

DROUGHT STRATEGIES

Managing Your Range Through Drought

Unfortunately, drought is inevitable. Whether it occurs once in five years or for five consecutive years, it will occur. This factsheet will focus on the effects of drought on range and suggest some tips on how you can manage your range through drought.

DROUGHT EFFECTS ON RANGE

A lack of adequate soil moisture will:

- Limit plant growth resulting in reduced forage yields.
- Limit plant root growth, which increases their vulnerability to future drought.
- Limit the ability of native, perennial range plants to compete with weedy, shallow-rooted, less productive invasive plant species. This may be enhanced by grazing which further stresses these native perennials.

Unhealthy range plant communities tend to be more susceptible to drought as are plant communities located on coarse-textured (sandy, gravelly) soils. Healthy range plant communities however, tend to store more moisture in their litter layer and make greater use of available soil moisture due to larger root systems. As a result, reductions in forage production are generally less on healthy range.

MANAGING YOUR RANGE THROUGH DROUGHT

There are numerous tips that may assist you in managing your range through drought. First and foremost, either lower your stocking rate or shorten your grazing period. If you stock your range at normal stocking rates, you risk damaging it and lowering its productivity in the future. You need to ensure that stocking rates are adjusted so that livestock needs are balanced with the forage supply.

1. **Turn out** - If possible, delay turnout. If you graze your plants too early during a drought, you will stress them further and increase the amount of rest needed before they can replenish their energy reserves. Also, by delaying turnout you lower the risk of losing livestock to poisonous plants by increasing foraging options.
2. **Grazing systems** - In order to maintain healthy plant communities avoid or defer grazing pastures that were heavily grazed in the previous grazing season. Conversely, graze pastures that were rested, deferred or lightly to moderately grazed the previous season. Rotational grazing systems are preferred over continuous grazing systems since periodic rests help plants maintain vigor. If you have a rotational grazing system, shorten your grazing periods by rotating more frequently.

FACTSHEET



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3. **Distribution tools** - When faced with drought you may also want to consider improving the distribution of your animals. This may enable you to take advantage of areas that normally receive little or no grazing pressure during average years. Various tools can be used including:
 - **Water** - consider trucking or developing new water sources.
 - **Salt, mineral and feed (protein blocks etc.)** - all of these may be used to attract livestock to underutilized areas and act as supplements to tame and native forages.
 - **Fencing** - temporary or permanent fencing can be a useful tool to increase utilization of unused forage resources.
 - **Herding** - although labour intensive, herding can also be very effective in improving pasture utilization.
4. **Plant residue (stubble heights)** - Maintain an adequate amount of plant residue that will facilitate plant recovery while adding to the litter layer. Also, maintain at least 10 cm (4 inches) of stubble at the end of the growing season in order to increase snow catchment, reduce erosion, and increase the probability of filling your water developments and maintaining the moisture on your land.
5. **Rest** - Do not return to a pasture until plant appear vigorous and growth has resumed. Don't overgraze native rangelands with the expectation that the drought will end next year. Drought cycles often persist for several. Overgrazing often results in the loss of important forage species, increased bare ground, and corresponding weed invasions.
6. **Use everything** - Use all sources of forage including rest, reserve or buffer pastures and fields. Also, since crested wheatgrass is very tolerant of drought and grazing, graze it early and longer than normal but resist the temptation to regraze it after July 31st. Always assume that a drought will continue. If possible, delay grazing grasslands as long as possible, preferably after the grasses have set seed and entered dormancy. Graze forests during the growing season.

POISONOUS PLANTS

British Columbia contains a variety of plants that are poisonous to livestock. Drought can increase livestock poisoning by increasing the toxicity of poisonous plants and limiting livestock foraging options. The best way to avoid plant poisonings is to learn how to identify the poisonous plants in your area and avoid turning out livestock in situations where foraging options will be limited.

