

Ranchers in drought-stricken parts of Nebraska are facing tough decisions in 2013, including how many livestock their depleted pastures will be able to support and whether to supplement pastures by planting forage crops to be grazed or harvested.

University of Nebraska-Lincoln Extension specialists and educators are providing advice on evaluating pasture and range conditions and selecting supplemental forage crops if necessary. For ranchers who decide to plant forages, making the most of limited precipitation and irrigation water will be vital, Extension experts say.

According to Extension Educator Aaron Berger, producers will have more success at evaluating which forage options best meet their goals if they understand when different forages use water most efficiently and how timing their harvest can affect optimum quality and quantity.

Most pastures will not have much carryover vegetation from last year available in 2013, according to Dr. Jerry Volesky, range and forage specialist at UNL's West Central Research and Extension Center in North Platte.

Volesky wrote an article posted on the droughtresources.unl.edu web site explaining how producers should evaluate pasture and range conditions and make grazing management decisions. It also highlights how annual forages can be used to provide additional feed.

Volesky's article, titled "Grazing and Forage Management in 2013," and other resources at beef.unl.edu and droughtresources.unl.edu, have much more information, as well as links to resources and decision-making tools available at various Extension web sites.

One of those resources is a new Nebguide, "Utilizing Annual Forages with Limited Irrigation for Beef Cattle During and Following Drought," Nebguide G2185. Authors include Berger, Volesky, Extension Educator Tom Holman, and Karla Jenkins, Cow-Calf and Range Management Extension Specialist. It is available at ianrpubs.unl.edu or by contacting local Extension offices.

Volesky writes that it is not too early to begin making grazing and forage plans for this year. Reviewing 2012 grazing records is an important step. Knowing when grazing occurred on each pasture (days, weeks, months), the stocking rate, and observations of the residual forage left in the pasture are valuable, according to Volesky.

Most pastures probably experienced higher forage use than planned last year because of the drought, according to Volesky, and probably will not produce as much this year. Surface and sub-soil moisture levels were very low as of early March.

Timing is an important factor in grazing management. A standard recommendation is to avoid grazing the same pasture at the same time each year. Repeated annual grazing during the rapid growth stage will reduce the vigor of grasses.

Rapid growth stage typically occurs in May for cool-season grasses and June and July for warm-season species. Last year's early warm spell moved this stage earlier. Cool-season grass pastures grazed in late April to early May and warm-season pastures grazed in late May and June mostly likely received the most grazing stress last year and should receive deferment priority this year, Volesky recommends.

For 2013, producers should focus mainly on balancing forage supply and demand. Forage supply will be affected by the amount of precipitation in the spring and early summer. Since that is unknown, producers should consider planning for multiple scenarios, Volesky recommends: average or above-average precip, abnormally dry to moderate drought, and continued severe drought.

For pastures and rangeland, common recommendations for the year after a drought include:

- Delay initial turn-out into the pasture.
- Reduce stocking rates.
- Capitalize on growth of weedy species that might occur.
- Use rotation grazing and in central and western Nebraska, graze pastures only once from turn-out to killing frost.
- Use alternative forages.

Berger reviewed several options for alternative forages in a webinar in February titled “Forage Production with Limited Precipitation or Irrigation,” which was recorded and can be viewed at droughtresources.unl.edu and beef.unl.edu.

Berger describes the growth stages at which forages use water most efficiently, as well as how to incorporate forages into production systems when precipitation or irrigation water is in short supply.

He said there are many options available, including cool-season cereals, warm-season grasses, legumes, perennial cool-season grasses, and cool- and warm-season broadleaves. Each can fit in a producer’s system, depending on the needs.

A producer can select a forage by asking several questions: What are the goals? What class of livestock will be grazing or feeding (and what quality of feed is needed)? How much management is possible? When must the forage be fed or grazed? What is the soil type and fertility? What equipment is available? What will the subsequent land use be?

One of the major questions is how much water is available and when it is available. Forage crops vary widely in water-use efficiency, defined as pounds of herbage produced per inch of water applied.

Summer annuals, like foxtail millet and sorghum-sudan hybrids, tend to be the most water-use efficient, according to Berger. But the less water-efficient forages, including alfalfa, are not automatically disqualified. They might fit into some systems, depending on how much and when the precipitation is available.