock auction markets, or building a shelter on a site
- Animals
 - How many?
 - Infected or not infected?
 - Food and water requirements
 - Housing requirements
- Food and water
- Waste management
- Personnel
 - Animal handling and care
 - Biosecurity
 - Site security
- Length of time

Shelter Requirements

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

Supplies Needed

- **General Supplies**– halters, lead ropes, blankets, bedding, wheelbarrows, rakes, pitchforks, feed, hoses, disinfectant, bleach, buckets
- **Office Supplies**– release and identification forms, paper, pens, computers
- **Veterinary Supplies**– medications, vaccines, bandages, leg wraps, IV fluids
- Waste disposal
 - Prompt removal of waste
 - Daily cleaning of stalls
 - Clean and disinfect equipment after use
 - Use dedicated equipment for isolation areas
- Isolation area for sick animals
- Special needs
 - Dairy cattle
 - Young animals

Transportation

- Unload animals at a reasonable distance from the shelter
- Establishing a one way flow of traffic can aid in the “check-in” and unloading process
- Vehicles should be cleaned and disinfected

Housing the Animals

- To reduce stress and keep the animals safe, they should be segregated:
 - Sex
 - By herd or flock
 - By species
 - Mothers and young
 - Pregnant animals
 - Isolate sick animals
 - Appropriate density
- **Housing Livestock**
 - Can be housed in outside pens if climate allows
 - Animals need ample room in holding pens
 - Do not mix animals from different herds
 - Bulls and Stallions should be housed separately
 - Trailers should allow adequate room to stand

➤ Handling

- Stressed animals can have unpredictable actions that are harmful not only to the individual animal but also to others in the group as well as handlers or responders
- Proper handling minimizes stress
- Animal handlers or responders moving animals should be experienced in handling the species they are working with

➤ Veterinary Care

- Examine animals coming in and going out of the shelter
- Daily inspections while in the shelter
- Isolate sick animals
- Provide disease information to caretakers

Species Specific

Cattle

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

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

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

Veterinary Care and Involvement

- Incoming and outgoing animals need to be thoroughly examined
 - Ideally, incoming animals should be isolated from others
 - Daily inspections of the animals in the shelter
 - Animal disease recognition form should be posted
- Isolation of Sick Animals
 - A separate area should be set up for sick or ill animals
 - Animals showing illness should immediately be examined by a veterinarian
 - Any confirmed diseases should be reported to the Incident Command Structure

Additional 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
- Emergency Off-Farm Housing for Cattle, Ontario Ministry of Agriculture Food & Rural Affairs
<http://www.omaf.gov.on.ca/english/livestock/beef/news/vbn0510a4.htm>

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Livestock Daily Feed and Water Requirements

ANIMALS	WATER/DAY	FEED/DAY
DAIRY COWS		
IN PRODUCTION	9 GALLONS SUMMER	20 POUNDS HAY
	7 GALLONS WINTER	
DRY COWS	9 GALLONS SUMMER	20 POUNDS HAY
	7 GALLONS WINTER	
WEANING COWS	6 GALLONS SUMMER	8-12 POUNDS HAY
	3 GALLONS WINTER	
PREGNANT	7 GALLONS SUMMER	10-15 POUNDS LEGUME HAY
	6 GALLONS WINTER	
COW WITH CALF	9 GALLONS SUMMER	12-18 POUNDS LEGUME HAY
	8 GALLONS WINTER	
CALF (400 POUNDS)	6 GALLONS SUMMER	8-12 POUNDS LEGUME HAY
	4 GALLONS WINTER	
SWINE		
BROOD SOW WITH LITTER	4 GALLONS SUMMER	8 POUNDS GRAIN
	3 GALLONS WINTER	
BROOD SOW (PREGNANT)	1-2 GALLONS SUMMER	2 POUNDS GRAIN
	1 GALLON WINTER	
150 POUND GILT OR BOAR	1 GALLON	3 POUNDS GRAIN
SHEEP		
EWE WITH LAMB	1 GALLON	5 POUNDS HAY
EWE, DRY	3 QUARTS	3 POUNDS HAY
WEANING LAMB	2 QUARTS	3 POUNDS HAY
POULTRY		
LAYERS	5 GALLONS/100 BIRDS	17 POUNDS/100 BIRDS
BROILERS	5 GALLONS/100 BIRDS	10 POUNDS/100 BIRDS
TURKEYS	12 GALLONS/100 BIRDS	40 POUNDS/100 BIRDS
HORSES		
ALL BREEDS	5 GALLONS/1000 POUNDS	20 POUNDS HAY/1000 POUNDS

Source: Preparing the Farm and Farm Animals for Disaster. <http://www.nal.usda.gov/awic/pubs/IACUC/dis.htm>

Just-In-Time training materials can be found at <http://www.cfsph.iastate.edu/Emergency-Response/just-in-time-training.php>