

Ag Notes
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Clark Israelsen

IMPROVING PASTURE MANAGEMENT

An excellent irrigated pasture field day was presented last week in Rich County. Utah State University Extension, Western Region SARE, Utah Ag Experiment Station and USDA-Agricultural Research Service shared results of detailed research on high elevation pasture plots north of Randolph. Six grass/legume mixtures were established with variable amounts of irrigation water and three different levels of nitrogen fertilizer. Everyone who attended came home with well written research documents and an increased understanding of factors effecting grass production. Extra copies of the proceedings are available at the Cache County Extension office for those who have an interest.

The establishment and/or renovation of irrigated pastures seemed to generate a lot of interesting discussion. One presenter suggested that too often we treat our pastures as corrals to confine livestock instead of managing them as pastures to provide feed. If we want to make a profit from our pastures we need to put the same amount of effort into establishing and managing them as we do our other cultivated crops. Serious weed and fertility problems are generally the forgotten management issues. Failure to control weeds and maintain adequate fertility will always result in marginal pastures. It was suggested that attention to these two problems alone would result in an immediate increase in pasture production of 30 to 40 percent.

Good grazing systems tend to keep most weeds out of pastures. Pasture plants that are grazed too closely or too often will have shallower, sparser root systems than plants that are properly grazed. Roots of over grazed plants do not capture nutrients effectively nor take in water as readily and soon become victim to weeds that invade and take over. If a pasture is not large enough to support a given number of livestock, limit access to maintain leaf area, plant productivity, stand density and competitiveness with weeds. Many weeds can be controlled quite well if there is adequate competition from healthy grass plants. Pastures that have been over grazed can regain productivity, but it takes time and management.

Common weeds in newly seeded Utah pastures include dandelion, curly dock, shepherds purse, field bindweed, prickly lettuce, lambs quarter, kochia, tansy mustard, and broadleaf plantain. In addition, canadian thistle, bull thistle, white top, teasel, burdock, cocklebur, western salsify, and prostate knotweed are common broadleaf weeds in established pastures. Foxtail barley, downy brome (cheatgrass) and quackgrass are often grassy type weeds.

Repeated clipping and hand weeding can diminish some weed infestations. This weakens invading weeds by depleting root reserves and preventing further spread by seed production. Tillage can also be used to suppress weeds as part of a pasture renovation program, but is seldom feasible to manage weeds in a good pasture. If the weed problem occurs over the entire pasture, herbicides can be broadcast sprayed. Keep in mind, however, that most pasture herbicides will remove desirable legumes as well as weeds. Spot spraying weed patches may often be the preferred method of chemical control. A few common pasture herbicides include, 2,4-D amine,

Clarity, Escort, Curtail, Redeem, Tordon and Plateau. Herbicides are applied at various rates and times, depending on several factors. Always follow label directions and follow cautions and restrictions carefully. No single practice alone will produce or maintain weed-free pastures. An organized system that combines the appropriate preventative, cultural, mechanical and chemical measures for each pasture is required. Persistence is also needed.

The soil is a “bank” of nutrients for plant growth. An optimum balance of nutrients must be maintained in the soil so that pasture plants can make “withdrawals” for growth. “Deposits” are made when plant residue decomposes, manure is returned, nitrogen is fixed, or commercial fertilizer is applied.

A soil test from a certified lab is the best way to develop a fertilizer program for irrigated pastures. A routine test includes analysis of nitrogen, phosphorus, potassium, pH, salinity, lime and texture. Tests for micro-nutrients are also available. Local USU Extension offices have soil augers and instruction sheets available, explaining how to obtain soil samples and how to interpret results from the lab. It is impossible to develop a proper fertilizer program without a valid soil test.

Nitrogen is the plant nutrient required most by grass plants. An application of nitrogen, generally in the spring, will have a profound effect on pasture production. Subsequent applications later in the growing season are also beneficial. Pastures with a significant legume population require less commercial nitrogen fertilizer. This is because legumes have the ability to pull nitrogen from the atmosphere and make it available to plants. Phosphorus is particularly important for seedling growth in a new pasture. Where pasture forages are consumed by grazing and the manure is distributed evenly across the field, further commercial applications of phosphorus may not be needed for several years.

I personally appreciated the research information that was shared at the field day. Since we receive numerous calls each week, from small acreage owners to serious intensive grazers, the data will prove to be very helpful.