Rangeland Reality Check: Basic Principles of Grazing Management
by Tara Mulhern Davidson

Mother Nature certainly flexed her muscles in the 2017 growing season. Drought, fires and poor stock water quality are just some issues that caused Saskatchewan ranchers grief. Challenging years like 2017 can lead producers to go back to the basics of range management to help them recover from the past and be productive in the future.

Native prairie grasslands are incredibly resilient and have developed over time to withstand extreme environmental conditions. No rancher looks forward to harsh years, however it is heartening to know that prairie ecosystems can recover provided some thoughtful management is used.

Managing native prairie is an art and a science. There is no perfect way to do things, and reality often gets in the way of theory. However, there are four basic principles of range management that producers can use to manage grasslands.

Balance forage supply and demand

The old adage “it takes grass to make grass” is true. At the end of a grazing period, there should be adequate carryover of plants left remaining. This carryover allows plant leaves to continue catching sunlight and convert solar energy into leaf growth or stored energy in the root system. Carryover ensures the plants survival, maintains pasture health and function, and prepares plants to grow well in the next season. Carryover also provides habitat for species at risk, wildlife, and grassland birds; is useful for trapping snow; and creates litter, which insulates the soil, retains moisture, and provides nutrients for better plant growth.

The amount of forage consumed by livestock varies according to the type, weight and class of cattle. Alternately, the amount of grass a range ecosystem produces depends largely on the availability of moisture. Producers may need to make stocking rate adjustments from one year to the next to avoid tipping the balance too far in one direction.

The amount of forage in a native pasture can be calculated using range condition and range health assessment tools. Some producers may use historical knowledge to determine how many cattle a particular pasture can support in a season over the long term. If producers are lease land holders, their prairie pastures will be rated for a particular number of Animal Unit Months (AUMs), which is a measurement of available forage. One AUM is equivalent to the amount of forage a 1000 lb cow eats in one month.

Visit www.pcap-sk.org > Resources & Literature > Resources > Saskatchewan Range Ecosite Guide to look up individual stocking rate suggestions for particular range ecosites (i.e. clayey, loamy, sandy).

Rest and reset

In order for prairie grass species to stay productive, pastures need to be rested between grazing times. This rest must take place during the growing season—“resting” a pasture while the plants are dormant in the fall or winter is not effective at all!

Many native plants can take up to a year to fully replace the energy that was drawn from their root systems in order to regrow after grazing. While a year may seem like a long time, this rest may already be accomplished through a simple rotational grazing plan. When producers consider their entire grazing resources, including tame grass, they may rest some fields longer than necessary and use others more often than recommended, but switching the order of use each year may provide the rest required long term for the grazing system as a whole. Building in time for rest will allow prairie to reach its production potential, maintain stability, and require fewer year-to-year stocking rate modifications.

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Decide to defer

Another old range rule of thumb says "for every day you wait in the spring, you get two days later in fall." Deferring grazing until after native plants are in the four-leaf stage or have passed a sensitive time, can be helpful. Waiting until June or later to graze prairie pastures allows plants a head start, and many have set seed. Deferred grazing may also benefit a particular species at risk or wildlife species by avoiding disturbance of breeding grounds. For producers who have both tame and native grassland, many choose to graze tame pastures early in the spring and save native pastures later in summer, fall and winter.

Manage for uniform grazing distribution

Native pastures often have several range types within a single field. Different soil types, diverse topography, the type and quality of water sources and fencing can all affect how livestock use an area. It's generally a good practice to graze a pasture in a uniform manner to avoid getting significant pockets of overgrazing or large areas of underutilization.

Stock water is usually the limiting factor on the range, so it's expected that there will be heavier grazing closer to a water source. Developing new water sources may not be feasible in some environments, so strategically placing salt and mineral can help draw cattle into areas that require more grazing. Herding and settling cattle in a particular area that you want them to graze can also be effective as can working with "home drift," a herd's natural tendency to migrate toward the direction of their wintering ground.

Managing grazing on native prairie is not always straightforward and there are no easy solutions. Stepping back and assessing what happened this past year, however, may be the key to preparing for Next Year country.