



THE NEW FOOTHILL RANCHER

...Practical Information for Foothill Livestock Producers

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Placer—Nevada—Sutter—Yuba Counties



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As COVID-19 Continues, So Does UC Cooperative Extension

I was going to start this newsletter with a cliché – that we live in interesting times. But as I read the news this morning and monitor the progression of COVID-19 in Placer, Nevada, Sutter, and Yuba Counties, I realized that “interesting” is vastly understated. And yet despite the uncertainty that we’re all living with, the work of growing food and fiber goes on. And so does the work that we do at UC Cooperative Extension (UCCE) – we’re simply doing things a bit differently at the moment.

As our counties progress through various stages of re-opening (and, in some cases, perhaps, regress through these stages), much of my UCCE research is continuing. For example, I am nearing the end of a two-year project looking at early weaning of calves as a drought strategy. I continue to work with sheep and goat producers to better understand the behavior of livestock guardian dogs. We continue to examine irrigated pasture management throughout the region.

With in-person meetings suspended indefinitely, I’ve turned to virtual workshops and podcasts as a way to provide information. We’ve started a bi-weekly webinar series called “Working Rangelands Wednesdays” – see the workshop schedule at the end of this newsletter for details. I’ve also started a weekly podcast series with sheep producer Ryan Mahoney entitled “Sheep Stuff Ewe Should Know” (but applicable to all kinds of livestock production) – available on Spotify and Apple Podcasts. And plans are in the works for more virtual workshops in summer and fall. In the meantime, you can also check out my [Ranching in the Sierra Foothills YouTube channel](#).

Finally, I am available for one-on-one consultations – both virtual and at your ranch. If you’d like to schedule a ranch call, contact me by phone at (530) 889-7385 or via email at dmacon@ucanr.edu.

Direct Marketing – Challenges and Opportunities

I have had numerous inquiries since mid-March about opportunities to sell meat directly to consumers (as well as inquiries about where/how to buy meat directly from producers). Direct marketing, for some farmers and ranchers, can be a way to capture more of the consumer dollar. By bypassing the middlemen - wholesalers, distributors, and retailers - direct marketing can allow a producer to receive retail value for his or her product. But direct-market meat is a different story. Direct-market meat

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requires substantial processing - the harvest and cut-and-wrap services provided by processing facilities and butchers require significant skill and capital investment. Over the last 50 years, we've lost local meat processing capacity (in the foothills and elsewhere) - small local butchers simply don't exist in very many places. Many of us assume that increasing this processing capacity would solve the problem. In my experience, the solution isn't quite so simple. As someone who has marketed meat directly to consumers at a modest scale (120+ lambs per year at our peak), I have observed a variety of complicated questions regarding the real issues involved in increasing harvest and processing capacity.

As a small producer, I wanted the ability to call a plant one week and deliver animals the next week. However, most of the small plants in our region are fully booked as much as a year out. A new small plant would be similarly impacted eventually - and from the perspective of the plant, it would be easier to have 10 clients bringing 200 steers (or 500 lambs) per year than to have 200 clients bringing 10 steers (or 25 lambs). In my mind, the only way to address this need for scheduling flexibility for the producer would be to build a plant with excess capacity, which is not economically efficient. This excess capacity would allow me to call the plant on Thursday to schedule a harvest, deliver my lambs the following Sunday, and have packaged meat by the next Friday. If the plant were running at capacity, it could not accommodate me.



Seasonality is related issue, in my mind. Grass-fed meat is a great opportunity for some producers, but typically not a year-round product for many small-scale ranchers. What will a new plant do to keep its crew busy on a year-round basis? I think this is another factor that pushes plants to find fewer, larger-scale customers.

Meat processing has largely been organized on a manufacturing model. The plant buys the raw product (livestock), converts it into meat, and then sells it to distributors, wholesalers, consumers, etc. The model we're talking about is a service model - the plant has to make money on the service it provides rather than adding value to product it owns. That's a very different model, one that is a struggle for existing operations (let alone new ones). For example, when we started with our regional processor, we could get a lamb harvested and fabricated for \$50/head. The company soon realized that the cost of providing this service was much greater than the cost of the labor involved - they had to deal with 100 or more operations like mine that each wanted to harvest 10-15 head once a month. The processing cost is now \$125-145, depending on labeling and other factors. In addition, they require a minimum lot size of

10 head for cut-and-wrap services. This is reflective of true cost of providing a service rather than selling a product.

