Management Considerations for Outwintered Cattle

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While outwintering systems for cattle are not new to the Upper Midwest, there are a number of practical issues to address before the winter season commences to ensure cattle thrive and cattle welfare and production goals will be met. Because the winter season can vary greatly, farmers must develop outwintering plans flexible enough to manage cattle nutritional and shelter needs despite what Mother Nature dishes out.

There are several positive aspects of outwintering systems mirroring pasture use during the grazing season, including fresh air, exercise, and space for cattle as well as reduced labor, nutrient management, and other input cost benefits for farmers. However, cattle nutritional requirements can increase 15-20+% due to added exposure to cold, wind, and precipitation compared to winter housing systems. So, impacts of these challenges must be weighed against benefits of outwintering.

Age, production stage, and breed origin may all play a role in how any particular cattle group might respond to an outwintering system. In general, young cattle (under 6-8 months) are likely to experience the most stress in severely cold, windy, and/or wet winter conditions. Dairy breeds are generally more susceptible to cold than beef breeds due to thinner hides and less insular fat, as are cattle breeds originating in warmer climates. Lactation stage may also affect cattle's ability to cope with winter weather conditions. However, most cattle acclimated to northern temperate climates can do well if farmers provide some form of shelter from wind and a comfortable bedding area along with consistent supplies of water and winter feed products.

Cattle require a reliable supply of clean water throughout the year for optimum maintenance and production. During the winter months, outwintered cattle may come back to the buildings for water only once per day and often as a group, so a reliable and accessible water source that can adequately handle water intake needs of the herd even during the coldest weather must be available.

To ensure cattle are receiving adequate nutrients from feed sources, test feed and forages and balance rations accordingly. Meet or exceed minimum crude protein needs of cattle to ensure efficient rumen function, and have a flexible feeding plan in place so cattle can increase their energy intake as needed during periods of very cold, windy, and/or wet weather.

Outwintering cattle.
Photo: Arin Crooks, UW-Lancaster Ag Research Station

Bedded pack outdoors.
Photo: David Kammel, UW-Madison

All weather feed pad.
Photo: David Kammel, UW-Madison

Windbreak.
Photo: David Kammel, UW-Madison

Shelter opportunities need not be elaborate and may be temporary or permanent in nature. Examples of permanent shelter might include buildings, woods/shelter belts, solid fences, etc., where cattle have access to the leeward (protected) side away from prevailing winter winds. Ensure there is adequate space for all cattle in a given group to receive sufficient wind protection so that younger, smaller, and/or less dominant cattle do not suffer from exposure. Temporary shelter may also be constructed of bedding and feeding materials such as large round bales, and stacked in a configuration that enables the cattle to access shelter away from prevailing winter winds, as well as allowing the farmer to move bales as needed for later use.

Temporary and permanent shelters can be managed along with bedding packs and winter feeding areas to increase outwintered cattle comfort as well as provide flexibility in management and distribution of manure nutrients from winter cattle congregation sites. While feed may be set out for multiple days to reduce labor, all cattle groups should be observed at least once daily to ensure all cattle are healthy, comfortable, and receiving sufficient feed and water to meet their needs.

A farm management plan also needs to be in place to address "mud" season issues in late fall and early spring when soils are not frozen to minimize cattle damage to pasture swards and reduce cattle health concerns. Winter feeding and bedding sites should not double as calving areas since several organisms causing newborn calf diseases such as scours will survive and multiply quickly in the organic matter of a bedded pack with the cool, damp conditions prevalent in early spring. Cows resting in these areas can pass organisms such as E. coli, cryptosporidium, salmonella, coccidia, and clostridium perfringens directly to newborn offspring. Plan ahead so another pasture or appropriate location is available for a clean calving environment to minimize disease transfer. Outwintered feeding areas and bedding packs should be cleaned up and reseeded as appropriate early in the next grazing season to minimize potential of a fly colonization site forming and to reduce weed potential.

There are a number of resources available to assist farmers in developing outwintering systems that meet their animal husbandry and farm management goals. Links to a number of these resources are available at the University of Wisconsin-Extension Grazing Resources & Research website, http://fyi.uwex.edu/grazres on the Livestock Health and Management on Pasture page.