Use Cattle Behavior to Improve Grazing Management

When it comes to food preferences, cattle are a lot like people. They prefer the feeds and forages they ate when they were young. They like the things their mother showed them to eat as calves.

Fred Provenza, a professor at Utah State University Department of Rangeland Resources, found that exposing a calf to a feed it will encounter later in life makes the calf more willing to eat that feed as a mature animal. A very short exposure time is all that's needed.

What's more, if both the calf and its dam are fed the novel feed for a few hours for a week, the calf will eat more of this feed after it matures. For this to work, however, the mother must eat the feed along with the calf because she teaches her calf what to eat.

In one experiment, animals moved to a new pasture with strange, novel forage spent 25% more time foraging and ate 40% less compared to animals that had been raised on the same type of forage.

Provenza also found young cattle adapt better to eating new, novel feeds compared to mature animals. But, even young cattle, such as stockers, will perform better if they are moved from a familiar type of pasture to another pasture that contain similar forages.

If stockers or weaned calves have to be moved to a totally different type of pasture, it's best to move them into high-quality pasture. The worst scenario is to move animals from a poor pasture to another poor pasture with totally different forages. If the animal must be moved to another poor pasture, it should contain similar forages.

Provenza suggests that, in purchasing adult cows, buyers should make sure those cattle are from a ranch with forages similar to those on the buyer's ranch. Because older animals are less adaptable than younger animals, buying adult cows from another part of the country with totally different pastures isn't recommended.

Cows and calves also can be taught to eat less palatable forages by using high stocking densities for a short period of time. This forces the animals to eat their "broccoli" along with their "ice cream," so to speak, Provenza says. It also helps prevent less desirable plants from overtaking pastures.

Calves raised by mothers that eat the less palatable forage will still like to eat such feed when they are older. In fact, one approach to keep cattle out of riparian areas is to ensure the calf is exposed to, and eating, some of the less palatable plants with its mother. When it matures, it will be less motivated to eat the riparian forage.

Provenza also states that, like people, cattle don't like their food mixed together. Humans don't like their peas, ice cream and mashed potatoes mixed together. Neither do cattle. Research with dairy cows showed that cows gave 11% more milk when clover and grass were planted in separate rows instead of mixing the clover and grass seed together.

-- Temple Grandin, Colorado State University. For more information visit her Web site at: www.grandin.com
Arizona Rolls Out Animal ID Program

A voluntary Animal ID program, the Tri-National Livestock Health and Identification Consortium, will have a new member, as Arizona has joined with neighboring states Colorado and New Mexico, as well as two Mexican states. The program will eventually become mandatory.

The program, which includes radio frequency identification ear tags for cattle, is meant to allow the state to trace a diseased animal back through the food chain to its birthplace within 48 hours, allowing officials to launch investigations immediately and to quickly isolate other animals that may share the infection.

Data corresponding to the ear tags and other tracing technologies will be a jealously guarded secret, the state said, with access limited to the state veterinarian's office, and then only when an animal or meat products have been diagnosed as potentially infectious.

-- Pete Hisey at: www.Meatingplace.com

USDA Launches Web Site Focusing on the National Animal Identification System

WASHINGTON -The U.S. Department of Agriculture's Animal and Plant Health Inspection Service today announced the launch of a new Web site to inform stakeholders about the national animal identification system (NAIS). The Web site, available at http://www.usda.gov/nais is designed to be a one-stop resource to facts about NAIS.

"We hope our stakeholders will visit the site frequently to find out the latest news about the NAIS from a national perspective," said APHIS Administrator W. Ron DeHaven. "It will be updated regularly as new information becomes available."

In addition to providing national news, the site provides contact information for state and tribal animal health authorities. The states and tribes are responsible for providing each premises under their purview with a nationally unique identification number—the starting point of the NAIS. All states should be able to assign nationally unique premises identification numbers to locations where animals are managed or held by mid-2005.

Over time, APHIS plans to add to the new Web site resources targeted to specific species and industry-segment groups. Currently, NAIS working groups comprised of industry and government representatives have been established for cattle and bison, sheep, swine, poultry, horses, llamas and alpacas, deer and elk, and livestock markets and processors.


Composite Cattle Tour of Australia Being Organized

Composite cattle breeders are hoping to organize a July 28-August 6 tour to Australia. The tour will include discussions with producers and researchers, as well as visits to cattle operations, feedlot facilities and universities.

The tour's estimated cost, not including airfare and assuming at least 20 participants, is $2,180 AUD (about $1,665 U.S.) per person sharing twin accommodations. The fee covers all land transport within Australia, 7 nights of 3.5 to 4-star accommodations with the possibility of farm stay, daily breakfast, seven lunches and dinners, seminars, technical program, farm and herd visits, and accompaniment by an ag-tour professional for the duration of the program.

Those interested need to contact Debbie Pearson at 928/646-9113 Ext 12 by March 1. A deposit of $1,000 AUD (about $800 U.S.) will be required mid March.

