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Dairy/Livestock

Rancher, BLM collaborate on research

By JOHN O'CONNELL
Capital Press

HAMMETT, Idaho — The Bureau of Land Management and a local ranching family have completed the first three-year cycle of a planned nine-year collaborative study using management-intensive grazing to restore native perennial plants to landscapes where they've been choked out by invasive weeds.

The terrain along Interstate 84 from Twin Falls to Mountain Home is covered by invasive annual cheatgrass and medusahead, which overwhelm native plants and burn readily.

Wildfires often force ranchers off important pasture for a couple of years until vegetation regrows.

Several years ago, ranchers Bob Howard, John McGrew and Steve Damele started a long-term demonstration proj-



Bureau of Land Management

Rangeland specialists use a transect to evaluate species composition on range near Hammett, Idaho. The Bureau of Land Management and rancher Bob Howard are partnering on a study to determine how management-intensive grazing may be used to reduce pressure from invasive annual plants and reduce fire risk.

ect on their private land, hoping to convince the BLM of the merits of increasing grazing densities on public allotments to improve rangeland health, thereby decreasing the preva-

lence of fires.

In 2012, the ranchers hired range specialists with Wilder-based Intermountain Rangeland Consultants to document their progress with

data and scientific analysis.

Their consultant, Dan Ogle, explained the ranchers have been grazing land at higher densities in the winter and spring for short durations, feeding on annual invasive plants when they're green and provide good forage, but before native perennials have emerged.

Ogle regularly checks improvements in range health by evaluating "transects," consisting of three 100-foot lines stretching in different directions. The lines include 50 points, at which Ogle records the species composition throughout the plant canopy.

"They do have some improvements in perennials at many of the sites they were monitoring," Ogle said.

On Damele's land, Ogle has noticed growth in populations of a native "species of concern" called slickspot

peppergrass. Though he acknowledges increased precipitation during recent years could account for some of the plant's gains, he said it's clear intensive grazing hasn't caused damage.

Ogle also has data from a transect on Howard's private land showing perennials increased from 16 percent of the biomass in 2013 to 20 percent in 2017. He's been especially pleased by the spreading of native Sandberg bluegrass.

In 2014, the BLM and the Howard family partnered on a more in-depth version of the study on the BLM's Rattlesnake Seeding Allotment.

The public study encompasses 48 transects.

BLM Ecologist Joe Sirot-nak said the partners in the project were to meet on Dec. 6 to evaluate data from the first full three-year rotation of the Rattlesnake project.

Rabobank: Expect more competition in animal protein markets

By CAROL RYAN DUMAS
Capital Press

Global production of animal protein will expand again in 2018, bringing increased competition, Rabobank analysts reported in their 2018 animal protein outlook report.

The expansion will happen across all species and around all regions, Justin Sherrard, a Rabobank global strategist, said in a podcast accompanying the report.

The analysts project total animal protein production will be up just over 4.5 million tons, about 1.75 percent year over year, bringing another year of expansion above the 10 year average, he said.

The increase should be no surprise. Economic conditions and consumer confidence are ticking up, feed costs remain relatively low and the cycle in cattle and salmon continue to favor expansion, he said.

"What is remarkable about another year of expansion is the focus it will bring on trade. Trade is the only way to deal with ongoing production increases," he said.

But it's becoming more complicated than ever before. Old trade agreements are being renegotiated, and new trade agreements are proving hard to close, he said.

"So we find ourselves in a situation where trade is going to deliver more competition — between species, between trading regions — more volatility and more uncertainty," he said.

But it will also bring opportunities for those animal protein supply chains that are well connected, strong, agile and innovative, he said.

The analysts are also expecting more consolidation in most regions, changes in the retail landscape — such as online markets — that will flow back through the supply chain and increased use of technology, particularly data-driven technology, throughout the supply chain.

They also anticipate more discussion and more focus on alternative proteins. Not because they're capturing a large share of the growth in the protein market, which they're not at the moment, but because they are capturing consumer and investor interest, he said.

The expectation in North America is for a sizable increase in production across all species, with a strong 3 percent growth in total protein supplies, said Don Close, Rabobank senior analyst.

"We think beef production will be up a strong 3 (percent) to possibly as much as 4 percent in 2018.

There's simply more cattle supply and more cattle on feed. Expansion of the cow herd is expected to continue although at a much slower pace than the last three years, he said.

On the pork side, the analysts are looking for a 3.8 percent increase in production in North America. That increase is largely a reflection of the additional pork processing facilities added in 2017, with one more plant to be completed in 2018, he said.

At the slow end of the North American production curve in the coming year is broiler production, expected to increase 1.8 percent.

That slowdown is largely due to smaller, slower-growing birds and a slowdown in production and tonnage as more and more firms go antibiotic-free, he said.

Globally, aquaculture continues to drive seafood supply growth, with Asia being the most important producer of farmed seafood. That growth in both 2017 and 2018 is estimated at 3 percent to 4 percent.

Palate plays a key role in livestock diets

By DOUG WARNOCK
For the Capital Press

When wild and domestic animals forage on rich landscapes that have many and varied plants, they generally have functionally good relationships with their social and biophysical environments, as well as good nutritional results.

The outcome is less successful when they are on monoculture pastures and near zero when in feedlots, according to studies reported by Fred Provenza, Department of Wildland Resources at Utah State University, and his associates. These scientists reviewed the functionality of palatability where the palate is in touch with the needs of the body.

Herbivores are free to choose from a wide variety of physically and biochemically

unique species of plants when on highly diverse grasslands. The various rangelands on which they graze may offer a number of different grasses, forbs, shrubs and trees.

