

THE NEW FOOTHILL RANCHER

...Practical Information for Foothill Livestock Producers

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A Quick Note...

It's been a while since we've sent out a Foothill Rancher Newsletter – sorry for the radio silence! While this newsletter isn't in our typical format, I wanted to get this information to you sooner rather than later! Please let me know if you have any questions!

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Using Fire to Fight Rangeland Weeds

Barb goatgrass is a winter annual grass native to the Mediterranean region and western Asia; it was introduced to Sacramento and El Dorado Counties via the importation of cattle from Mexico. And it is a growing problem on annual rangelands here in the Sierra Foothills. In some ways, I think of this invasive grass as "medusahead on steroids" – barb goatgrass spikes and joints (seedheads) disperse by attaching to animals, humans, and equipment. I often see new infestations along roads or walkways. Barb goatgrass forms dense stands with a rapidly establishing root system, making it extremely competitive with other annual grasses and forbs. In some areas, barb goatgrass reduces forage quality and quantity by as much as 75 percent - and because livestock tend to avoid the plant (and graze more desirable forages), it can spread rapidly.



Carol and Andy Kramer, who operate a sheep and cattle ranch in Nevada County, have been fighting barb goatgrass for several years. Most recently, they've been working with the Natural Resource Conservation Service (NRCS) through an Environmental Quality Incentives Program contract focused on goatgrass control. Over the course of the last 9 months, Carol and Andy have been

working with the Placer Resource Conservation District (RCD) and UCCE to experiment with using prescribed fire to reduce goatgrass and re-invigorate native grasses.

Research suggests that burning goatgrass for two consecutive years offers "excellent control." Sounds pretty straightforward, right?! Not so fast! Fire is an effective control method when most of the fine fuel has dried sufficiently to carry the fire, but when the goatgrass seedheads are still attached to the stem - in other words, in late spring or early summer, when everyone is starting to get nervous about fire in the foothills!

A quick aside about using prescribed fire as a range improvement tool. When I started working with ranchers in California in the early 1990s (when I was just out of college, working for the California Cattlemen's Association), prescribed fire had largely gone out of vogue. This was partly a result of increasing worries about liability, and partly, as I recall, a shift in focus and attitude within the California Department of Forestry and Fire Protection (which became officially known as CalFire in the early 2000s). Today, after a decade of increasingly catastrophic wildfires (and the accelerating spread of invasive weeds like barb goatgrass), prescribed fire is making a comeback - thanks to efforts of many of my UCCE colleagues, RCD staffers and contractors like Cordi Craig and Chris Paulus (who led this effort), and especially of landowners like Carol and Andy!

Obviously, with something as complicated as prescribed burning, you don't simply wake up one June morning and say, "Hey, this would be a great day to light the back pasture on fire!" Carol and Andy (along with Cordi and Chris, and UCCE) began planning for this burn last winter. As fire professionals, Cordi and Chris recommended putting a "black line" around the 1.5 acres of goatgrass during the winter months, when CALFIRE burn permits are not required. Carol and Andy invested in water tanks and other equipment and spent much of the winter and early spring pile burning and creating fire lines. Working together, we also burned several adjacent units to remove ground and ladder fuels in the areas surrounding the goatgrass site.

Then we all waited! We needed the underlying fuel to be dry enough to burn, but we also needed the goatgrass to hold onto its seedheads. And we needed the right weather conditions. With the wet, cool spring we had in 2023, these conditions didn't arrive until July - well into fire season. This meant that we also needed a permit from CalFire. I've lived and worked in CalFire's NEU unit (which covers Placer, Nevada, and Yuba Counties) - and worked with and around ranchers - for nearly 30 years. I wasn't aware of CalFire ever allowing a rancher to do a prescribed fire for range improvement (or any other reason) in July. But thanks to the Kramer's persistence and Cordi and Chris's experience and knowledge, we received permission to do the burn on July 13.

Carol and Andy started the fire around 9 am that morning - temperatures were hovering around 80F, and the relative humidity was just over 50%. Amazingly, we had difficulty getting the vegetation to burn - even as temperatures rose, and humidity dropped over the course of the morning. By midday, we'd burned all we could burn, and began mopping up (making sure the fire was completely out).

Walking through the burn, I was amazed by the variability in burn intensity. Some of the goatgrass seedheads were completely consumed; others looked like they had not been exposed to fire at all. Carol collected seedheads from before the burn, as well as singed and apparently unsinged seedheads, to see if there will be any difference in germination (we'll keep you posted). We also started thinking about next year's burn.

One of the biggest challenges in burning for a second consecutive year, I expect, will be whether there is enough fine fuel (other grasses, pine needles, dry leaves, etc.) to carry the fire through the goatgrass. Visiting the site two weeks ago, I was impressed to see native blue wildrye starting to grow in the blackened burn unit (even with very little precipitation since the fire) - we'll be anxious to see what happens once we've had a germinating rain. Even so, we are considering broadcasting a quick-growing, early maturing annual grass (like soft chess) this fall so that we have more receptive fuel next spring.

I think we all learned a great deal about the logistics of using fire to manage goatgrass (thanks to Cordi and Chris) - and about the challenges of using prescribed fire during fire season. One of the side benefits, from my perspective, is the demystification of fire generally. This was not a scary burn, even though it happened in the middle of July! While this was partly due to the conditions on the day of the burn, the work that Carol and Andy did to prepare (with Cordi and Chris's guidance) over the many months leading up to July 13 made it successful and safe. We're all looking forward to next year's fire!

