

WINTER SHELTER



by Emily Clement, MPA, LVT

While a dense tree line can provide goats and sheep protection from the sun and rain in warmer months, it is not adequate shelter for the winter, in our area. Healthy adult goats and sheep are able to maintain a constant body temperature throughout the cold months as long as good nutrients are available and shelter is provided for cover from the inclement elements. Sheltering needs will vary from one herd to the next, due to the type and breed of the animals present. Though fiber, meat, and dairy animals may have slightly different housing needs; they all need shelter from the cold, wind, and wetness of winter. It must be easily accessible for you to manage daily maintenance checks, clean bedding, and handle the water and feed needs of the animals, if not feeding and watering outside of the shelter.

Winter shelter does not need to be elaborate, by any means. A three or four sided structure, with a roof of some sort, is sufficient as long as it faces away from the prevailing wind and is easily accessible to the animals, throughout the day. A variety of

shelter structures options are commercially available, as well as, modest plans for do-it-yourself can be found, online. Some designs are portable and on sleds, easily hooked up to and pulled with a utility vehicle. Sleds aid in moving the shelter from field to field, or to a different location, reducing the wear and tear upon the land. The shelter needs to be clean, dry, and as draft free as possible. Adding insulation, in the form of foam and fiberglass, is not recommended. Tarps and/or ply wood can reduce drafts, without much additional expense. While the need to make shelters as draft-free as possible exists, so does the need to ventilate. Decreased ventilation as a result of over insulation can wreak havoc on the health of the animals we intended to be protected.

Considerations inside the shelter

The space needed for each animal should be considered when deciding what type of shelter you can provide for your animals' optimum health. Generally, 8 ft.2 for each full-sized adult, and 6 ft.2 for each kid or lamb, is sufficient for winter shelter space (University of Arkansas Cooperative Extension Service, 2014). Realize they will not stay in their "assigned space" and will

bunch up for warming purposes. The increase in density of animals utilizing one space, not only creates heat that benefits the animals, but moisture and vapor that are cause for some health concerns.

Bedding

Animals clustering together in the colder weather, creates densely soiled areas within the shelter. These areas quickly become a source of elevated ammonia levels. Ammonia build quickly, from urine and decomposing manure. These fumes irritate the respiratory tract of animals, increasing their risk of contracting pneumonia. High ammonia levels can also be toxic to animals and people. If the stench is high enough to reach the human nose, imagine the pungency and burn at their level. To avoid ammonia build up, check for odor frequently, clean regularly, and insure good ventilation.

Clean, dry, bedding is important to the warmth, comfort, and overall health of your animals in winter. Inside the shelter should stay as dry as possible. Straw or woodchips are a good bedding choice for insulating against the ground temperature and moisture, as well as absorbing urine. Using

a bedding material eases cleanout tasks and increases the sanitation of the area. The number of animals, size of structure, and weather will dictate the frequency of bedding changes and maintenance time required. Do not to use old moldy hay as bedding; it increases the risk of disease as they nibble on their surroundings.

Heat Lamps

The use of heat lamps comes with great risk and are not generally necessary, especially with adults. Young stock can benefit from heat lamps until they are able to regulate their own body temperature. Animals are known to: chew cords risking electrocution, burn themselves on bulbs, knock lamps loose to fall in hay, bedding, or water. A lamp hanging too low can catch bedding materials and or hay on fire. Safety heat lamps, specifically for livestock are available commercially. They have features such as domed light covers and wire coiled around the electrical cord. Your individual situation may dictate whether or not the risk of having them, outweighs the benefits. See Heat Lamp Safety Tips (Light, 2016).



Water

Goats, nor sheep, can drink ice. Water must be accessible at all times for optimal health and production. Heated waters are ideal, however not always practical if you do not have an electrical source. If water is frozen, you must break and remove the ice, at least twice daily. This allows for the necessary water intake needed for the animals to sustain themselves, biologically. Keep in mind, as the water temperature cools, the animal's intake decreases (Rob Hawk, 2014). Warm the water, if possible, to encourage the needed intake, especially for the animals in advanced production. Electricity and waterlines, with frost free hydrants, make providing winter care to the animals much easier. Not every situation has these luxuries, and must make adjustments by hauling water, running

Heat Lamp Safety Tips

1. Clean up dust and cobwebs.
2. Keep wires out of reach.
3. Double secure the lamp.
4. Never put a water bucket under a heat lamp.
5. Use heat lamps ONLY with cages.
6. Keep lamps away for bedding.
7. Check lamps frequently for frayed wires.