Despite the interest in new processing capacity locally, there has not been any significant financial commitment from local citizens or producers towards the construction of a facility. This is where the rubber meets the road. And I suspect that this is the crux of the issue - there are both regulatory and economic barriers to entry in the meat processing business. The low return on investment for a service-oriented meat processing facility may make the economic barriers the more difficult to fix. I think if the economics were positive, we'd see private investment in new USDA-inspected processing capacity.

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So how do we fix this? Perhaps we should consider focusing on the regulatory barriers. Along those lines, a couple of things come to mind for me:

1. There are inspection exemptions for direct-marketed poultry based on scale of operation. In some circumstances, a poultry producer could harvest as many as 20,000 birds a year without USDA inspection and sell the meat directly to end users. No similar exemption currently exists for livestock.
2. There was state legislation adopted last year making it legal for cattle producers to sell a live animal and for the buyer to then arrange for harvest and cut-and-wrap. There has been some confusion as to whether this new law applies to other livestock; the California Department of Food and Agriculture (CDFA) is taking the position that it only applies to cattle since cattle producers pay for an ownership inspection (e.g., brand inspection) at harvest. There is interest among other livestock groups (California Wool Growers, California Pork Producers, etc.) in extending this option to other species.
3. CDFA could provide more state inspection (for a fee, perhaps). This could facilitate direct marketing of meat products.

This is probably WAY more information than anyone wants on this topic, but I do think it's important for us to understand the complexity of the issue. I guess I see a couple of important needs:

1. Economic analysis and extension – I think UC Cooperative Extension (and others) could help small-scale producers (and large-scale, for that matter) better understand the economics of selling meat versus selling live animals. My very simplistic assumption when I started was that I would be more profitable selling \$350 worth of meat than I would be selling a live lamb for \$150. Reality was far more complicated. I think there's a need to help folks better understand this question. Producing a finished product (as opposed to a live animal) at scale is a complicated production and economic model for most livestock producers. It requires a very different set of skills. And selling meat is far more time consuming than selling a live animal – regardless of the scale of operation. ***For more details, see the article below!***
2. Research-to-policy – I also think there is a role for extension and others to help regulators understand the opportunities and barriers involved in direct-market meat production. This runs the gamut from ensuring food safety to understanding economics to quantifying consumer demand.

Many of my extension colleagues - in California and elsewhere - have spent considerable time and effort examining this problem. Their work has been exceptionally valuable - we have a much better understanding of the complexity of these challenges today than I did when I started in the direct-market meat business more than a dozen years ago. Perhaps these questions are part of the maturity process - the early pioneers must expose the weaknesses in the system. Some of these weaknesses are economic; others are regulatory. I'm hopeful that we're making progress towards discerning - and addressing - the most critical barriers.

Does Direct Marketing Add Value to Livestock?

When my family started raising sheep commercially, we assumed that selling meat directly to consumers would be more profitable (especially at our small scale) than selling live animals. As we went through the logistics of getting animals to our processor, deciding what cuts we thought we could sell, determining our product pricing structure, picking up meat, getting it stored, and then getting it sold, we realized that meat marketing was far more complicated than hauling a load of lambs to the auction. We also got a crash course in the difference between gross profit and net profit.

Value-added marketing is a buzzword in local food system conversations – after all, who wouldn't want to add value to the crops or livestock they produce. But how do we know if we're actually adding value if we're

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selling meat rather than live animals? From an economic analysis perspective, we have to look at the meat business separately from the livestock production business. In other words, the meat business has to “buy” the live animal from the livestock business. How do we go about this kind of analysis?

In our own business, I started using the market price for finished lambs (as published in weekly market reports from the closest livestock auctions) as the “purchase” price of lambs for the meat business. If a 100-pound lamb was worth \$1.80 per pound at Escalon, my meat business would need to pay my livestock business \$180 to buy that lamb.

In economic analysis terms, the purchase of the lamb was a variable (or direct) expense for the meat business. Other direct expenses included harvest and cut-and-wrap fees (which are typically charged by the head or by the pound). Overhead costs – those expenses which are incurred regardless of the number of animals being processed, included transportation to and from the processor, storage, marketing expenses, and labor.

On the revenue side, we need to know how much retail product we’ll get from that 100-pound lamb. This is different than hot carcass (or hanging weight) – this is how much product actually goes into a package. We found that we typically got a 30-33 percent retail yield – in other words, the 100-pound lamb gave us 30-33 pounds of meat we could sell to our customers. We also needed to know the relative yield by cut – after all, folks will pay more for a rack of lamb than they will for stew meat. From this, we could calculate an average retail price per pound – for us, this came out to about \$11 per pound of retail product.

