SWATH GRAZING

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Swath grazing is the management practice of cutting hay, grains or forage crops and leaving them in windrows for livestock to graze during the winter months. It can be used to extend the grazing season and to reduce feed, labor and manure handling costs. The practice also eliminates or reduces the cost of baling hay, moving it off the field and feeding it in the winter. Cattle are allowed access to a limited number of windrows at a time, which results in improved feed utilization, better distribution of manure and can increase soil fertility. In essence, swath grazing "buys" grazing days or extends the grazing season and provides the opportunity to lower winter feeding costs by reducing the number of drylot feeding days required.

Most producers use swath grazing to feed dry, mature beef cows that are in good body condition score. Producers should practice caution when swath grazing calves, young cows, thin cows and cows with calves because they have higher energy requirements than dry, mature cows. It is important for producers to monitor and account for any changes in the body weight of swath grazed cattle as that might negatively impact their economic gains..

Supplemental feed may be provided to livestock with high energy needs. Supplemental feed and shelter are also necessary during extreme weather conditions such as snow storms, extremely low temperatures, wind and cold rain.

ECONOMICS OF SWATH GRAZING

Since swath grazing will occupy a site that had previously grown a crop, it is important to consider the value of the forgone cereal or forage crop when determining the economic value of a swath grazing program.

Generally, livestock expend 18-20% more energy to harvest their own feed compared to animals being fed in a drylot system, mainly due to the extra energy needed to search for feed and to stay warm. Results from a swath grazing survey in Lacombe, Alberta showed that the costs of swath grazing were 37-60% less than the on-farm costs for feeding stored feed.

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FIELD SELECTION

A suitable field for swath grazing is one where:

- Animal condition can be easily monitored,
- A water system is available especially if snow is unavailable or is unsuitable as a water source,
- Protection from the wind is available, whether it is a natural or portable windbreak.
- Access to windrows is not limited due to severe snow drifting,
- Supplemental feed can be provided to the animals when necessary,
- Wildlife problems can be controlled.

SELECTING THE ANNUAL CROP

Barley and oats are the most common crops used for swath grazing in Alberta. Producers and researchers have found that high yielding grain varieties generally produce higher forage yields. Forage quality at the time of swathing can be enhanced by selecting late maturing forage varieties. Depending on your location, annual cereals may be seeded in mid-May to early June and swathed from late August to mid-September when the crop reaches the soft to late dough stage.

ON-FARM IMPLEMENTATION

Swath grazing usually starts in November and continues in to the late winter or early spring depending on feed availability and when the cows are moved to the calving area. To estimate swath utilization, assume a cow will consume 2 to 2.5% of its body weight per day. Thus, a 1,200 pound cow will consume about 24lbs dry matter of swath feed per day. Swaths not utilized during the winter swath grazing period can be completely consumed by cows and calves the following spring.

Controlling the amount of swath that is accessible to the cattle is cited by producers as one of the most challenging and important factors to swath grazing. One way to prevent free access to the entire swath grazing area is to use a portable electric fence. By restricting access, feed utilization is improved. Wastage is also reduced by preventing livestock from trampling swaths over a larger area. Forage quality will also be better if swaths can be left undisturbed until they are required for grazing. Producers should monitor the herd closely for body condition, body weight and health. Feed tests should be conducted and supplemental feed should be provided when necessary or during periods of extreme cold and heavy snow falls. Mineral salt should always be available. If spring grazing cow-calf pairs, it will be necessary to provide extra energy in the form of silage, grain or hay to nursing cows.

Cattle prefer water, but clean soft snow can be an adequate water source. Cattle unfamiliar with using snow as a water source will start to consume snow within 1-3 days. Producers should provide alternative water sources if the snow is insufficient or in bad condition.

Manure management: On average, a 1,000 pound cow produces 50 to 60 pounds of manure and urine per day. Since swath grazing forces the cattle out on the field during the day, manure deposited during that time is distributed on the land.

Wildlife management: Damage and feeding by large wildlife can make swath grazing impossible for some producers. The use of a double electric fence spaced about 1-1.5 m (3-4 ft) apart may help prevent wildlife from entering the swath grazing area

1. *Baron, Vern S., Raquel R. Doce, John Basarab, and Campbell Dick, 2014, Swath Grazing triticale and corn compared to barley and a traditional winter feeding method in central Alberta, Can J. Plant Sci. (2014) 94: 1125-1137*

The Alberta AgriSystems Living Lab (AALL) is utilizing a participatory action research model to support Alberta's producers to adopt beneficial management practices (BMPs) including ***Swath Grazing****. Our team of researchers from the University of Alberta (UoA), Agriculture and Agri-Food Canada (AAFC), subject matter experts and consultants are measuring the impacts of these BMPs on the profitability and environmental sustainability of the whole farm. AALL is led by the Alberta Beef Producers collaborating with over 16 other livestock, crop and environmental organizations aimed at improving the sustainability and resilience of Alberta's livestock, crop and forage producers. For more information, please visit our website at agrisystemsll.ca.*

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