Food Systems Resiliency Webinar Series

UC ANR Strategic Initiatives joint effort to reimagine our food system

Proce

Production

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

Accessibility

Processing

Food Systems Resiliency Series objectives:

- Tour different parts of the Food System to:
- ☐ Improve knowledge and understanding
- □ Identify and share available existing electronic information (resource kits)
- ☐ Identify information gaps
- Brainstorm
- ☐ Recruit additional participants



Larry Forero UCCE Livestock & Natural Resources

UCCE Livestock & Natural Resources Advisor Shasta and Trinity Counties

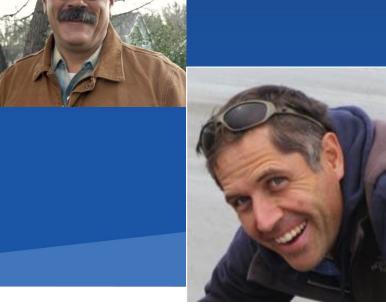
Dan Macon

UCCE Livestock & Natural Resources Advisor Placer-Nevada-Sutter-Yuba

Vince Trotter UCCE Sustainable Ag Coordinator and

Agricultural Ombudsman Marin County



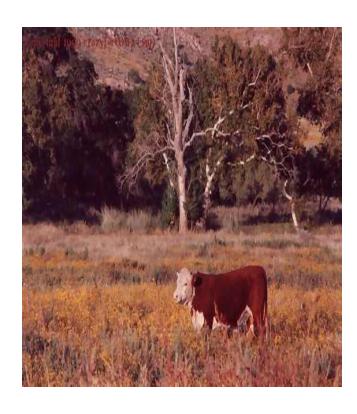


Thoughts on niche beef marketing...

Larry Forero
University of California
Cooperative Extension



Commodity to a Product





Niche Meat Marketing

- Small market growth potential
- Branded label (Different)
- Localized & Regional marketing
- Defining a trend or need (COVID-19?)

Know the target consumer



- Identify market based on something other than "if I produce it they will buy it"
- Research costs, returns and customer preferences
- Understand potential problems and have a plan to address them

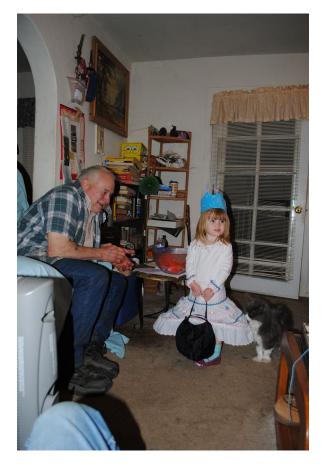








Questions from customers...



- "I bought a 1250 lb beef and this is all the meat I got?"
- "How much do I owe you? That seems like a lot."
- Response to a potential customer who was "shopping price" on the phone: "Nope, we're the most expensive, you don't want to come here."

Hind Quarter (300 lb, YG 3)

	Lbs.	%
Round Steak	27.0	18.8
Rump Roast (boneless)	9,9	6.9
■ Steaks Porterhouse, T-bone and Club	15.3	10.6
Sirloin Steak	24.9	17.3
Flank Steak	1.5	1.0
Lean trim	21.0	14.6
Kidneys	.9	.6
Waste (fat, bone, & shrink	age) <u>43.5</u>	<u>30.2</u>
■ Total	144	700

Front Quarter

	rps.	%
Rib Roast	18.3	11.7
Blade Chuck Roast	26.7	17.1
 Arm Chuck Roast (boneless) 	17.4	11.2
Brisket (boneless)	6.3	₹°0
Lean trim	49.2	31.6
Waste (fat, bone, & shrinkage)	<u> 38.1</u>	24,4
■ Total	156	100