Let’s look at that \$180 lamb:

Gross Revenue	Amount
Meat Sales (33 lbs at \$11/lb)	\$363
<i>Total Gross Revenue</i>	\$363
Direct Expenses	
Lamb purchase	\$180
Slaughter/Cut-and-Wrap (per head)	\$145
<i>Total Direct Expenses</i>	\$325
<i>Gross Margin</i>	\$38
Overhead Expenses	
Transportation (live animal – 130 miles @ \$0.57/mile)	\$74
Transportation (product – 130 miles @ \$0.57/mile)	\$74
Storage (monthly locker fee)	\$125
Marketing (farmers market fee)	\$50
Labor (10 hours @ \$15/hour)	\$150
<i>Total Overhead Expenses</i>	\$473
Net Profit (Loss)	(\$435)

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Yikes – “adding” value to a single lamb would create a loss of \$435! Maybe we should look at scaling up (so we can spread our overhead expenses over more units). I can take 20 finished lambs in my trailer – let’s look at the numbers for 20!

Gross Revenue	Amount
Meat Sales (33 lbs at \$11/lb) – 20 lambs	\$7,260
<i>Total Gross Revenue</i>	\$7,260
Direct Expenses	
Lamb purchase	\$3,600
Slaughter/Cut-and-Wrap (per head)	\$2,900
<i>Total Direct Expenses</i>	\$6,500
<i>Gross Margin</i>	\$760
Overhead Expenses	
Transportation (live animal – 130 miles @ \$0.57/mile)	\$74
Transportation (product – 130 miles @ \$0.57/mile)	\$74
Storage (monthly locker fee)	\$125
Marketing (farmers market fee – 5 weeks to sell 20 head)	\$200
Labor (10 hours @ \$15/hour)	\$150
<i>Total Overhead Expenses</i>	\$623
Net Profit (Loss)	\$137
	(\$6.85/head)

This time, we made a profit! All of that extra work added a whopping \$6.85 per head to the value of our lambs! And this doesn’t account for the time value of money – when I sell at the auction, I have a check within a week. When I sell meat, the cash flows in as I’m able to sell product – it may take a month or more.

Obviously, these numbers are sensitive to the current market price, the distance to your processor, and processing fees. In a depressed live market (like we’re currently facing), marketing meat may add more value. We also need to look at the net price we’d receive selling a live animal - we should deduct the cost of hauling the animal to the sale, the commission and yardage charges, etc. **But the takeaway here is that it’s important to do the analysis.**

If you’d like to walk through a more thorough analysis of your business, contact me at (530) 889-7385 or dmacon@ucanr.edu.

USDA Announces Online Portal for CFAP Applications

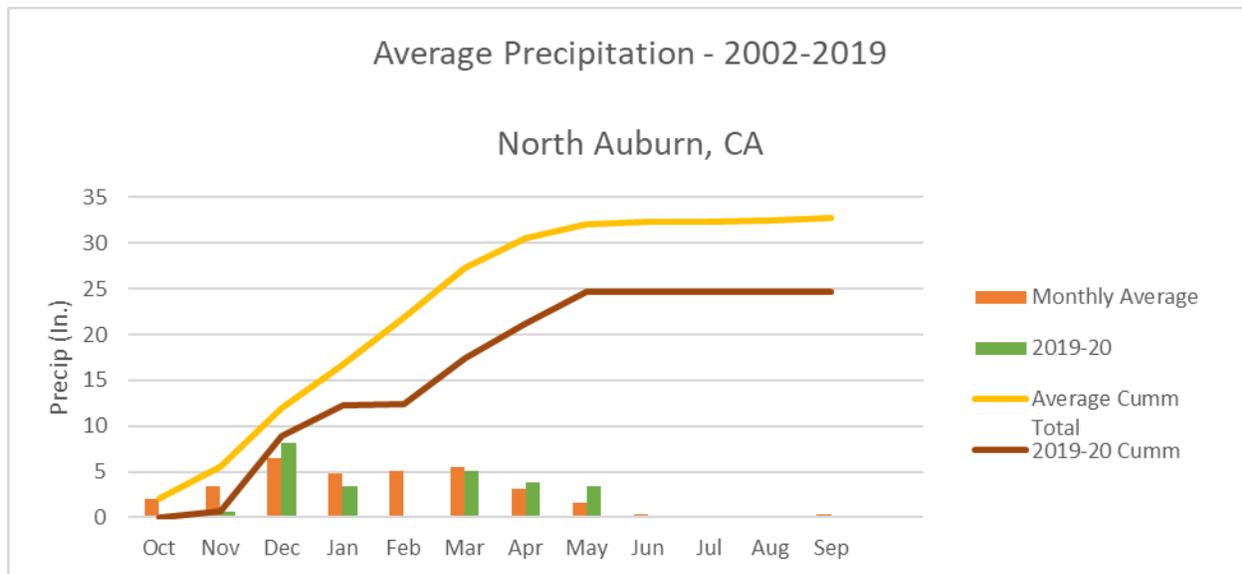
The USDA Farm Service Agency (FSA) has announced that it will begin accepting online applications for the Coronavirus Food Assistance Program (CFAP) for sole-proprietorships and single-member business entities. Up to this point, applicants have been required to submit applications through their local USDA Service Centers.

