Study finds off-season cattle grazing can help control cheatgrass

By SIERRA DAWN McCLAIN
Capital Press

RENO, Nev. — Scientists at the University of Nevada-Reno have found that targeted cattle grazing during the dormant season can help control cheatgrass, an invasive annual grass responsible for increasing wildfire danger in the Intermountain West.

Researchers say cheatgrass is an "ecological threat" in the Western U.S., dominating more than 20% of the sagebrush steppe and covering about 11,000 square miles of the Great Basin, according to a new study in Elsevier's journal Rangeland Ecology and Management.

"We're facing challenges right now in sagebrush rangelands the likes of which nobody's ever seen," Chad Boyd, a rangeland scientist with USDA's Agricultural Research Service, told the Capital Press. "I mean, when you look at the annual grass problem, when you look at the tens upon millions of acres that it impacts West-wide, nobody's ever faced a problem that big."

University of Nevada-Reno

Cattle grazing on cheatgrass.

To combat infestation, researchers have been studying use of off-season targeted cattle grazing as a tool for reducing cheatgrass.

University of Nevada-Reno researchers have found that an effective method for getting cattle to graze in cheatgrass-invaded systems involves setting up supplemental protein feeding stations near areas with fine fuel buildup. Drawn to the feeding stations, cattle also eat nearby cheatgrass.

According to Barry Perryman, professor of rangeland sciences at the university and an author of the study, putting out protein supplements in the fall and early winter can attract cattle to locations dominated by cheatgrass. The cattle then reduce standing fine-fuel biomass by more than 50%, he said. That makes room for native grasses to grow.

In turn, this can potentially reduce wildfire danger.

"Reducing the amount of cheatgrass fuel carryover may effectively reduce the amount of total fuel available during the next year's fire season," said Perryman. "If several hundred pounds per acre of cheatgrass can be removed during the fall through cattle grazing, that is several hundred pounds that will not be added to the next year's fuel load."

Perryman's conclusions build on previous studies.

One small-scale study showed that targeted grazing during spring can reduce above-ground biomass by 80% to 90%, resulting in reduced flame length and rate of fire spread the following October. Another study, done on sagebrush and native perennial grass plant communities, found that reducing biomass by 40% to 60% through winter grazing reduced flame height, rate of spread and area burned compared to a control area that was not grazed.

For the new study, Perryman and the scientists he worked with used liquid protein supplements in October and November from 2014 to 2017 at a production-scale working ranch with a herd size ranging from 650 to 1,200 head of cattle.

The pasture the researchers experimented on was a mixture of rangeland and abandoned farmland heavily invaded by cheatgrass.

The study found that protein supplements can successfully attract cattle away from water toward cheatgrass-infested areas on large pastures.

Where cattle grazed along the transect line of the supplemental feeding stations, their consumption of cheatgrass averaged 48% to 81%.

Besides Perryman, other authors on the study included Mitchell Stephenson, who was a post-doctoral student of Perryman's during the study and is now a range management specialist at the University of Nebraska-Lincoln; Brad Schultz, professor and extension educator at the University of Nevada-Reno; and Chad Boyd, Kirk Davies and Tony Svejcar, rangeland scientists with USDA.

Buckwheat handler expects strong demand, calls for more acres of the crop

By MATTHEW WEAVER
Capital Press

War between Russia and Ukraine has thrown buckwheat supplies "upside down," says a Washington grain handler, who hopes to increase production of the crop in the Columbia Basin to meet demand.

Russia and Ukraine are the No. 1 and No. 3 production countries for buckwheat in the world, with China No. 2, said Darrel Otness, owner of Washington Producers Inc. in Basin City, Wash.

The company contracts with farmers to grow buckwheat.

About 99% of Otness' customers are in Japan, with a small number from South Korea. Russia has stopped exporting buckwheat to Japan, negatively impacting Otness' customers.

"They need to buy more buckwheat, and we are looking for more buckwheat," he said. "It's hard to find buckwheat with all of the crops being so high-priced."

Buckwheat is typically grown as a second crop in the Columbia Basin, Otness said — after wheat, peas, early sweet corn and the first cut of timothy hay.

"That's when it works economically and agronomically for the grower," he said.

Rachel Breslauer/WSU

With top buckwheat-producing countries Russia and Ukraine at war, a Washington grain handler hopes for more production in the Columbia Basin to meet demand.

The Washington Grain Commission recommends not following buckwheat with a wheat crop due to concerns about volunteer plants in the wheat.

Otness works with 40 to 50 farmers, who raise 8,000 to 10,000 acres of buckwheat in their crop rotations. He estimates there are 12,000 to 14,000 total acres in Oregon and Washington.

"Now that demand is stronger and everyone's fighting for acres, we're looking for more acres of buckwheat," he said.

Otness is looking for "a couple thousand" more acres.

He's concerned about cool spring weather delays on other crops, possibly shortening the buckwheat production period, or preventing planting altogether.

Buckwheat prices have increased from 25 cents per pound to 30 cents per pound in the last five years.

"It's a very profitable crop because it uses so little inputs," Otness said. "There's no sprays you can put on it for herbicides. You can spray grass weeds out, but it doesn't need any other chemical sprays, very little fertilizer usage. So it is quite economical as a second crop."

Contact Otness at 509-521-7535 or d.otness@wapro.us for more information. He recommends texting or emailing first.

"A lot of guys have seen their neighbors raise it and they're curious about it," he said.

He expects Ukraine to request buckwheat for food aid, noting it's a staple there.

"I think we're going to have a whole new demand when this war situation gets squared away," Otness said. "I honestly think we won't be able to get enough buckwheat for the next five to 10 years."