-- Dave Schaefer, University of Arizona
Bottlebrush Squirreltail  
_Elymus elymoides_ (Raf.) Swezey ssp. Elymoides

**Description**

Growth habit: A small to medium, cool season, perennial bunchgrass, culms moderately clumped, mostly 5 to 25 inches tall.

Color: Bright to dark green, curing to yellow.

Leaves: Smooth to some soft hairs, prominent veins, 2 to 8 inches long and ½ to 1 ½ inches wide with a membranous ligule as the inner base.

Inflorescence: Spike with two to six flowered spikelets, usually 2 spikelets per node. Lemmas and glumes with long awns, up to 8 inches. The rachis disarticulates readily.

Season: Cool Season

Origin: Native

**Occurrence**

Widespread and locally abundant occurring in all Arizona counties from 2,500 to over 10,000 feet. Occurs on open areas into open woodlands. The plant responds to cool season moisture and can be abundant in good years and scarce after winter droughts.

**Forage Value**

As a cool season bunchgrass, squirreltail is eaten in the spring when growth is young and before maturity. The mature awns are quite stiff and can penetrate the flesh of grazing animals causing injury to soft tissue. Forage value is considered good for larger grazing animals when the plants are young and fair to poor after plants mature depending on whether or not the inflorescence have broken off.

**Grazing Management**

As with other cool season grasses, squirreltail will be grazed readily when it first greens up in the spring. If early spring grazing occurs, some seed stalks should be left for seed production and to insure the plants are not continually grazed throughout the growing season. Spring ranges should be rested periodically or grazing limited to alternating parts of the growing season.

**Utilization Concepts and Upcoming Workshops**

Measurement of utilization is a commonly used tool in rangeland management. Utilization data is used to 1) identify use patterns, 2) determine what plant species are used as forage, 3) estimate when species are used as forage, 4) help establish cause and effects of trend, 5) aid in adjusting stocking rates when combined with other monitoring data.

Utilization is defined by the Society for Range Management as “The proportion of the current year’s biomass production which is removed or damaged by grazing animals.” Utilization workshops are planned for this spring that will focus on the major considerations related to utilization measurement and interpretation. In addition to covering basic utilization concepts, field time will be allowed for demonstrating and practicing several methods of utilization measurements. Registration information will be mailed out during March. The workshops are scheduled for:

- April 5, Greenlee County
- April 6, Stockton Pass (Graham/Cochise)
- April 7, Winkelman area

**Web Page to View Newsletters**

[www.cals.arizona.edu/santacruz](http://www.cals.arizona.edu/santacruz)

When you open this page, click on Newsletters. The webpage is available now, but the newsletter page is not. It should be ready in a week or two.
February 12, 2005 – The early to mid-winter period of November through January was exceptionally wet for most of Arizona compared to the last several winter seasons. Portions of northwest Arizona received up to 300% of average precipitation during December. Southeast Arizona seemed to miss out in these extremely wet conditions and was only slightly above normal during this same period. Precipitation amounts were from 130% to 150% of normal for the period of November through January. Early season snowpack levels were above normal from several cold storm systems during December, but levels have since fallen quickly. Several weeks of above normal temperatures in January and the passage of several warm and wet storm systems in late January and early February have eroded established snowpacks.

Forecasts for spring (March-April-May) from the Climate Prediction Center predict that the southwest U.S. will see above normal temperatures with a slight chance of above normal precipitation. Weak El Nino conditions are present in the equatorial Pacific region and are forecasted to weaken further through the spring. Current above normal sea-surface temperatures associated with the El Nino event appear to be too weak to impact weather conditions in southern Arizona leading to a lower confidence precipitation forecast. The lack of strong El Nino or La Nina conditions in the tropical Pacific reduces the signal typically used to make higher confidence precipitation forecasts for the southwest U.S. The higher confidence temperature forecast is based on the upward trend in regional temperatures continuing.

(More information at http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/)

Normal to above normal fall precipitation helped to slightly improve drought conditions as reflected in the improving PDSI values. Long-term drought conditions are reflected in the consistently negative PDSI values extending back to the 2001-2002 winter season (line with diamonds).
Average December temperatures were very close to normal at most locations across SE Arizona. Local precipitation amounts were variable across the region with most stations receiving 70-80% of normal. This is a marked improvement over precipitation amounts experienced in December of 2003 when some SE Arizona locations received less than 15% of normal precipitation for the month.

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SPI values show that cumulative precipitation amounts extending back six months are above normal with respect to the long-term record. January precipitation amounts were over one standard deviation above normal (SPI for Jan: >1). Longer-term windows (36-48 mos.) still show that cumulative precipitation amounts are way below (>1.5 standard deviations) normal reflecting the extended drought conditions of the last several years.

The March-April-May seasonal forecast from the Climate Prediction Center shows a slight chance of above normal precipitation over Arizona and New Mexico. The above normal precipitation forecast is based on weak El Nino conditions in the Pacific Ocean and a possible continued trend in wet winter conditions. Overall confidence in the forecast is low due to the weakness of the El Nino event. The lack of strong El Nino or La Nina conditions makes a high confidence precipitation forecast for the southwest U.S. region difficult.
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