



# Winter Preparedness For Cattle

## Feed

Can use straw as a feed alternative during winter to stretch forage sources. Good quality straw will provide a good energy source. However, as straw is low in protein, the ration must contain an adequate source of protein (e.g. soybean meal, corn gluten meal) and appropriate mineral mix and salt.

Oat straw > barley straw > wheat straw

It is a requirement in the Code of Practice for Care and Handling of Beef Cattle that farmers must "provide additional feed to meet animals' increased energy requirements when facing cold stress"

Table 3. Effective Temperature and the Additional Feed Required to Meet the cow's Energy Requirements

Effective Temperature (°C)	Extra Energy Required (%)	Extra Hay or Grain Required	
		extra hay (kg/cow/day)	extra grain <sup>1</sup> (kg/cow/day)
-1	0%	0	0
-12	20%	1.6-1.8	0.9-1.0
-23	40%	3.2-3.6	1.8-2.3

<sup>1</sup>Cows may not be able to eat the amount of extra hay required to maintain their body weight and may have to be fed the indicated amount of grain **instead** of additional hay to meet their energy requirements.

For every 1 degree drop below the lower critical temperature, there is a 2% increase in energy requirements.





# Water

Make sure there is always ample water available. Limiting water will limit feed intake thus making it more difficult for cows to meet their energy requirements.

Snow is not recommended as a primary water source, but can be used as a secondary water source. In cases where producers cannot provide fresh water, such as extreme cold weather, snow can be used as a water source.

**Ideally producers should supply fresh, clean supply of water.**



# Shelter

It is important to protect cattle from wind. Wind significantly reduces the effective temperature, increasing cold stress. It is also recommended to provide bedding to insulate the bare ground to reduce mud and manure build-up on hides. Wet coats reduce insulation and makes cows more susceptible to cold stress.

If calving occurs during extremely cold weather, then shelters with bedded calving areas can be used to protect the cow and calf.



# Cold Stress

Cattle are generally tolerant of cold temperatures when acclimatized. However, wet cattle (e.g. newborn calves), cattle with poor body condition, and cattle fed inadequate energy have lower capacity to cope with cold weather.

Signs that cattle are not coping well with extreme cold temperatures include:

- Shivering
- Core body temperature below 35 degrees C
- Cold mouth
- Inability to get up
- Calves that do not have a sucking reflex and have frostbite

## References

- 1) <http://www.omafra.gov.on.ca/english/livestock/beef/facts/straw.htm>
- 2) <http://www.omafra.gov.on.ca/english/livestock/beef/news/vbn0804a6.htm>
- 3) <http://www.nfacc.ca/beef-cattle-code#section5>
- 4) <http://www.omafra.gov.on.ca/english/livestock/beef/facts/07-001.htm>