

Outwintering Dairy Cattle : Benefits and Cautions

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Outwintering continues to increase in popularity. Keeping cows in protected areas or on outdoor packs without a barn has been an effective and low cost housing system. But in a winter like we've been experiencing with bitter wind chills, heavy snowfalls, and January rains there can be problems with the system unless contingency plans are in place. Weeks and months of good experience can be undone by a single storm.

There are several obvious benefits to outwintering. High building costs are avoided, diseases associated with close confinement and poor ventilation are avoided, animals are generally clean, bedding costs are reduced, feeding may be simplified, herd size may be adjusted easily, etc. But a herd manager must be prepared to respond to unexpected conditions quickly. Experience with outwintering dairy animals from 450 lb through the lactating herd at the West Central Research and Outreach Center over the last 10 years has been good, acknowledging the winters have been relatively mild during that period.

Weather Mud is typically a problem in the fall and again in the spring when frost is coming out of a lot. A well bedded, comfortable, pack will minimize the incidence of wet, dirty udders until the mud is 4-5 inches deep. At that point there is little alternative to taking animals out of the lot and moving them across a pasture in daily allocations that enable animals to stay clean and do not cause permanent damage to the turf at any one location. Irish researchers have designed pad lots for wintering in their rainy winter conditions (<http://www.teagasc.ie/research/reports/dairyproduction/5139/eopr-5139.asp>). Cold rainy conditions that reduce the insulation offered by hair are a worse-weather condition. Milking cows will require a pack in cold conditions to provide protection to the udder. The pack should be located in the portion of the lot that has the best wind protection. Frozen teats are not usually a problem if teats are kept clean and dry. Congested udders on fresh heifers are best avoided by managing the calving season to avoid mid December to March when animals are kept on an outdoor pack. A teat dip powder formulated for use during cold weather will also reduce risk of frost bitten teats. Snow creates serious feeding and bedding issues. Feed needs to be located where it is easily accessed for movement and a snow removal plan needs to be developed. Weather that is hazardous for animals also presents dangers for humans. Growing heifers over 400 lb will be clean and comfortable in larger outwintering areas without bedding as long as they can find a break to protect them from wind chill or blizzard conditions and have learned to find safe sites. We found that about 50% as much bedding is required with a long narrow outdoor pack compared to loose housing under a roof.

Nutrition Animals outdoors will require about 15-20% more feed for the season than animals kept in confinement housing. Pregnant heifers outdoors at the West Central Research and Outreach Center gain about 1.5 lb/day during winter when fed 2.5% of body weight of a corn silage and limited grain based diet in a TMR. Allocations need to be as much as 3.0% of body weight as dry matter for 450 lb calves. Allocations for animals within the weight range 1000 – 450 lb are adjusted between 2.50% and 3.00%. Some experienced farmers assert that heifers

can meet their water needs by eating snow, but offering fresh water continuously is a best practice. Animals that go into winter thin will have a difficult time regaining condition during cold weather.

Disease Most outwintered animals maintain good health. Pneumonia and other respiratory problems are few with vaccinated cattle because unconfined areas are well ventilated. If animals are fed on the ground on clean snow or with hay feeders to keep manure out of the hay parasite problems should be few. Wet muddy conditions when feed is contaminated by manure will increase the threat of coccidiosis. Incidence of accidents that lead to lameness or worse will increase with icy raceways, steep-sided bedded packs or deep snow. Cows do not exhibit strong signs of heat when footing is poor.

Best conditions for outwintering:

Provide wind breaks or be prepared to move animals during hazardous weather.

Start the winter season with animals in good condition.

Provide extra feed to meet needs for maintenance and growth or production.

Bed as needed so animals remain clean and comfortable.

Visit experienced farms to gain benefit of their knowledge.