



THE NEW FOOTHILL RANCHER

...Practical Information for Foothill Livestock Producers

Dan Macon, Livestock and Natural Resources Advisor

Placer—Nevada—Sutter—Yuba Counties



October 2021

Placer County

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Drought Conditions Persist

U.S. Drought Monitor
California



October 5, 2021
(Released Thursday, Oct. 7, 2021)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	0.00	100.00	100.00	93.93	87.88	45.66
Last Week (8-28-2021)	0.00	100.00	100.00	93.93	87.88	45.66
3 Months Ago (7-27-2021)	0.00	100.00	100.00	94.73	85.44	33.32
Start of Calendar Year (1-1-2021)	0.00	100.00	95.17	74.34	33.75	1.19
Start of Water Year (7-1-2020)	0.00	100.00	100.00	93.93	87.88	45.66
One Year Ago (10-6-2020)	15.40	94.90	87.54	35.61	12.74	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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droughtmonitor.unl.edu

Looking at the most recent California drought map, all of Yuba and Sutter Counties, along with the portions of Placer and Nevada Counties west of the Sierra crest, are in “Exceptional Drought.” The eastern portions of Placer and Nevada, according to the drought monitor, is in slightly better shape

(although one wouldn’t know it on the ground – the east slope is as dry as I’ve ever seen). As we head into fall, drought continues to be a serious concern for livestock producers.

By now, most of us have implemented a number of drought strategies. We’ve sold livestock. We’ve looked for alternative feed resources. We’ve weaned calves or lambs early. We’ve crossed our fingers for a germinating rain in October!

As irrigation season wraps up in the foothills (and it wrapped up earlier than normal in some districts), we should probably start thinking about next year. Reservoir storage throughout the region is a huge concern going into the wet season - another dry year, or a below-normal snowpack, could mean less water (and/or a shorter irrigation season) in 2022. The State’s curtailment of water rights also means that some of our local water districts may not be able to capture early runoff. In our small operation, we’ve started talking about how we would respond to a reduction in our irrigation water next summer – would we reduce our numbers even further? Would we wean extra early? We haven’t figured out the answers yet, but we have started the conversation.

To help with these conversations, I would encourage you to check out our Drought Decision Support Tool ([available at this link](#)), or I can send you a hard copy. This tool can help you think through your options and consider the economic, genetic, financial, ecological, and human consequences of your drought plans. We’re also putting together a drought resilience workshop in Nevada County in early November (see the workshop schedule for details).

Consider ammoniating rice straw for low cost forage

Josh Davy – UC Livestock Advisor, Betsy Karle – UC Dairy Advisor, Morgan Doran – UC Livestock Advisor, Dan Macon – UC Livestock Advisor

Low cost supplemental feed is almost unheard of this fall, but in the face of drought is more necessary than ever. This is especially important as we are seeing running age cows selling at cull cow prices due to a lack of feed across the north state. One option available for a low-cost feed is ammoniated rice straw. Multiple years of research into improving the feeding value of rice straw have found this to be a cost-effective approach to increase both intake and the performance of cattle on this traditionally low-quality forage.

Table 1 shows the intake, gain, and forage quality differences between ammoniated and traditional straw. While rice straw is typically considered a supplement for dry cows, we used weaned steers in this trial in order to evaluate weight gain differences. Not only did the cattle consume 20% more of the straw (fed free choice) when it was ammoniated, they also performed considerably better on it, gaining 0.6 lbs/day more with the ammoniated straw as compared to untreated.



Table 1. Gain and forage quality comparison of rice straw

<i>Measure</i>	<i>Control straw</i>	<i>Ammoniated straw</i>
Average daily gain, lbs	1.1	1.7
Intake lbs/hd/d	9.6	12.0
Crude protein, %	3.98	8.42
total digestible nutrients, %	50.3	50.6
Neutral detergent fiber, %	58.4	58

Forage testing did not show that the treatment increased the energy or digestion of the straw, but it did more than double the protein value of the ammoniated rice straw. It appears that the added protein value increased palatability and likely the rumen microbes’ ability to utilize the straw. Not only did the cattle consume more ammoniated straw, but they likely did a better job at digesting the rice straw based on the increased gain. This effect was seen similarly over multiple years of feeding trials.

The ammoniation process involves loosely tarping the stack of straw, making sure to weight the bottom of the tarp with tires or other heavy items. Tarping the stack loosely will allow the gas to dissipate around the stack. This has been found to be important in previous trial work. Once the stack is tarped, your local fertilizer company can apply the ammonia to the stack at a rate of 2% by weight of the straw. Once the ammonia is applied, wait 30 days to allow absorption around the stack before feeding.