The online application is available via the [CFAP Application Portal](#). According to FSA, the online application portal is only available to “producers with secure USDA login credentials—known as eAuthentication.” Producers who do not have an eAuthentication account can begin the enrollment process for eAuthentication [here](#).

Applications may still be submitted via county FSA offices. CFAP applications are due by August 28.

USDA Declares Drought Disaster

As I said at the beginning of this newsletter, 2020 has proven to be a very “interesting” year – and this applies to weather conditions as well! While February 2020 was the driest on record, late spring rainfall was close to normal – and total forage production measured at the UC Sierra Foothill Research and Extension Center was slightly above the long-term average. Now that we’re into our normal dry season, our season-long precipitation total looks to be about 75% of average (at least in the 20 years I’ve kept records in Auburn).



Even with close-to-average forage production, conditions throughout the foothills and Sacramento Valley have been spotty. The spring flush seemed rushed (at least here in Auburn), which meant our window for grazing nutritious and palatable forage on our annual rangelands was shorter than normal. And stock water was a problem for many producers.

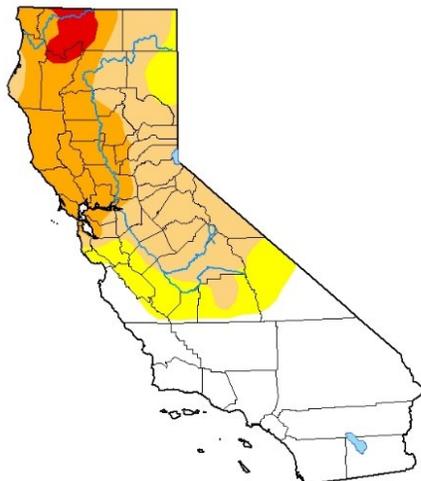
In light of these unusual conditions, the U.S. Drought Monitor kept our region in D2 (Severe Drought) for more than 8 consecutive weeks this spring (conditions have improved slightly since then, as the map below indicates). Why is this important?

Counties that are in D2 conditions for at least 8 consecutive weeks are typically declared as drought disasters by USDA. This week, USDA declared drought disasters for Alameda, Contra Costa, Marin, Napa, **Nevada, Placer**, Sacramento, San Francisco, San Joaquin, San Mateo, Santa Clara, Solano, Sonoma, **Sutter**, Yolo, and Yuba Counties, along with the counties contiguous to these.

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**U.S. Drought Monitor
California**



June 30, 2020
(Released Thursday, Jul. 2, 2020)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	41.79	58.21	46.74	20.84	2.45	0.00
Last Week 06-23-2020	41.79	58.21	46.74	20.84	2.45	0.00
3 Months Ago 03-31-2020	24.86	75.14	43.31	1.30	0.00	0.00
Start of Calendar Year 01-01-2019	96.43	3.57	0.00	0.00	0.00	0.00
Start of Water Year 10-01-2019	95.29	4.71	2.06	0.00	0.00	0.00
One Year Ago 07-02-2019	95.68	4.32	0.00	0.00	0.00	0.00

Intensity:
 None (White) D2 Severe Drought (Orange)
 D0 Abnormally Dry (Yellow) D3 Extreme Drought (Red)
 D1 Moderate Drought (Light Orange) D4 Exceptional Drought (Dark Red)

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>

Author:
Adam Hartman
NOAA/NWS/NCEP/CPC



This declaration means that producers may be eligible for emergency loans. According to the USDA news release:

“[Producers] who suffered losses due to recent drought may be eligible for emergency loans.

“The deadline to apply for these emergency loans is Feb. 16, 2021.

FSA will review the loans based on the extent of losses, security available and repayment ability.

“FSA has a variety of additional programs to help farmers recover from the impacts of this disaster. FSA programs that do not require a disaster declaration include: [Emergency Assistance for Livestock, Honeybees and Farm-Raised Fish Program](#); [Emergency Conservation Program](#); [Livestock Forage Disaster Program](#); [Livestock Indemnity Program](#); [Operating and Farm Ownership Loans](#); and the [Tree Assistance Program](#).

