## Rest, recovery key to small-

"Do you know anyone who has extra pasture for lease? I'm a little short this year." It's a question I hear all the time about a common problem, especially during the last few years of drought.

Those who pasture livestock, whether one 4-H horse or hundreds of beef cattle, are, in reality, grass farmers. We raise and care for grass and other herbaceous plants, which are then harvested by our animals. A grass plant's health, and ultimately the soil's water and mineral cycles, are directly related to the type and duration of grazing we allow. Notice I say "we allow." If your critters are dictating how you graze, there may be a better way!

Most grasses evolved with grazing and so are equipped to respond to grazing. In fact, some grasses need grazing, fire, or some other type of top-growth removal to survive. One of the adaptations many grass species use to their advantage in a grazing environment is locating their growth points close to the soil surface as opposed to up in the air where they may be removed by grazing animals. The growth points for most other plants, shrubs, and trees are located higher on the plant and, if you remove it, their growth pattern may be severely altered. Removal of the growing



points may cause these plants to hedge out, or their growth may be entirely curtailed.

Not so with those grass plants whose growth points are down in their plant crowns . They're built to not only survive grazing but thrive with it if managed properly.

Let's think about a grass plant's mission – to make its own food. To do this, grasses capture solar energy from the sun and absorb carbon dioxide from the air. These inputs, combined with water and minerals absorbed from the soil through the root system, allow plants to produce sugars and starches to fuel their own growth. Plants rely heavily on their actively growing leaves for the capture of solar energy and the uptake of carbon dioxide. Because of this, it is very important to provide grass plants with opportunities to grow in the absence of grazing pressure so that they may benefit from their actively growing leaves.

The key is rest – the recovery period between grazing events. If the plant is grazed a second time too quickly – before the leaf area is large enough to support growth – its health and production can be expected to decline. This is actually a good definition of overgrazing: biting an individual grass plant a second time before it has had adequate time to recover from the first bite.

Giving that plant sufficient time between bites will build root mass and leaf production and may boost plant vigor. If not, the results are dwindling roots, slower leaf growth, the inability to recover from grazing, and lots of bare soil.

Do you know any good examples of this scenario? How about your yard? Does it rest between "grazings"? Is it thicker and fuller than your pasture? I bet it is, and I bet you "harvest" it by mowing it repeatedly all summer! You may be able to do the

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same with your pasture by changing from seasonlong grazing to "rotational" or "intensive" grazing.

Modern electric fencing (see related article on page 4) is the easiest method to subdivide a pasture into paddocks and begin rotational grazing. Portable electric polywire lets landowners match the speed of the rotation to plant growth. Because plants grow fastest in the spring when soil moisture typically peaks and then slower for the remainder of the growing season, it is critical to rotate "fast during fast growth, slower during slow growth."

Think about this for a minute. If our objective is to graze the plant once then rest it adequately so growth can resume and root reserves aren't dipped into before it is bitten again, this stands to reason. An actively growing plant will recover faster than one that is in the slower growth phase later in the summer. As for winter grazing, the plant is not actively growing and will not suffer root damage. This can be beneficial as it removes old leaf matter and clears the way for a fresh start for the plant next spring.

So, what benefits might you realize from this type of grazing? There are many, including tighter plant spacings, improved soil fertility, new plants started by hoof action, faster manure breakdown, less fly and pest bother, higher production (meat, milk, wool, etc.) per acre, and stockpiled grass for winter grazing – less hay expense!

Many people report the ability to graze twice the normal stocking rate per acre or more when shifting from continuous grazing systems to those incorporating adequate rest periods.

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## Where can I turn for more information?

Electric fence design and dealers: Gallagher Animal Management Systems http://www.gallagherusa.com/pf.types.aspx

High Country Ag Marketing Inc. http://www.hcam.net/

J.L. Williams Company http://www.safefence.com

Morgan Renner, territory manager, Gallagher Animal Management Systems e-mail: ucme4shox@tctwest.net

Tru-Test http://www.trutest.co.nz/speedrite\_new

## Grazing planning:

Rangelands West Consortium http://www.rangelandswest.org/

Holistic Management International http://www.holisticmanagement.org/

University of Wyoming Cooperative Extension Service http://www.uwyo.edu/UWces/Counties.asp

Wyoming Association of Conservation Districts, local offices http://www.conservewy.com/

Natural Resources Conservation Service, Wyoming http://www.wy.nrcs.usda.gov/technical/rangemgt/range.html

Oregon Small Farms Pasture Management http://smallfarms.oregonstate.edu/pasture/

Small Pasture Management Guide for Utah http://extension.usu.edu/files/agpubs/pasture.pdf