These plants produce thousands of different primary and secondary compounds. The primary compounds include energy, protein, minerals and vitamins, which are important for the nutritional balance they provide.

The secondary compounds include three main groups of chemicals: alkaloids, terpenes and polyphenols. These chemicals can be either beneficial or toxic, depending on their form and pervarious interactions with other compounds in the diet.

During the past four decades, researchers have learned much about the ability of herbivores to select the appropriate plants from their environment to satisfy

Greener Pastures

Doug Warnock



their nutritional and chemical needs and maintain an intake that provides health and well-being. The research findings show that a combination of flavor-feedback mechanisms, the physical and chemical characteristics of the forages at hand and social interactions across generations can enable health through nutrition.

Also learned was that herbivores are fallible and can, under certain conditions, select forages that decrease performance and cause toxicosis.

The animals' inability to do this is often due to mismanagement on the part of the humans in charge. Moving animals to unfamiliar environments negates the multi-generational knowl-

edge developed about specific areas. Over-stocking can limit the amount of nutritious forages available and increase the number of toxic plants consumed, causing problems from toxicities.

Flavor feedback connects animals with specific landscapes or plant communities. Primary and secondary compounds from the consumed plants interact with the animals' cells and organs in a dynamic network of communication that guides the individual in food selection. The herbivore's complex body includes varied sensory receptors that convey information about the various foods being consumed by the animal.

A normally functioning palate is in tune with the needs of the body and guides the animal in selecting forage plants that will meet its requirements for energy, protein, minerals and vitamins. Also, it will lead

to self-medication that will foster the animal's health and well-being. Animals begin learning in utero to associate the flavors of foods in mother's diet with their consequences after digestion. After birth, they learn which foods to eat or avoid from foraging with mother.

How does this relate to the availability and selection of food for humans? Information about human food sources, processing and diet selection, as related to nutritionally rich landscapes, is also part of this report. That discussion will be included in a later issue.

Doug Warnock, retired from Washington State University Extension, lives on a ranch in the Touchet River Valley where he consults and writes on grazing management. He can be contacted at dwarnockgreenerpastures@gmail.com.

Cash dairy markets break records; November milk output goes up

By LEE MIELKE
For the Capital Press

Records were broken in last week's cash dairy markets. CME block Cheddar fell to \$1.4450 per pound on Dec. 12 but then rallied and closed Friday at \$1.53, up 5 1/2-cents on the week and reversed six weeks of decline, but was 27 cents below a year ago.

The barrels closed at \$1.66, down a penny, 4 cents below a year ago, and 13 cents above the blocks after setting a record inverted spread of 22 1/2-cents last Tuesday. They also set a record single day volume Monday, selling 36 cars, highest since daily trading started Sept. 1, 1998, and surpassed the previous high of 35 loads set June 18, 2010, according to FC Stone. A total of 97 cars were sold last week at the CME and just 7 of block.

Dairy Markets

Lee Mielke



The blocks lost 4 cents Monday, as traders anticipated Tuesday morning's Global Dairy Trade auction and the afternoon's November Milk Production report. They gave up another 4 cents Tuesday, dipping to \$1.45, the lowest block price since March 29, 2017.

The barrels lost 8 cents Monday and plunged a dime Tuesday, to \$1.48, lowest barrel since July 27, 2017, but narrowed the spread to 3 cents above the blocks, a spread that typically runs 3-5 cents below the blocks.

Dairy Market News reports that milk remains readily available to Midwestern cheese plants and some cheese producers warned that

only heavily discounted milk offers will be considered for the remainder of 2017.

Western cheese output is ongoing as milk is also plentiful. Processors are hesitant to take on additional milk due to the weakness of cheese prices and ample supplies.

Cash butter slipped to \$2.19 per pound last Monday, then reversed gears and slowly climbed to \$2.26 Thursday, but saw a Friday close at \$2.2450, up 2 1/2-cents on the week and 5 1/2-cents above a year ago when it jumped 12 1/2-cents. Forty cars traded hands last week.

The butter dropped 4 1/2-cents Monday but gained a penny Tuesday, inching back to \$2.21 per pound.

Central region butter producers report that orders are back in line with expectations following a slow start to the

month. Cream remains abundant, but the market tone remains resilient.

Western butter makers report that demand is following typical seasonal patterns. Inventories have been drawn down, but cream is becoming less expensive and readily available.

Cash Grade A nonfat dry milk also set a record last week, unfortunately a record low of 65 3/4-cents per pound, down 2 1/2-cents on the week and 36 1/4-cents below a year ago.

November milk up

November milk output was up for the 47th consecutive month in the U.S., totaling 16.2 billion pounds in the top 23 states, according to preliminary USDA data, up just 1.1 percent from November 2016. The 50-state total at 17.3 billion pounds,

was up 1.0 percent. Revisions lowered the original October 23-state estimate by 27 million pounds, now put at 16.7 billion pounds, up 1.3 percent from a year ago.

Milk cow numbers totaled 8.73 million head in the 23 states, unchanged from October but 57,000 more than a year ago. The 50-state total, at 9.4 million head, was unchanged from October but 53,000 above a year ago. Output per cow averaged 1,861 pounds in the 23 states, up 9 pounds.

California output trailed its year ago data for the 11th consecutive month, down 34 million pounds or 1.1 percent, due to 14,000 fewer cows milked and a 5 pound loss per cow. Wisconsin was up just 0.9 percent, on a 20-pound gain per cow but cow numbers were down 1,000 head from a year ago.



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