UC COOPERATIVE EXTENSION-AGRICULTURAL ISSUES CENTER Table 1. PURCHASED YEARLINGS FINISHED ON GRASS

Carcass Beef

20 Head Sacramento Valley - 2017

Production/Sales:		Animals	Weight	Dollar Value	Gross Value	\$/Cow (1)
Calves Purchased		20	800	1.35	21,600	1,080.00
Carcasses Sold		20	627	3.75	47,025	2,351.25
Gross Sales Revenue:				,	25,425	1,271.25
Operating Inputs:	Uni	its	Animals	\$/Unit	Total Costs	\$/Cow
Pasture (2)	AUM	6.00	20	30.00	3,600	180.00
Salt/Mineral Supplements	Tons	0.50	20	240.00	120	6.00
Hay	Tons	1.00	20	120.00	120	6.00
Veterinary/Medical	Each		20	3.95	79	3.95
Death Loss (1% of purchased price)				216.00	216	10.80
Brand Inspection	Each		20	1.25	25	1.25
Checkoff (Marketing Order Promotion)	Each		20	1.00	20	1.00
Harvest Costs	Carcass		20	100.00	2,000	100.00
Cut and Wrap	Pounds	627	20	1.00	12,540	627.00
Marketing Costs (Advertisement)	Each		20	35.00	700	35.00
1-Ton Pickup Truck	Miles	1,000		0.54	535	26.75
Stock Trailer	Miles	400		0.20	80	4.00
ATV-4WD	Miles	1,000		0.35	350	17.50
Horse (shoes, vet, & feed)	Each		1	200.00	200	10.00
Total Operating Input Costs:					20,585	1,029.25
Net Revenue Above Operating Input Costs:					4,840	242.00
Cash Overhead Costs:						
Interest on Operating Capital (3)					506	25.31
Insurance (Liability)					907	45.35
Overhead (Office Expenses)					250	12.50
Total Cash Overhead Costs:					1,663	83.16
Total Cash Costs:					22,248	1112.41
Net Revenue Above Total Cash Costs:					3,177	158.84
Annual Capital Recovery					2,177	108.85
Total Costs:					24,425	1,221.26
Net Revenue Above Total Costs:					1,000	49.99

UC COOPERATIVE EXTENSION-AGRICULTURAL ISSUES CENTER Table 3. RANGING ANALYSIS FINISHED ON GRASS Beef Cattle

20-Head Sacramento Valley-2017

		Carcass S	ales				
Weight per Animal (lb)	627	627	627	627	627	627	627
Animals Sold	20	20	20	20	20	20	20
\$/lb	2.50	2.75	3.25	3.75	4.25	4.75	5.25
Gross Sales Revenue:	31,350	34,485	40,755	47,025	53,295	59,565	65,835
Animal Purchase Cost (20 calves)	21,600	21,600	21,600	21,600	21,600	21,600	21,600
Revenue less Purchase Cost:	9,750	12,885	19,155	25,425	31,695	37,965	44,235
Total Operating Input Costs	20,585	20,585	20,585	20,585	20,585	20,585	20,585
Revenue above Operating Input Costs:	-10,835	-7,700	-1,430	4,840	11,110	17,380	23,650
Total Cash Costs	22,248	22,248	22,248	22,248	22,248	22,248	22,248
Net Revenue above Total Cash Costs:	-12,498	-9,363	-3,093	3,177	9,447	15,717	21,987
Total Operating Costs	24,425	24,425	24,425	24,425	24,425	24,425	24,425
Net Revenue above Total Costs:	-14,675	-11,540	-5,270	1,000	7,270	13,540	19,810

	Far	rmers' Mark	et Sales				
Weight per Animal (lb)	350	350	350	350	350	350	350
Animals Sold	20	20	20	20	20	20	20
\$/Ib	5.50	6.00	6.50	7.00	7.50	8.00	8.50
Gross Sales Revenue:	38,500	42,000	45,500	49,000	52,500	56,000	59,500
Animal Purchase Cost (20 calves)	21,600	21,600	21,600	21,600	21,600	21,600	21,600
Revenue less Purchase Cost:	16,900	20,400	23,900	27,400	30,900	34,400	37,900
Total Operating Input Costs	15,045	15,045	15,045	15,045	15,045	15,045	15,045
Revenue above Operating Input Costs:	1,855	5,355	8,855	12,355	15,855	19,355	22,855
Total Cash Costs	21,642	21,642	21,642	21,642	21,642	21,642	21,642
Net Revenue above Total Cash Costs:	-4,742	-1,242	2,258	5,758	9,258	12,758	16,258
Total Costs	23,819	23,819	23,819	23,819	23,819	23,819	23,819
Net Revenue above Total Costs:	-6,919	-3,419	81	3.581	7,081	10,581	14,081

