

Unit D

Animal Management

Lesson 1

Meeting the Housing Needs of Livestock

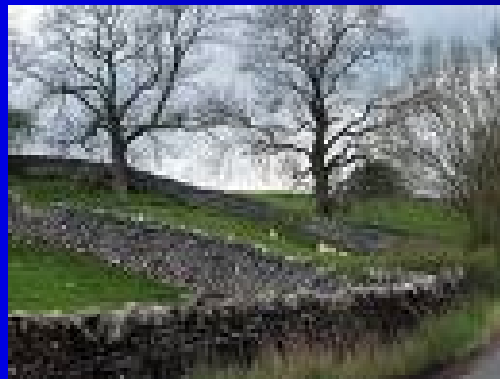
Terms

- Cold housing
- Flat milking barns
- Intensive grazing
- Chicken Coops
- Warm housing

What are the housing needs of cattle?

- I. Individual needs for specific facilities will depend on what production system you are in.
 - A. The first thing to consider when raising cattle is the location of the housing facility. You must make sure you have access to water, grazing and all other necessary amenities.

- B. You should build facilities where they can be expanded or changed to meet future needs.
- C. If there is a need for fences, they need to be sturdy to keep animals in.
 - ❖ In some areas of the world fences may be electric, wooden, vinyl, or barbed wire. Stones gathered from the field have also been used for fences. Gates should be in useful and accessible areas.
- D. No matter what kind of production system you have, water must be available for all animals.



E. Feeders need to be located where cattle have access to salt and mineral.



- ❖ You need enough feeding space for all animals to eat at the same time.
- ❖ If all animals cannot eat, they may become aggressive or some may go without food.

F. Storage of feed is necessary to keep it clean and have minimal waste.

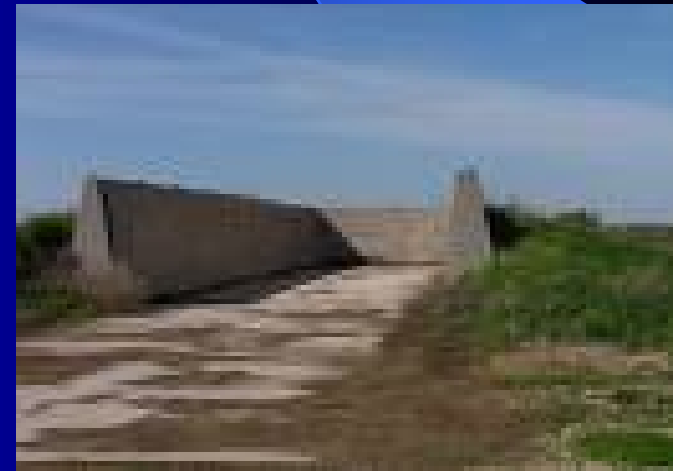
- ❖ Large cattle operations will use upright silos, feed rooms, trench silos and metal storage bins depending on the type of feed they are using to feed the cattle they are raising.



Concrete Silos



Metal Bins



Trench Silo

G. You will also need equipment to work with your animals.

- ❖ It is much safer for both the producer and the cattle if there is some type of cattle chute to hold the animal for tagging, vaccinations and other treatments and a loading chute for helping the cattle into a truck for hauling.

Cattle Chute



Holding Pen Connected
to Cattle Chute



Loading Chute



H. Buildings should protect cattle from both heat and cold.

Placement should consider prevailing winds, accessibility to water, and space requirements.



What are the housing needs of Dairy Cattle?

II. Facilities and equipment are very important to the efficiency of your dairy operation. Housing, milking systems, feeding equipment, and manure facilities are the most important factors to consider.

A. Housing protects both the animals and humans.

- ❖ Since large commercial dairy operations are very labor intensive it is necessary to also consider your needs for a comfortable environment.

1. ***Cold housing*** is the term used for a building that is not heated and kept cold during the winter.

- ❖ Cold housing is usually loose housing in the form of a free stall building.



2. Warm housing is the term used for a building that is heated and kept warm during the winter.

- ❖ Warm housing can also be a free stall, but it is insulated.
- ❖ Warm housing also refers to enclosed barns with tie stalls.
- ❖ Calf hutches are used for young calves and open sheds are commonly found housing young stock or dry cows.
- ❖ Dairy animals on open pasture should be protected from extreme heat, extreme cold, and high winds.