A recent price check showed the cost of ammoniation is \$15.90 per ton of rice straw; a modest cost in light of the improvement to the straw. Estimating rice straw at \$50 per ton, the added cost of ammonia would bring the supplement to roughly \$66 a ton. At the least, this is an option that can help to stretch out supplies of valuable hay that’s already in the barn

Disaster Livestock Access Pass Program in the Works for the Foothills

Over the last eight months, a group of ranchers from Placer, Nevada, and Yuba Counties, along with the agricultural commissioners from each county, have been working on a disaster livestock access program for commercial ranching operations. Patterned after a program developed in Butte County, this program will coordinate with local emergency responders to provide access for livestock producers to care for animals during a disaster. Currently, the elements of the project include:

1. Who Qualifies? To qualify for a Livestock Access Pass, a ranching operation must provide the following information via an application submitted to each county agricultural department:
 - A. Verification that they own a minimum of 50 head of livestock (including offspring in utero) (e.g., 25 pregnant cows or ewes), a minimum of 100 poultry, or a minimum of 50 beehives. Verification may be made through the application and/or inspection by the County Agricultural Department or UCCE.
 - B. A list of locations (by APN and/or physical address) where livestock may be grazing.
 - C. Certification of completion of fire safety training (see below).
2. Fire Safety Training for Ranchers: Livestock Access Pass participants will be required to complete a 4-hour training program organized by UCCE and CALFIRE. Continuing education or re-certification will be required each year. Ranching operations may work with ancillary services (like veterinarians, livestock haulers, etc.) to participate in training. Training sessions will be offered in late October in Nevada and Yuba Counties (see below).
3. Livestock Access Pass Cards and Certification List: Livestock Access Pass cards will be issued and current lists of pass holders will be maintained by the County Agricultural Department in each county. Each qualified operation is eligible to obtain up to three cards, provided each card holder has completed the training outlined above. Since many ranches have operations in more than one county, Placer, Nevada, and Yuba Counties will recognize the Livestock Access Pass cards issued by each county (and will share certification lists).

Livestock Access Pass cards are applied for by and distributed to ranchers before a disaster. The application process is designed to confirm that the cardholder is a bona fide agricultural owner-operator or employee whose services are essential to providing protection for livestock. Individuals who acquire the Livestock Access Pass should be key personnel who have a working knowledge of the agricultural property, including access to irrigation systems, ranch equipment, and other essential infrastructure. They are aware of or have been trained in emergency procedures and understand that their role is to support the agricultural operation, not to fight fire or act as first responders during disaster.

The cards do not necessarily mean the cardholder will be able to pass through road closures to get to their farm or ranch. If there is imminent danger, front-line emergency personnel are empowered to use discretion when it comes to protecting emergency crews and the public from unnecessary exposure to risk. However, in those cases when the boundaries of the closure area include ranch land not deemed at imminent risk, the cards should allow cardholder access to agricultural property.

To register for the program, complete this survey: <https://surveys.ucanr.edu/survey.cfm?surveynumber=35295>. We will be offering two more 4-hour training sessions: You must register for a training session separately from the program registration.

- Monday, October 25 (1-5pm) – Nevada County Board of Supervisors Chambers, Rood Government Center, 950 Maidu Ave, Nevada City, CA
- Wednesday, October 27 (8:30am-12:30pm) – UC Sierra Foothill Research and Extension Center, 8279 Scott Forbes Rd, Browns Valley, CA

Training will also be offered in Spring 2022.

Bonding Livestock Guardian Dogs with Cattle

Livestock producers from Southern Europe to Central Asia have long used livestock guardian dogs (LGDs) to protect livestock - including cattle - from predators like wolves and European brown bears (the continental version of our grizzly). Here in the United States, sheep and goat producers have been using these dogs for nearly half a century with good success. U.S. cattle producers, on the other hand, don't have much experience with LGDs. But with the return of state-endangered gray wolves to California (three packs are currently established and transient wolves periodically move through), interest in non-lethal livestock protection tools - including LGDs - is growing amongst cattle producers.

Along with several of my UCCE colleagues, I received a small grant from the Rustici Rangeland and Cattle Endowment at UC Davis to demonstrate how to bond a LGD with cattle. Likely Land and Livestock in Modoc County offered to collaborate with us, and in August, we found a pup! We delivered the pup (named "Sam" by the Flournoy family) and the bonding equipment to the ranch.

