

Monitoring grass grown vs. grass grazed in western Kansas

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How much range grass is growing?
How much growth has already occurred?
How much further growth can be expected?
How much production have the livestock already removed?

Can I predict whether there will be enough forage for the rest of the grazing season?

These are not really hypothetical questions, and you CAN formulate pretty accurate answers by using two simple tools:

Grass Growth Curves
Grazing Exclusion Cages

Western Kansas is comprised of short-grass prairie, mixed-grass prairie and sand prairie. Short grass is considered buffalo grass and blue grama, with lesser amounts of mid-grasses like sideoats grama and little bluestem. The mixed-grass is considered species like sideoats grama and little bluestem with lesser amounts of buffalo grass and blue grama. Sand prairie is comprised of mid grasses like sand dropseed, lovegrasses, and sideoats grama, with lesser amounts of sandreed, sand bluestem, etc. A very important thing to note here is that these grasses are nearly all "warm-season" grasses, meaning that most of the growth occurs May-September. So, all this now known, if we can determine exactly WHEN AND HOW MUCH these plants are growing, we should be able to calculate how much growth has occurred and how much could still occur.

Grass Growth Curves (or tables) can give us that very information! It is broken down by range site (soil), AND by geographic area. In general, though, the percent growth/month for western Kansas is this:

May 20 percent
June 35 percent
July 25 percent
Aug 10 percent
Sept 10 percent

(as an example, at the end of July, 80 percent of the grass growth has typically already happened—20 percent +35 percent +25 percent)

All this should help us get a handle on monitoring grass growth throughout the growing season. But what about monitoring grass GRAZED? GRAZING EXCLUSION CAGES!

This tool is just what it says—the grass inside is protected from livestock. Cages can easily be made by bending a 16-foot welded-wire livestock panel into a cylinder shape, and staking down with a couple of t-posts. They should be located on the most prevalent soil types AND on any particularly fragile sites in the pasture. The grass species within the cage could be the most abundant grazed grass in the pasture, OR a species you may directing your management toward--these species would often NOT be one-in-the-same.

One more thing on exclusion cage use--they should be moved every year, just before grazing time. This will help ensure valid, representative readings or data. Usually just moving them 100 feet is enough, providing they are still on the



proper soil type AND grass species.

Exclusion cages pretty much tell the tale of total grass production (inside cage), compared to amount being grazed (outside cage). A sound grass management plan usually uses the old axiom of "take half and leave half" by the end of the grazing period.

Regular visits to the exclusion cages along with using the percent grass growth/month

figures should make meeting this objective and calculating available grazing MORE-THAN-A-GUESS.

For more information about grasses, please contact your local Natural Resources Conservation Service office or conservation district office located at your local county USDA Service Center. To learn more about NRCS, visit the Kansas NRCS Web site at www.ks.nrcs.usda.gov.

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