Warm Housing



Calf Hutches



B. Milking facilities are essential to dairy production.

1. ***Flat milking barns*** are barns where dairy are milked in their stall.
2. ***Milking parlors*** are concrete floored structures where cows come in to be milked.
 - ❖ Milking parlors are built to increase efficiency, decrease labor, and improve working conditions and sanitation.

Flat Milking Barn



Milking Equipment

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Parlor



c. Feeding systems are important to dairy operations.

1. Efficiency, cost, and location is important when considering where to store feed.
2. Many types of feed must be stored including corn, silage, haylage, dry hay, straw, minerals, and grains.
3. Silage bags, upright silos, metal bins, and hay mows are a few examples of where feed can be stored.

Round and Square Bales



Square Bales of Hay



Silage Bags



4. *Intensive grazing* is when cows are on pasture as graze for 24–48 hours and are then moved to another pasture.

- ❖ It is labor intensive, but requires less storage of feed.
- ❖ Feeding carts, track feeders, computerized feeders, and other modern techniques help make feeding dairy easier and less time consuming.



D. Since dairy produce 8 percent of their body weight in waste every day, manure handling facilities are extremely important to the success of the operation.

❖ All manure handling systems should serve three functions:

1. Keep animals clean
2. Provide labor-friendly collection
3. Dispose of waste in a responsible manner

- E. There are two types of handling systems that are named for the type of manure they handle:
1. Solid manure systems
 2. Liquid manure systems
- ❖ Both have advantages and disadvantages but the largest difference is that liquid systems are more expensive but are also more efficient.

Spreading of Solid
Manure



Liquid Manure System



What are the housing needs of Sheep and Goats?

III. Both Sheep and Goats are hardy animals, they don't require as much protection from the environment as other animals. Sheep and goats are less expensive to raise because they do not require costly shelters. However, there are still many things that you will need to raise them.



- A. Housing for goats and sheep will vary with operations, but barns are usually built so they are open to the south.
- ❖ You will need bedding, land for grazing and water in accessible areas.
 - ❖ Free stall facilities are built for does that are milking.
 - ❖ Loose or open housing is used for kids and yearlings.
 - ❖ Horns may need to be removed from those goats kept in close confinement.

Goat Milking Parlor



Open Shelter



- B. Fencing needs to be 1.5 meters or higher and have only 10-13 centimeters between strands for sheep and goats. When raising goats and sheep, it is more important to focus on keeping predators out than keeping your animals in.



c. Depending on the operation, a corral loading chute system, shearing equipment and a sheep/goat chair that can be used when trimming hooves or for pregnancy testing may be useful.

D. Always make sure you have enough space for all animals to be comfortable.

Shears



Sheep/Goat Chair



Corral Loading Chute



What are the housing needs of Poultry?

IV. Housing for poultry will be determined by the type of poultry you have and the amount of space available in your area. Existing structures and building may be able to be converted into housing for poultry. Keep these things in mind when providing facilities for poultry.

