

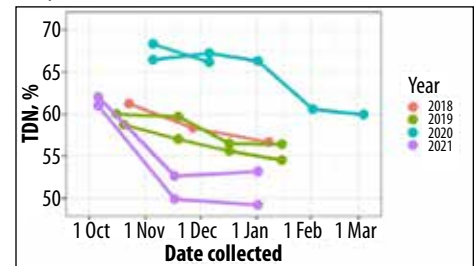
## SOUTH DAKOTA—Overwinter Change in Grazed Swath Nutritive Value

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In northern climates, the opportunity to grow cover crops after grain harvest is limited by the short growing season. However, when moisture is adequate in central SD, cover crops yielding 2,000–3,000 lbs/ac can be grown after winter wheat is harvested in July. These crops can be baled, but grazing them in the field saves time and money by eliminating baling and hauling. Also, when crops are grazed rather than fed in a feedlot, nutrients are distributed throughout the field via urine and dung. Grazing standing cover crops is an option, but swathing before grazing offers two advantages. First, swathing will stop the cover crop from maturing and losing quality. Second, if the field is buried by snow, it is easier for cows to access the forage when it has been collected into a 3'-wide windrow rather than searching the entire swathing width, which may have been 20'. What happens to the nutritive value of the swath over winter?

At the Dakota Lakes Research Farm near Pierre, SD, we have routinely collected winter swath samples and submitted them to a commercial laboratory for CP and TDN analysis. These cover crops have been dominated by cool-season grasses such as oats and barley. Our mixtures have also included ryegrass, triticale, winter wheat, peas, flax, lentils, and other crops in minor proportions. Across years and fields, CP response varied, but is typically lower in mid-winter than at cutting time. Even in the worst years, CP remained >10% throughout winter. In contrast, we found a consistent decline in TDN after swathing, typically occurring around October 1. Rate of decline was similar from 2018 to 2020, when autumn weather was cool and dry, which is typical for this region. 2021 was an anomaly because the hot and wet autumn caused a rapid decline in both TDN and CP.

**Figure 1.** TDN of cover crop swaths left in the field after cutting (around October 1). Each point is the mean of several replicate samples. In years when more than one field was sampled, independent fields are shown as different lines.



A calf grazes a cover crop swath through the snow at Dakota Lakes Research Farm.