

Prescribed Grazing During Drought

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Conservation Practice Fact Sheet



There are three components of grazing for drought management. The first is preparing the land to withstand dry weather better, the second is to increase the harvest efficiency to better use the grass available, and the third is to have plants vigorous so they can regrow rapidly once rain comes.

Monitor organic matter.

A key management tool is to increase the organic matter of the soil. Soil tests should be used to monitor organic matter changes and a content of 4% can be easily achieved with proper grazing management. One way to increase the organic matter is to rest plants and let them grow to a 6-10 inch height (cool season grasses) or 4-8 inch height for warm season

grasses before being grazed. This increases the depth of the plant roots which contributes to the organic matter as well as allowing plants to draw moisture from greater depths during dry weather. The organic matter retains moisture in the soil a longer time period and helps decrease plant stress. The higher level of organic matter is also important for earthworm and dung beetle activity. Increased organic matter also increases absorption of water during rain periods.

Don't overgraze pastures.

A related point is to not graze pastures too short so water absorption during rainfall will be increased. For example, a pasture residual of two inches retains 70% of the rainfall whereas shorter pasture has

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increased runoff. Also, plants that are kept grazed “into the ground” deplete stored carbohydrates and are more susceptible to losses during dry weather, as well as taking longer to recover after a drought. It may be useful to feed hay during extremely dry weather in order to not graze pastures too short. The last thing a land owner should do during dry weather is to “open all the gates”.

Use of sacrifice pastures.

A sacrifice area is one that is “abused” for a short time period and then given extra time to recover from that abuse. During times of drought, it may be a pasture that is used to feed hay on and the available forage is grazed extremely short. In some cases, it may be necessary to drag the pastures and overseed with annuals, legumes or other grasses. Sacrifice areas should:

- have an adequate availability of shade or wind break/shelter during the winter, have a filter area between it and bodies of water,
- be pastures that have a good sod of fescue or bermuda, or
- have need for increased fertility/seeding through the feeding of hay.

Strip grazing.

Rotational grazing helps in drought management as it rests the plants and makes them more vigorous. However, it may or may not increase harvest efficiency depending on the frequency of rotation. Strip grazing has been shown by University of Arkansas Cooperative Extension to double the grazing days per acre of

stockpiled forages. The idea of strip grazing is to provide a new “strip” of pasture for livestock as often as practical. Usually this ranges from 1-3 days. The more frequent the movement, the higher the harvest efficiency. Moving twice a week would allow 50-60% of the forage to be harvested and this can be increased to 70-80% by moving every day or twice a day. When “stripping” a pasture, a back fence is not needed until regrowth occurs. This can be 3-4 days under good growing conditions to several weeks during the winter. However, once it rains, the area that has been grazed should have livestock removed or have a back fence added to allow good plant recovery and increased availability of forage. If animals are allowed access to the grazed area, they will graze the new growth and slow the accumulation of adequate dry matter for optimum grazing.

Use of electric fencing and water availability.

Temporary electric fencing (polywire and reels with step-in posts) can be used to divide pastures or to strip graze pastures. There are also low impedance chargers powered through batteries that can be used to strip graze. As with any equipment, a person must purchase a high quality system for the fence to be effective. One strand of polywire is effective for cattle and horses and 2-4 wires may be required for sheep and goats.

Water can be provided through piping laid across the top of the ground with couplers to plug in portable water tanks. A 50-gallon tank can water a large herd of cattle if the water tank is in the paddock area being grazed as animals drink individually rather than as a herd.