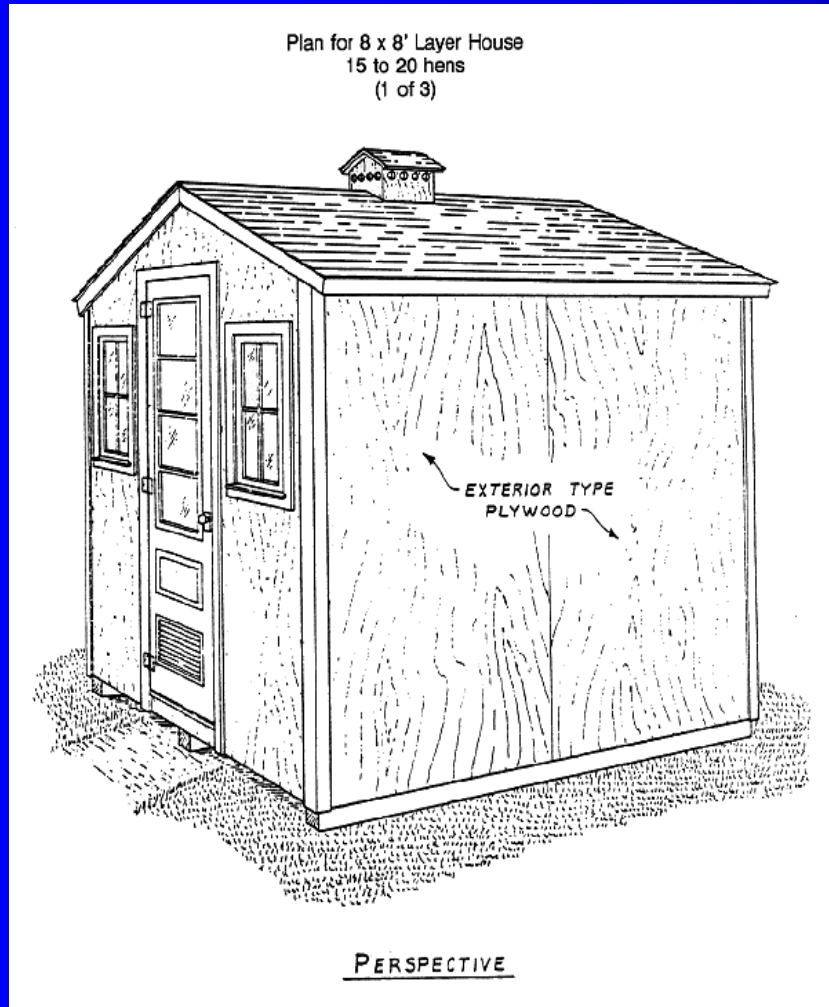
● A. Protection

1. A good poultry house protects the birds from the elements (weather), predators, injury and theft. Poultry require a dry, draft-free house. This can be accomplished by building a relatively draft free house with windows and/or doors which can be opened for ventilation when necessary. Build the coop on high, well-drained areas. This prevents prolonged dampness and water saturation of the floor of the coop and outside runs. Face the front of the coop, the windows and outside run to the south which allows the sun to warm and dry the coop and soil. Allowing an adequate level of space per bird also helps keep the humidity level in the coop to a minimum.



2. Keeping poultry totally confined to together with fence and covered runs are your best protection from predators. If you are building a new facility, consider laying a concrete floor, and start the wall with one or two concrete blocks. This prevents rodents, snakes, and predators from digging under the walls and the floors. Windows and doors must be securely covered with heavy-gauge mesh wire or screening when opened.
3. With outside runs, bury the wire along the pen border at least 30 centimeters deep, and toe the fence outward about 15 centimeters. This stops most predators from digging under the fence. Animals always dig at the base of a fence. By toeing the fence outward and burying it, the predator digs down right into more fencing. To prevent problems with hawks and owls, cover your outside runs with mesh wire or netting. A good ground cover of millet, broomcorn, sorghum, lucerne or shaftal or other tall leafy vegetation also provides cover for the birds to hide under.

Examples of Chicken Houses



B. Adequate Space:

1. Birds need adequate space for movement and exercise as well as areas to nest and roost. Space requirements vary with the type of bird you raise.

❖ **Nests:** Always provide at least one nest for every 4-5 females in the flock.



C. Easy Access to Feed and Water:

1. Feeders and waters should be placed conveniently throughout the pen for birds' access. Place the bottom of the waterers and top lip of the feeders at the birds' back height. This will keep the feed and water clean and prevent wastage.
2. Small birds like pigeons, bantams and quail, only require 1 linear inch/bird of feeder and water space and large birds require 2-3 linear inches/bird.
3. When possible, place the waterer in the outside runs, especially for waterfowl. This helps to keep the humidity level lower inside the coop.



D. Source of Light:

1. Windows placed on the southside of the coop will also be a good source of light and warmth in winter and a good source of ventilation in summer.

Interior of a Commercial Broiler Chicken House



E. Ventilation:

1. Ample air movement without a draft is essential. Fresh air brings in oxygen while excess moisture, ammonia or carbon dioxide are removed as the stale air moves out of the house. Dampness and ammonia build-up are a sign that there is not enough ventilation. For small coops windows or vents on one side of the house usually provide plenty of ventilation. Failure to insulate or ventilate properly causes moisture to accumulate on the walls and ceiling in cool weather. Poultry can handle cold very well if they are dry. However, cool and humid conditions can create many health problems. Locate openings on the side away from prevailing winds. The south or east side is usually best.

Ventilation fans on large commercial poultry building.



Review/Summary

1. Describe housing needs for cattle.
2. List and explain housing needs of sheep and goats.
3. Discuss housing needs for poultry.