Current Example

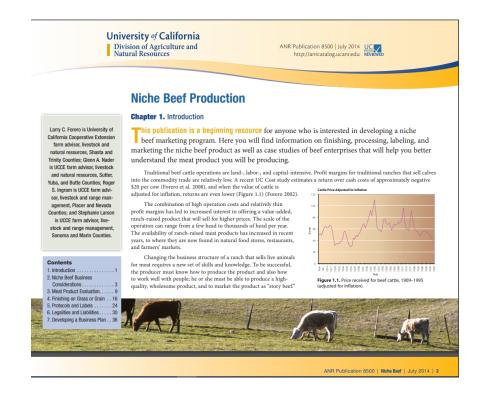


- ½ Choice side of beef \$3.98/lb carcass weight into the freezer
- 700 lb carcass weight
 350 lb*\$3.98=\$1393/side
- \$2786/head gross return

Locally, that is the competitive product.

Couple of simple and free resources...

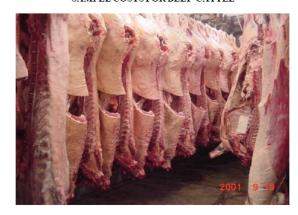
https://anrcatalog.ucanr.edu/pdf/8500.pdf



https://coststudyfiles.ucdavis.edu

UNIVERSITY OF CALIFORNIA AGRICULTURE AND NATURAL RESOURCES COOPERATIVE EXTENSION AGRICULTURAL ISSUES CENTER UC DAVIS DEPARTMENT OF AGRICULTURAL AND RESOURCE ECONOMICS

SAMPLE COSTS FOR BEEF CATTLE



FINISHED ON GRASS

20 Head Northern Sacramento Valley - 2017

Roger Ingram Jeffery Stackhouse Donald Stewart

Daniel A. Sumner

UC Cooperative Extension Farm Advisor, Shasta and Trinity Counties UC Cooperative Extension Farm Advisor, Placer and Nevada Counties UC Cooperative Extension Farm Advisor, Humboldt and Del Norte Counties Staff Research Associate, UC Agricultural Issues Center and Department of Agricultural and Resource Economics, UC Davis

Director, UC Agricultural Issues Center, Costs and Returns Program, Professor,

Department of Agricultural and Resource Economics, UC Davis

Things to think about...

- Location
 - Processing plant (also scheduling)
 - Market selling into
- Costs
- Transportation
- Inventory management and storage
- Liability insurance



Solutions for California

PRACTICAL | CONNECTED | TRUSTED

Dan Macon

Livestock and Natural Resources Advisor UCCE – Placer-Nevada-Sutter-Yuba



Does direct marketing meat add value to livestock?

The Short Answer: It Depends!

The Long Answer: It's Complicated...



Systems Thinking...



- If we think about niche marketing of meat in terms of our food system, we need to start with our goals! Do we want...
 - Economic efficiency?
 - Equity for all participants??
 - Value? For whom? Consumers? Producers?
 - Choice?
 - Resilience? What does resilience mean? Production resilience? Processing resilience?

The Long Answer...

- As producers (ranchers), we need to look at our meat businesses separately from our livestock businesses! Who are our customers? Who are our consumers? Our answers change depending on how we market.
- First, a few definitions:
 - Gross Revenue: the total income from product sales
 - Direct (or Variable) Costs: those expenses that vary directly with the number of units we're producing
 - Overhead Costs: those expenses that we incur regardless of the number of units produced.
- We also need to know a few key things about our product (meat):
 - Total retail product (NOT hot carcass weight or dressing percentage) this is the weight of meat in the package.
 - Retail yield of primal cuts (what % of that retail product will be racks, or ribeyes, or ground meat, etc.?).
 - Average retail price per pound.



Economic Analysis

- Gross Revenue
 Retail product per head
 X Average price/lb
 - = Total Revenue per Head

X Number of Head per Batch



- Direct Costs
 - Processing costs
 - Slaughter
 - Cut and Wrap
 - Labels
 - Live Animal Value!
 - What is the net value of the live animal if you sell it live?
 - Your meat business must buy this live animal from your livestock business (at least on paper)!



