



## **Plan Your Forage Program Now for 2019**

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Fall and winter is a good time to reflect on pasture planning and pasture monitoring strategies. Using cows to harvest the grass is the economic basis for cow-calf production and feed costs typically make up the largest component of annual cow costs. Producers can minimize annual feed costs by managing for maximum grazing with minimal use of hay and supplemental feed to seasonally overcome lack of forage quantity and/or quality.

In many cases it is feasible to reduce annual cow costs with a combination of better grazing management and reduced hay use. Some of the areas that can be looked at to minimize annual feed cost are:

**Hay production, storage and feeding.** If you are producing hay, emphasize quality over quantity by harvesting forage at optimal quality. Test hay to know what you are producing. Low quality hay is more expensive to produce and less valuable to use. Minimize waste by storing hay properly. [Bale Storage](#) Hay feeding should be based on the animals' nutritional needs at any point in time. Feed to ensure animals nutritional needs are met and minimize feed waste.

**Buy hay versus producing hay.** Better grazing management and using less but higher quality hay can further reduce hay needs. If hay is purchased, it is critical to know what and how much you are buying. [Methods of Buying and Selling Hay](#)

Hay should be weighed in order to know the actual cost per ton. Supplemental hay or other feeds should be used to meet specific protein and/or energy needs; hay as well as other supplemental feed sources should be evaluated to determine the least cost manner for meeting the nutrient needs of cattle at each stage of production. "Bargain" hay (whether purchased or produced!) is, in fact, often a very expensive source of protein and/or energy.

**Minimize hay use.** Planning grazing management now, for the 2019 growing season and beyond can significantly influence winter hay needs. Summer grazing management will set up the potential for stockpiling or extending forage for fall and winter grazing. Grazing management must be planned and implemented according to the wide range of forage types as well as climate and soil conditions that exist across Manitoba. In all cases, proper stocking rates are critical to achieve grazing management objectives. It is

important to assess forage condition and production potential in order to develop realistic grazing management plans.

One such method is the [Grazing Response Index \(GRI\)](#) assessment tool. The GRI is a simple and relatively quick way of making management decisions based on a producer's current season grazing management. The GRI assessment looks at three components:

1. **Frequency** looks at how many times grazing animals have an opportunity to re-graze the same plants. Plants grow enough after defoliation to be re-grazed every seven to 10 days. Three or more successive defoliations during a grazing period negatively impacts plants. For example, if your livestock are in a paddock for a total of 13 days, then plants could have been grazed up to 2 times, generating a frequency index value of 0.
2. **Intensity** is a measure of how much leaf material is removed during the grazing period. The more leaf area remaining after grazing, the more photosynthetic capacity there is to replenish carbohydrates and recharge root systems. Removing no more than half of the leaf material in a grazing period ensures there is adequate leaf area to capture light energy and allows for plants to re-grow or recover. Intensity falls in one of three categories: light, moderate, or heavy utilization. Heavy utilization is considered when more than 56 per cent of the plant material has been removed.
3. **Opportunity** refers to how much time the plants have for growth before and/or after grazing. Assessing opportunity can be subjective as recovery periods depend on growing conditions and should be done at the end of the season. For example, if plants appear un-grazed at the end of the season or if plants reached full growth before grazing, then the site would score 2. Under continual grazing, the site would score -2.

None of the above components are new to most range managers but by looking at the overall GRI value for each pasture, it may provide direction on where and when to adjust grazing management to achieve a more sustainable operation. Considering the individual GRI components (i.e. frequency, intensity, opportunity), a producer can begin to determine what management or infrastructure adjustments are needed to yield a positive GRI score. In combination with other rangeland assessment tools, GRI can enhance opportunities for adaptive rangeland and pasture management, which in turn, can improve long-term forage and livestock productivity.