

Managing Drought Stressed Pastures

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Over the last several years, many areas have experienced summer drought conditions for a few weeks to several months. Compared to annual crops, pastures and hayfields are much more dependent on evenly spaced, adequate rains to yield well. A well-managed rotational system will keep your paddocks growing longer into a drought, but no amount of rest makes up for a lack of water. So what can a producer do when the tap is shut off?

It's late summer and you're out of pasture...

1. **Feed hay, haylage or other stored feeds on pasture** (preferred) or confine animals for feeding. Feeding hay during pasture season is expensive, but overgrazing pasture can have greater long-term effects on pasture survival and productivity. See the link to the right for information on managing unplanned feed costs.
2. **Plant annuals for fall grazing.** If it's still early in the season, a sorghum sudangrass planting in early July can yield 2 to 5 tons of forage by fall. After that, you'll still get some tonnage, but it may not be worth the expense. Annual ryegrass can produce well for late fall when planted in August, but all of these annuals depend on some moisture to begin growth.
3. **Graze your corn.** For those who raise corn for grain or silage, grazing standing corn is an option. Corn can be grazed at any stage of maturity, even after drydown, but is more nutritious when it's still green.
4. **Reduce animal numbers.** Depending on your situation, consider renting additional land from a neighbor, contracting with another producer who has ample pasture, or selling off animals. The economics of each of these options need to be weighed against the cost of purchasing feed.

For More Information...

Managing unplanned feed costs:
<http://www.uwex.edu/ces/crops/uwforage/PayingExpenses--FOF.htm>

Emergency forages:
<http://www.uwex.edu/ces/forage/wfc/proceedings2003/emergencyforage.htm>

Grazing corn:
<http://ohioline.osu.edu/anr-fact/0011.html>

Whatever you do, keep the long-term health of the pasture in mind.

When drought comes and pasture forage is in short supply, it is tempting to continue grazing until all the forage is gone, to move your herd to paddocks where there is any small amount of green growth, or to open up paddocks and let the cattle run the entire pasture. These practices are detrimental under normal conditions, but are worse during drought conditions. The short term benefits of a day or two of grazing are outweighed by the depletion of root reserves and the slowing of plant recovery once moisture is available.

Don't skimp on rest periods

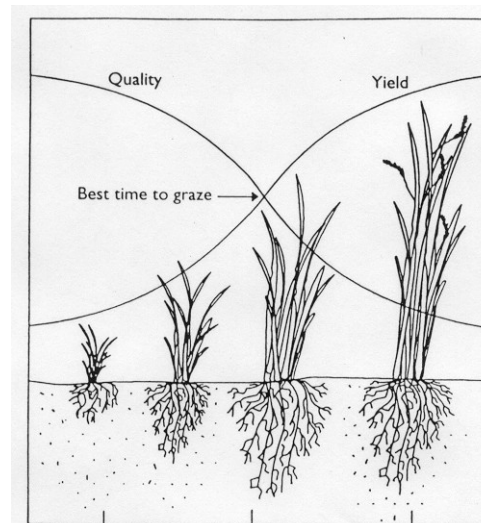
Under normal moisture conditions, rotationally grazed pastures require a rest period of as little as 2 weeks in spring to 5 weeks in late summer. During a drought, the rest period can lengthen to 45 or 60 days or longer. If the pasture is given the rest it needs, roots will stay healthy and the plants can build up energy reserves in the tiller base (grasses) and roots (legumes) for later growth. Giving adequate rest periods allows for compensatory growth of pasture plants when rainfall finally comes.

Plants overgrazed during drought will recover much more slowly. If poor drought management this summer is combined with a hard winter, you may lose your stand. In addition to alfalfa, orchardgrass, ryegrass, festulolium, and the new tall fescue varieties are susceptible to winter kill.

Stick to Recommended Grazing Heights

Allowing the plants to grow to an adequate height will ensure good root health before grazing. For bluegrass, this is 4 to 6 inches; for orchardgrass, bromegrass and endophyte free tall fescue, 8 to 10 inches. Rotational grazing will also allow good utilization and provide controlled rest for the plants between grazing.

Adequate rest periods allow the plant's energy reserves to be restored and tiller buds to form. At this time, pastures can be grazed to use available top growth without hurting plant health or spring growth. Leave at least a 4-inch stubble on orchardgrass, bromegrass since new growth in the spring comes from the energy reserves in that part of the plant. Bluegrass, which has energy reserves in below-ground stems, will survive closer fall grazing.



What if I've already grazed everything down?

It's not too late to fix some of the damage that may have occurred through overgrazing. Pastures that were severely overgrazed during the summer will benefit from resting until growth stops in fall. Resting drought-stressed pastures from August until mid to late October will allow them to build energy reserves since grasses catch sunlight and make sugars even when it is too cold for growth. Also during this time of year, grasses will develop new tiller buds necessary for next spring's forage production. With overgrazing in the fall, the pasture's growth potential next spring is jeopardized.

Options for feeding stored forages

- **Confine herd to a feedlot, if facilities are available.**
- **Feed in alleyways and lanes.**
- **Establish a single sacrifice paddock.**
- **Continuing to rotate your herd and feed with a portable feed bunk or wagon.**

Feeding stored forages during drought

In summary, it's really not worth it to try to stretch the pasture when you're well into a drought. The tradeoff between a few more days' grazing and the long term health of the pasture is not worth it. You're better off making the decision to save the pasture and feed hay. The benefit will be that, if and when the rains resume, your pasture will be in good shape to begin growth. It'll spring back faster, survive the winter better, and will be healthier for next year and into the future.

Warm season grasses are ready for grazing in July and August, and as such, should comprise no more than 1/4 to 1/3 of your pasture acreage. Big bluestem is the species best adapted to grazing, but planting a mixture of big bluestem, indiangrass, and switchgrass, will provide the best long term results.

Other species that are commonly used in warm season mixtures include sideoats grama, eastern gamagrass, and Canada wildrye. Most native seed companies offer mixtures or have advice on seeding rates. Another source of information and planting assistance is your local DNR office.

Consider irrigation

In recent years, several relatively inexpensive portable irrigation systems have been developed for pastures. These usually involve a series of sprinkler 'pods' linked together with plastic waterlines. A set up will water 5 to 10 acres at a time, and they have been designed to be easily moved from one paddock to another.

Ranging from \$5000 to \$10,000, these systems are significantly less expensive than traditional pivot irrigation. The additional water use of such a system may require well improvements or a new well, depending on current capacity. To date, only a handful of Wisconsin graziers have invested in this equipment. Their value in terms of increased pasture production has not been documented here.

For more information:

UW Extension grazing website:

<http://www.uwrf.edu/grazing/>

DATCP/CALS grazing website:

<http://www.cias.wisc.edu/grazing/>

GrassWorks website:

<http://www.grassworks.org/>

Your local Extension Agriculture Agent:

<http://www.uwex.edu/ces/cty/>

GLCI Grazing Specialists:

<ftp://ftp-fc.sc.egov.usda.gov/WI/grazing/nrcsgrazspec.pdf>

Wisconsin Farm Center Hotline:

1-800-942-2474

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