(Light, 2016)



Winter Shelter Checklist

- At least 3 sided structure
- Roof- not leaking
- Bedding (straw or wood chips)
- Safe electrical access if possible
- Access to water, hoses, hauling or transport containers
- Enough space per animal
- Insulation
- Ventilation
- Windbreak
- Draft free
- Easy to clean
- Easy for animal to access during inclement weather

(then draining) hoses, breaking and clearing ice, then refilling. Keep in mind, without adequate water consumption, digestion is compromised. This increases risks of dehydration, urinary calculi, and inefficient use of feedstuff for energy and gain. The nutritional requirements of goats and sheep during the winter months are beyond the scope of this article, however good, research- based information can be found (Kelley please reference Hoofprints articles from Dr. Van Saun).

Other Considerations

Advanced production stages

A sturdy and accessible shelter is imperative when animals are in an advance production states such as: pregnancy, lactation, or newly born, because they are undergoing increased physical and metabolic pressures in addition to the ones brought on by inclement weather. Their need for assistance regulating their body temperature with a draft free shelter, along with plenty of drinkable water and nutritious feed, cannot be overlooked. Kids and lambs born in the winter and early spring need extra care. Neonates cannot regulate their body temperature by themselves for several weeks. A draft-free shelter, with or without heat lamps, will give the young and dam the best chance at surviving the elements.

Safety

When using a portable shelter; do not leave the old bedding and hay behind for animals to access. This decomposing materials are a perfect source of listeria (Kelley to add Listeriosis reference link for Hoofprints article). Visually check the inside of the shelter daily to make sure the animals that are in there can get up, and are not showing signs of illness. Do not assume they are just cold and hunkered down. Do not be alarmed if you see animals out of the shelter laying down or roaming around during the day in the cooler weather. Having the access to the wind-break and cover from precipitation when they need it, is key.

Disease Prevention

The precipitation paired with the increase of animal bodies in a decreased space, can be recipe for several serious health risks. Moist bedding, not only loses its effectiveness in keeping animals warm when it is wet, but it can also

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harbor pathogens that cause debilitating disease. The increased risk of respiratory disease previously discussed should not be overlooked. In addition, foot rot, mastitis, and numerous other bacterial, viral, and parasitic diseases can take hold in these conditions and be devastating to your animals. Louse populations increase in winter and can vary dependent upon the condition of the animals. They can easily gain a foothold in winter month's more crowded conditions. The stress brought on by lower nutrition and more bodies packed smaller spaces greatly increases the chances that if one is affected, they will all be affected. These external parasites cause irritation, itching, discomfort, hair loss, and anemia. Check you animals' coats frequently and ensure frequent bedding changes.

Winter management is no small undertaking. It requires planning, and resources, to ensure good nutrition, access to clean and ice-free water, and shelter that is free of drafts. Whether you have access to, or can build the Taj Mahal of shelters, or are on less than a shoestring budget, you can provide a safe and protective shelter for your animals this winter. If you have any questions or concerns about your particular

situation, feel free to reach out to me at: emily.clement@kysu.edu.

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References

eXtension.org. (2019, August 14). Care of goats in severe winter weather. Retrieved from Goats.eXtension.org: <https://goats.extension.org/care-of-goats-in-severe-winter-weather/>

Light, K. (2016, January 22). Heat Lamp Safety Tips. Retrieved from Homesteading.com: <https://homesteading.com/heat-lamp-safety-tips/>

Rick Machen, F. C. (2017, October). A Haemonchus contortus Management Plan for Sheep and Goats in Texas. Retrieved from Texas A&M AgriLife Extension: <https://1g92472cqoiu485bu53vpy6c->

wpengine.netdna-ssl.com/wp-content/uploads/sites/14/2012/04/goats_authorproof2.pdf

Rob Hawk, I. (2014, March 28). Winter Care of Goats and Sheep. Retrieved from NC Cooperative Extension: <https://jackson.ces.ncsu.edu/2012/12/winter-care-of-goats-and-sheep-2/>

Talley, J. (2016, October). External Parasites of Goats. Retrieved from Oklahoma Cooperative Extension Service: <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-5175/EPP-7019web.pdf>

University of Arkansas Cooperative Extension Service. (2014, September 26). Winter shelter for sheep and goats. Retrieved from University of Arkansas Division of Agriculture, Research and Extension: <https://www.uaex.edu/media-resources/news/september2014/09-26-2014-UAPB-Winter-Shelters.aspx>

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