“Farmers may contact their local USDA service center for further information on eligibility requirements and application procedures for these and other programs. Additional information is also available online at farmers.gov/recover.”

Sierra Harvest Offering 2020 Ag Skills Courses

Sierra Harvest, a Nevada County-based nonprofit, is offering a new round of Ag Skills Courses. Ag Skills provides a season of hands-on, in-depth learning for beginning, commercial farmers. From building soil to saving seeds, each class focuses on tangible skills necessary for farming success in the foothills. Peer-to-peer classes are taught on-farm, by farmers and include a farm tour. The course is a great way to network with the local farming community and hone your farming skillset.

Classes meet Tuesdays, 4:00 pm - 6:30 pm, July 7th - Sept 29th
 \$22 per class. 7 classes for \$20/class. Entire course (13 classes) \$18/class.

2020 Ag Skills includes: How to Start a Farm, Crop Irrigation, Bed Prep & Weed Management, Intensive Farming, Holistic Ag in the Foothills, All About Tractors, All About Flowers, Adding Bees to the Farm, Soil Occultation, Understanding Soil, Seed Production & Saving, Small Engine Maintenance, & Successful CSA's
[Learn more & register here!](#)

Public Safety Power Shutoff Needs Assessment

I'm collaborating with a number of advisors from other counties to get a better handle on the needs of our community regarding public safety power shutoffs. We're trying to ascertain the needs for educational and information resources – and my interest is specifically about the needs of the ranching community.

Please watch your inbox for a link to our survey!

Webinar and Podcast Schedule

Working Rangelands Wednesdays – [register here!](#)

Date	Topic	Presenters
July 15	Coping with Drought on Public Rangelands	<ul style="list-style-type: none"> Jack Hanson, rancher Emilio Huarte, rancher Tim Koopmann, rancher (invited)
July 29	Targeted Grazing and Drought	<ul style="list-style-type: none"> Andree Soares, Star Creek Land Stewards Brad Fowler, The Goat Works Nathan Medlar, NM Ranch
Aug 12	Early Weaning and Cull Strategies: A Deeper Dive into Drought Management	<ul style="list-style-type: none"> Dan Macon, UCCE Placer-Nevada-Sutter-Yuba Roger Ingram, UCCE Placer-Nevada (emeritus)
Aug 26	TBA	<ul style="list-style-type: none">

Sheep Stuff Ewe Should Know Podcast (with Ryan Mahoney) – available on Spotify and Apple Podcasts

Episode	Topic(s)	Description
Pilot	A Good Place to Start	Discussion of the diversity of sheep and some of the steps new producers should consider when selecting a breed.
#1	Benchmarking Basics	How do you measure efficiency? Some thoughts about using benchmarks in your ranching business
#2	Wool 101	The basics of wool production and the wool system in the U.S.
#3	Coping with COVID	A deeper dive into the reasons behind the collapse of the lamb market during the 2020 COVID-19 crisis.
#4	Risky Bizness	Managing risk on your farm or ranch.
#5	Pondering Perfect Pastures	Everything you wanted to know about pasture management – and then some! Grazing management, nutrient supplementation, noxious weeds, you name it!
#6	The Art & Science of Finishing Lambs	After a quick re-cap of the CFAP program, we talk about the role of a feedlot in sheep production.

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Additional episodes:

Sheep Stuff Ewe Should Know Podcast (with Ryan Mahoney) – available on Spotify and Apple Podcasts

Episode	Topic(s)	Description
#7	Keeping Healthy Sheep	Basic information about vaccines, antibiotics, and the importance of a relationship with a veterinarian.
#8	Tech Tools to Manage Data	What are some of the best tools for collecting, storing, and using information about individual animals to inform management decisions. Most importantly, how do tech investments return value to your ranch!
#9	Livestock Guardian Dogs	LGD basics: how to choose ‘em, how to train ‘em, how to evaluate ‘em!
#10	Legends: Richard “Dick” Emigh	Ryan and Dan interview legendary California sheep rancher, Dick Emigh.
#11	Sheep on the Run	Traveling the world looking for perfect sheep country – and a great discussion about transporting and weighing livestock!
#12	Family Ranching	Ryan joins guest host Joe Fischer to talk about raising a family in a ranching business.

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 UC COOPERATIVE EXTENSION
 LIVESTOCK and NATURAL RESOURCES Program?
 Please take this short 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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