



# Grass-Fed Beef Initiative Extension Series

Fact Sheet 8 of 11

## Overwintering Cattle in Nova Scotia

### Site Selection

Overwintering cattle outside in Nova Scotia is a viable option, but it requires careful thought and good management. For many producers indoor wintering is preferable; however, the option of keeping your cattle outside for the winter may provide economic and management advantages including: 1) the opportunity to use the barn space for other purposes, like feeding young cattle; 2) adoption of alternative feeding strategies, such as bale grazing; and 3) an increase in herd size without increasing farm capital investment.



Regardless of where you decide to overwinter the cattle, they will require careful monitoring and feeding. *The Code of Practice For the Care and Handling of Beef Cattle* (Canadian Cattlemen's Association) suggests that you "promptly assist individual cattle showing signs of not coping with adverse weather."

It also recommends that "cattle must have access to areas, either natural or man-made, that provide relief from weather that is likely to create a serious risk to their welfare." Wooded areas, topography, man-made wind breaks and barns can all provide the required shelter if proper management and feeding practices are followed.

Access to adequate feed and water are basic requirements regardless of where you winter the herd. It is also important that you can easily travel to and from the wintering area yourself since you will need to observe the cattle daily, deliver feed and treat any cattle that require extra assistance.

### Cattle Considerations

When considering out wintering cattle, the age of the cattle, stage of production, and health and body condition of the cattle all need to be considered as they may require extra care and feeding. As such, these animals would not be good candidates for out wintering. Cattle that are very old or young calves and cattle that score less than 2.5 in body condition (see Perennia's fact sheet: "*Body Condition Scoring*") will be more susceptible to cold weather. In addition, any animal that is not healthy will have challenges coping with severe weather.

Cattle should be acclimatised to the cold weather before they are left outside in the winter. They need to have the opportunity to grow a winter hair coat before they are wintered outside. Under normal circumstances, properly fed healthy cattle will grow their winter hair coat as the seasons change.

Cattle that have been previously housed in confinement may not have developed an optimum winter hair coat and these cattle require extra energy in their feed and time to acclimatize themselves to the conditions before they are out wintered. Some producers who regularly out winter their cattle select animals for their ability to grow a heavy hair coat for winter conditions.

### Access to Water

Access to water is a critical consideration, although in some parts of Canada snow is considered adequate for the cattle to survive under some conditions. In Nova Scotia there is often not enough snow or the quality of snow is not adequate for the cattle, so access to water is critical. This can be done by providing access to frost free watering systems, or access to natural water sources (this should only be allowed if done in an environmentally sound manner).

Producers should be careful to prevent direct access to ponds, especially in the winter. There have been cases of cattle wandering out onto ice to find water, falling through and not being able to get out of the water.

Ice that supported the cattle one day was weakened and failed a day later. Where frost free watering systems are used be sure to regularly check that the water is freely available, especially after a period of abundant snow. The cattle may select snow when available and water use at the watering site may not be enough to keep it functioning properly. Always check the water supply when you check the cattle.

Locate the watering site as close as practical to the feeding area so that the cattle will be encouraged to drink frequently. Remember that if the footing around the watering site is slippery the cattle will be reluctant to enter the area because they are afraid of slipping and falling.

### Wintering Sites

Wintering sites themselves can be as simple as fields that have areas of shelter; either man-made or natural. Many producers opt to use wooded areas or areas in a wood land that have been cleared for future development.

This can be a cost effective method for developing new pasture areas. Feeding cattle in a newly cleared area will deposit nutrients and possibly seed, helping to establish a new grazing area.

Gravel pits can also provide excellent wintering areas; they are often well drained and provide natural protection with banks and hills left after excavation. These areas could often benefit from having cattle in them for the winter and it is unlikely that the cattle would do much damage. Consideration needs to be given to controlling manure run off as with any livestock site.