The bonding process is critical to the success of any LGD. When pups are 8-20 weeks of age, their brains are especially receptive to forming social bonds - if you've had a pet or herding dog, you'll know that this period is when we try to socialize the pup by exposing it to all sorts of situations and people. With a LGD pup, this period is crucial for creating a bond between dog and livestock. Having used LGDs in my own sheep operation for 15 years, I seem to learn something new every time I start a pup.



The ranch provided seven small calves for the bonding process. The calves are in a small irrigated pasture grazing and being hand-fed grain. Size-wise, they aren't much larger than the rams that Sam had been with. To make sure Sam stays with the calves, we cut the pasture in half using electro-net fencing (including along the perimeter fence) - the initial bonding pen is about one acre in size. We also built a small 8' x 8' escape pen from wire panels where he can go if he feels threatened by the calves. Upon completing the fencing and pen, we fed Sam and made sure that he saw the calves (and vice versa). After the first day, Sam was sleeping in the middle of the calves - a great sign! We still have a long road ahead, but the first steps have all been positive! The calves appear to be bonding with Sam, as well.

During this initial phase, we'll will observe Sam on a regular basis from a distance for evidence of prey drive, submissive behavior towards livestock, and a calm temperament. While some things like chasing stock can be corrected if dealt with sternly and immediately, other things like dominant behavior towards livestock is more difficult to change in a pup. Pups tend to be easily excited when humans are with them, but when observed from a distance he should slowly approach livestock and remain calm unless he is alerted to a predator or unknown animal at their location. The livestock should remain calm, as well.

As part of this project, we've developed a guide to help producers bond LGDs with their livestock (and vice versa). You can check out this guide, along with a guide on selecting a LGD puppy, here: https://ucanr.edu/sites/placernevadasmallfarms/Livestock/Livestock_and_Predators/

Upcoming Workshops

Date / Time	Topic	Location
Oct 25, 2021 1p-5p	<i>Nevada County Livestock Access Pass Training</i> To attend this training, please register for the Placer-Nevada-Yuba Livestock Access Pass program at https://surveys.ucanr.edu/survey.cfm?surveynumber=35295	Rood Center, Nevada City, CA
Oct 27, 2021 8:30a-12:30p	<i>Yuba County Livestock Access Pass Training</i> To attend this training, please register for the Placer-Nevada-Yuba Livestock Access Pass program at https://surveys.ucanr.edu/survey.cfm?surveynumber=35295	Sierra Foothill REC, Browns Valley, CA
Nov 8, 2021	<i>Beyond the Drought – Building Resilient Ranches</i> Get tools to improve the drought resiliency of your ranching operation! Topics include forage planning, early weaning strategies, insurance and cost-share programs, and water conservation strategies. See attached agenda for details! <i>Sponsored by Nevada Irrigation District and Nevada County Resource Conservation District</i> Cost: \$10/person (includes lunch) Register at: https://surveys.ucanr.edu/survey.cfm?surveynumber=35875	Madelyn Helling Library, Nevada City, CA
Dec 8, 2021	<i>Sheep Business Basics (see Shepherd Skills Flyer)</i>	Webinar – via Zoom
Jan 13, 2022	<i>Small Ruminant Health (see Shepherd Skills Flyer)</i>	Webinar – via Zoom
Jan 15, 2022	<i>Sheep Husbandry Field Day (see Shepherd Skills Flyer)</i>	Auburn, CA
Mar 5, 2022	<i>Pasture Lambing Field Day (see Shepherd Skills Flyer)</i>	Auburn, CA
Mar 19, 2022	<i>Livestock Guardian Dog Field Day</i> Learn about puppy selection, bonding techniques, dog health and nutrition, and troubleshooting LGD problems. Suitable for all livestock producers! Rain or shine! Cost: \$10/person Register at: https://surveys.ucanr.edu/survey.cfm?surveynumber=35876	Auburn, CA

Stay Tuned – Rancher's Wildfire Field Day coming in March 2022!

We are planning a Rancher's Wildfire Field Day in March at the UC Sierra Foothill Research and Extension Center in Browns Valley! Tentative topics include protecting ranch infrastructure, fire tools every ranch should have, fire behavior basics, evacuation vs. sheltering in place, and fire season outlook.