In addition to planning next year's burn at the Kramer's ranch, UCCE and the Placer RCD are putting together a Rancher's Fire Academy for the winter and spring of 2023-24 (see below!). We'll cover prescribed fire, preparing your ranch for wildfire season, caring for livestock during wildfire, and rangeland fire protection associations. If you'd like to get notified once the Academy is open for registration, email me at dmacon@ucanr.edu.

Sierra Foothill Rancher's Fire Academy

Starting this winter, we are partnering with the Placer Resource Conservation District to offer the first-ever Sierra Foothill Rancher's Fire Academy! This series of workshops and field days will focus on using prescribed fire for range improvement, weed management, and fuel load reduction AND helping ranchers work together to prepare for and respond to wildfire in our foothill region!

We will kick off the Academy with a walking tour of the Kramer Ranch (see the article above!) on December 14. Other sessions will include:

- Rx Fire Regulatory and Permitting Issues
- Rx Fire Planning and Site Preparation Field Day
- Fire Tools and Equipment Use Field Day
- Fire Behavior and Fire Safety
- Ranch Hardening and Wildfire Preparation Field Day
- Planning your Rx Fire
- Livestock Health and Management During Wildfire
- What if You Can't Get Out: Evacuation vs. Sheltering in Place
- Rangeland Fire Protection Associations: Could They Work Here?

In addition, there will be several opportunities to participate in prescribed fire operations on local ranches!

A complete schedule is included in this newsletter. The cost is \$25 per session per ranch (up to 4 people per ranch) or \$75 for the entire Academy. Space is limited, so register early!



Sierra Foothill Rancher's Fire Academy

The University of California Cooperative Extension Placer-Nevada Office, The Nevada County Resource Conservation District, the Placer Resource Conservation District, and the UCNR Fire Network are offering the first-of-its-kind Rancher's Fire Academy for ranchers in the Sierra Foothill and Sierra Nevada regions. This series of workshops and field days will focus on:

- (a) Education and hands-on training for ranchers regarding the use of prescribed fire for range improvement, weed management, and fuel load reduction; and (b) Creating new and strengthening existing rancher networks to assist in preparing for and responding to wildfire with the region.

Course Schedule		
Date(s)	Topic	Location
Dec 14 9am – 11am	Benefits of Rx Fire for Range Improvement Carol and Andy Kramer, Dan Macon, and Chris Paulus	Kramer Ranch Grass Valley, CA
Jan 4 6pm – 7:30pm	Rx Fire Regulatory and Permitting Issues Workshop Cordi Craig and Chris Paulus, Placer RCD	UCCE – Auburn, CA
Jan 6 8am – 12pm	Prescribed Fire Planning and Site Preparation Field Day	Kramer Ranch Grass Valley, CA
Jan 20 9am – 12pm	Fire Tools and Equipment Use Field Day	Sierra Foothill REC Browns Valley, CA
Feb 8 6pm – 7:30pm	Fire Behavior and Fire Safety Workshop Cordi Craig and Chris Paulus, Placer RCD	UCCE – Auburn
Feb 24 9am – 12pm	Ranch Hardening and Wildfire Preparation Field Day	Sierra Foothill REC Browns Valley, CA
Mar 7 6pm – 7:30pm	Planning your Rx Fire Cordi Craig and Chris Paulus, Placer RCD	UCCE - Auburn
Mar 28 6pm – 7:30pm	Livestock Health and Management During Wildfire Dr. Rosie Busch and Dr. Gaby Maier, UCD School of Veterinary Medicine	UCCE – Auburn
Apr 18 6pm – 7:30pm	What if you Can't Get Out? Evacuation vs. Sheltering in Place Speakers TBA	UCCE – Auburn
TBA 6pm – 7:30pm	Rangeland Fire Protection Associations: Could They Work Here? Speakers TBA	Webinar
TBA	Final Exam: Prescribed Fire Implementation	Field Site TBA

Cost: \$25 per session (up to 4 people per ranch). \$75 for the entire course!

Register for this workshop/field day series at

<https://surveys.ucanr.edu/survey.cfm?surveynumber=41690>

For more information, contact Dan Macon at dmacon@ucanr.edu or (530) 889-7385.



Placer Prescribed Burn Association Community Resources Survey

The Placer Prescribed Burn Association and Placer RCD have created a survey for Placer County landowners and volunteers who would be willing to share equipment and other resources for prescribed burning this season. They are especially interested in finding collaborators who have water tenders, mobile water units, dozers, or other equipment capable of scraping containment lines, UTVs, etc.

To learn more about the Placer Prescribed Burn Association, contact Cordi Craig at cordi@placerrcd.org. [Complete the survey here!](#)

Placer Land Trust Conservation Easement Workshop

The Placer Land Trust is holding a “Conservation Easement Workshop for Landowners” on Thursday, November 2 (6pm-8pm) at their office at 922 Lincoln Way in Auburn. The workshop is free, but registration is required. For more information, visit placerlandtrust.org/CEworkshop.

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Please take this brief survey to help me better meet your information needs! <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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