Where possible, select a site that has a southern exposure and protection from the prevailing wind. Look for an area that is well drained and, if possible, with a soil type that drains freely and is not prone to turning to mud. It also helps to have a well-established sod that will help support the cattle during periods of thaw. Make sure that the area is big enough and that there is room for your herd and that they are not too closely confined. The larger the area the less pressure there will be on the ground and the less mud that is likely to develop. Avoid low-lying areas that accumulate water or that might be prone to flooding in the event of a fast thaw.

It is also vital that you have adequate fencing to contain the cattle in the area, but remember that snow can drift over fences and if this happens there will be times when the cattle will be able to walk over a normally effective fence. Usually cattle will not wander far from an area where they have adequate feed.



### Shelter

In the event that natural protection is not available in a well suited area, consideration must be given to providing shelter. This can be achieved with man-made windbreaks. These wind breaks should be 20% to 35% porous; a wind break made with 6 inch wide boards spaced 2 inches (5 cm) apart would be 25% porous.

The recommended width of the base of a portable wind break is one and a half times the height of the windbreak. A perforated wind break like this should provide an area of wind protection 10 times the height downwind from the wind break.



Another option for portable wind breaks is to stack round bale hay to act as wind protection. It is important to have electric fence around these bales so that the cattle do not eat the lower bales and cause them to fall over on themselves.

Observe the cattle during different weather conditions in the wintering area to ensure that they have adequate protection in all conditions. If the cattle are becoming muddy it is advisable to provide them with extra bedding to allow them to dry out. The accumulation of mud on the cattle's hair coat significantly reduces its insulation value.

As a result, the cattle will require more energy to stay warm and therefore more feed.

## Feeding

Feeding out wintered cattle appropriately is critical to success with mature cows' feed is required for maintenance, lactation, gestation, and/or growth. A cow's nutritional requirements increase as she is required to perform more "work" above basic maintenance, e.g. as she progresses through her gestation or if she is lactating.

These requirements need to be met in order to ensure animal health and good production. This is complicated in situations where cattle are out wintered. The maintenance requirements increase as the winter temperatures fall. These maintenance requirements increase with wind chill and if the cattle are wet.

Generally, cattle are able to maintain themselves until the temperature reaches  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) including wind-chill, without adverse effects. Beyond this temperature additional feed will be required to provide additional energy. This may require feeding better quality forage in addition to making more feed available.



Bale grazing is becoming increasingly popular as an overwintering management system. It has been used in western Canada for some years but its adoption in Nova Scotia, like out wintering cattle has not been common.

A number of producers have successfully utilized this management system (including the Nappan Experimental Farm). In a bale grazing management system, bales are placed in a checkerboard arrangement about 10 meters (11 yards) apart around a field (strings should be removed before freeze-up).



The cows are wintered in this field and given access to new bales as required by moving an electric fence wire. This wire is supported with portable posts and insulators driven into the end of the next bales to be fed.

This management system has a number of advantages including reduced labour requirements for feeding, reduced manure handling, and reduced nutrient loss due to manure handling. Bale grazing can provide a labour saving management system with the advantage that the cattle move to a new area as the bales are grazed, spreading the impact around the field.

Bales of varying quality should not be mixed around the field since the cattle will select the best bales first and the poorer quality second, resulting in wasted feed. Place the bales in such a way that they are similar in feed quality. Another important consideration is how you will work with the cattle if they require treatment during the winter period. You will need basic handling facilities so that the cattle can be restrained and worked on if required. These could be as simple as a small pen with a head gate or as sophisticated as a complete portable handling system. Whatever is selected it should be accessible for use regardless of the weather.

It is not always easy to move cattle when you want to, and bad weather can make any job more stressful and complicated. Tracking animal performance and being able to treat animals that need assistance is critical to profitable and humane cattle production. (Cattle handling is discussed in depth in the Fact Sheet: "Cattle handling and weighing facilities.")

If you are considering out wintering cattle visit other producers who have been practising this management system.

### For more information

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#### **Bibliography**

National Farm Animal Care Council. Code of Practice:

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