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Beyond the Drought – Building Resilient Ranches

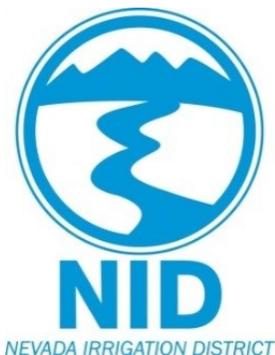
November 8, 2021 – 8:30am – 1:30pm (includes lunch)

Madelyn Helling Library

980 Helling Way, Nevada City, CA (Rood Government Center)

TENTATIVE AGENDA

- 8:30a Welcome and Introductions – Dan Macon, UCCE
- 8:45a Forage: Developing your 12-month Forage Calendar and Predicting Forage Production – Grace Woodmansee, UCCE; Dr. Leslie Roche, UC Rangelands
- 9:30a Genetics: Can Early Weaning Help Maintain your Genetic Base AND Conserve Forage? – Dan Macon
- 10:00a Break
- 10:10a PRF Insurance - A Tool for Managing Financial Risk – Jim Vann, WSR Insurance Services
- 10:50a Investing in the Future
 - Cost Share Programs: Developing Stock Water Systems & New Programs – Natural Resources Conservation Service and Farm Service Agency
 - Irrigation Efficiency for Irrigated Pasture – Nevada Irrigation District
 - Irrigated Pasture Productivity – DJ Eastburn, UC Rangelands
 - Drought Strategies – Dr. Leslie Roche
- 12:00p Coping with Stress – Group Discussion
- 12:15p Lunch (sponsored by NID and Nevada County RCD)
- 1:30p Adjourn





Shepherd Skills Workshop Series



2021-22 Workshop Schedule

Date(s) & Time	Topic(s) and Activities
Location December 8, 2021 6:30 p.m. – 8:30 p.m. Via Zoom Cost: \$5/person	<u>Sheep Business Basics Webinar</u> Learn the basics about the business side of raising sheep! We'll start with a panel discussion of experienced California producers, followed by a presentation on the basics of economic analysis applied to sheep production. This workshop is suitable for all livestock producers! Register at: https://surveys.ucanr.edu/survey.cfm?surveynumber=35877
January 13, 2022 6:30 p.m. – 8:00 p.m. Via Zoom Cost: \$5/person	<u>Small Ruminant Health Webinar</u> Join Sheep and Goat Extension Veterinarian Dr. Rosie Busch for an overview of sheep and goat health management. Topics will include vaccination programs, parasite control, and common diseases. Register at: https://surveys.ucanr.edu/survey.cfm?surveynumber=35878
January 15, 2022 8:00 a.m. – 12:00 p.m. Flying Mule Sheep Co. – Auburn, CA Cost: \$10/person	<u>Sheep Husbandry Field Day</u> This hands-on workshop will include information about vaccination programs, ewe management (including ultrasound pregnancy detection), ewe nutrition, foot health, lambing preparation, and other general husbandry topics. Rain or shine! Register at: https://surveys.ucanr.edu/survey.cfm?surveynumber=35880
March 5, 2022 8:30 a.m. – 12:30 p.m. Flying Mule Sheep Co. – Auburn, CA Cost: \$10/person	<u>Pasture Lambing Field Day</u> This hands-on workshop will cover pasture lambing management, including ewe and lamb nutrition, lambing problems, record-keeping, and predator protection. Come prepared to handle and process new lambs! Rain or shine! Register at: https://surveys.ucanr.edu/survey.cfm?surveynumber=35879
March 19, 2022 8:30 a.m. – 12:30 p.m. Flying Mule Sheep Co. – Auburn, CA Cost: \$10/person	<u>Livestock Guardian Dog Field Day</u> Learn about puppy selection, bonding techniques, dog health and nutrition, and troubleshooting LGD problems. Rain or shine! Register at: https://surveys.ucanr.edu/survey.cfm?surveynumber=35876

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The Sheep Stuff Ewe Should Know Podcast – Not Just For Shepherders!

Be sure to check out my weekly podcast! Sheep Stuff Ewe Should Know is available on [Spotify](#) and Apple Podcasts! My co-host Ryan Mahoney of R. Emigh Livestock and Dr. Rosie Busch, our Extension Sheep & Goat veterinarian, explore a variety of livestock production and business topics – everything from genetic selection to analyzing a new business opportunity. And we have some fun along the way – interviewing legendary ranchers and comparing our favorite lamb recipes! If you have a topic idea, email me at dmacon@ucanr.edu!

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(be sure to check out my production-focused IGTV channel!)



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<http://ucanr.edu/livestockinfosurvey>

For a hard copy of the survey:
Please call (530) 889-7385
or email me at dmacon@ucanr.edu.

Thank you!

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