

## Feeding Cereal Forages

In Montana, about 5 million tons of hay are produced every year. The single largest consumer group for hay is winter-calving beef cows. From the middle of gestation in the autumn through early lactation in late winter, the daily nutrient requirements for cows increases dramatically.

For example, the daily protein requirement increases by 57% (1.4 to 2.2 pounds of crude protein, CP) and energy increases 28% (10 to 13 pounds of TDN) for a 1200- pound cow.

Our typical winter roughages (standing or hay) vary from mature grass, which routinely requires protein supplementation, to alfalfa which can serve as protein source. A growing segment of Montana's hay supply is from cereals like hay barley, spelt, and awnless varieties of winter wheat or triticale. On an individual ranch, these annual crops are very useful during renovation of old alfalfa fields – they have high yields, palatability and forage quality. Cereals can be grown to reduce weed and disease pressure in fields prior to rotating back to alfalfa.

Feeding cereal hay is a no-brainer in Montana. For the cow in the example above, some simple mathematics are used:

- The 1200-pound cow is expected to consume around 2% of her bodyweight per day = 24 pounds of dry matter.
- Conservative forage analyses for cereals are about 10% CP and 55% TDN.
- 24 pounds x 10% CP = 2.4 pounds of protein consumed per day. Requirement met.
- 24 pounds x 55% TDN = 13.2 pounds of TDN consumed per day. Requirement met.

This calculation demonstrates that cereals are good-quality base forage for constructing a winter diet. There are only a few drawbacks in using cereal forages. Be sure to view the discussions about nitrate toxicity and grass tetany on this website.

**SIDEBAR: "Feeding cereal hay is a no-brainer in Montana."**