Economic Analysis (Continued)

- Overhead Costs
 - Labor (time to and from processor, time spent marketing, managing inventory, etc.)
 - Transportation (costs the same to pull a full trailer as it costs to haul one animal)
 - Storage
 - Marketing and Sales

Our basic equation

Gross Revenue

Direct Expenses

Gross Margin

Overhead

Profit (or Loss)



Economies of Scale = Economic Efficiency?

- In our business, processing and marketing 1 lamb at a time resulted in a \$400 LOSS compared with selling a live animal at auction!
- If we could process and market 20 lambs at a time, this would <u>ADD</u> approximately <u>\$28/head</u> in value over selling a live animal.

 Moral of the Story: ALWAYS take a full trailer to the processor!



A Few Final Questions...

- Are you set up to raise finished animals?
- How will you market your meat products? By the whole or half? By the piece?
- How many animals do you need to process at a time to spread your overhead over enough units to be profitable? How long will it take you to market this much meat?
- Can you afford the drain on your cash flow (for processing, storage, etc.) necessary to "add" value?
- Can your livestock business afford to wait to get paid until your meat business has marketed the entire animal?
- Are there other ways to get at this? Alliances? Cooperatives? Selling to a larger direct marketer?

Additional Resources

- Ranching in the Sierra Foothills Blog
 - Does Direct Marketing Add Value to Meat? https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=43123
 - Marketing Meat: Why It's Not Quite that Simple https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=41282
 - Challenges for Direct-Market Meat Production https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=30656
 - Selling Meat vs. Selling Livestock <u>https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=27356</u>
- Foothill Farming Niche Meat Marketing Resources
 https://ucanr.edu/sites/placernevadasmallfarms/Livestock/Niche_Meat_and_Processing/



Vince Trotter

UC Cooperative Extension Marin



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Agriculture and Natural Resources

2 Alternative Models for Meat Producers

- 1. Ranch-harvested livestock
- 2. Ranch-harvested poultry
- 3. Retail-exempt cut-and-wrap



Do you work with ranchers who offer "hog shares", "freezer beef" or other similar programs to customers?

Yes, no, does not apply



FREEZER BEEF

BROCK FARMS ANGUS CATTLE



WE ARE NOW TAKING ORDERS FOR 2021.

Thank you to all our new customers and the many phone calls we have received.

We are now booking for 2021 - get your spot reserved now!!

Please contact Kris at 317-850-3434 or brockangus4@gmail.com to book your 1/4, 1/2, or whole cow



UNIVERSITY OF CALIFORNIA Agriculture and Natural Resources

Whole animals for custom processing

Opportunities	Obstacles
Direct line to consumers	Narrow band of consumers
Lower processing costs (transport, processing)	"High touch" transaction
Higher sense of independence/control	Limits on volume
No inventory maintenance	Limits on species
Improved animal welfare	



Have you had inquiries from ranchers that are interested in on-farm poultry processing?

Yes, no, does not apply





UNIVERSITY OF CALIFORNIA Agriculture and Natural Resources

On-farm poultry processing

Opportunities	Obstacles
Direct line to consumers	Requires right-sized sweet spot
Lower processing costs (transport, processing)	Skills take time
Improved animal welfare	Heightened food safety liability
	Limits on staffing
	Limits on volume
	Limits on sales channels

Retail-exempt cut-and-wrap

USDA slaughter





Commissary Approved Consumers or wholesale buyers



Opportunities	Obstacles
Alternative to cut-and-wrap bottleneck	Requires right-sized sweet spot
Low permitting costs	Requires skilled labor
Higher sense of independence/control	Up-front costs for equipment, space
Flexible market channels	Not well understood by local officials
	Limits on sales to wholesale buyers



http://growninmarin.org

For Farmers & Ranchers

COVID-19 Resources

Livestock and Dairy

Crops

Poultry and Eggs

Nurseries

Farm Enterprise Management

Factsheets, Workshops, and Other Resources

Sustainable Practices

Getting Started in Farming & Ranching in Marin

Water

Let Us Knov

Ask us a question, share a resource, or sign up to receive news about events, workshops, and other

On-Farm Poultry Processing

The lack of inspected poultry processing plants in California has created interest among small scale producers for on-farm processing of broilers for sale. This page addresses the regulations, food safety and logistical considerations of building an on-farm poultry processing enterprise.



Business Model

- Economics of On-Farm vs. Inspected Processing: One Small California Farm UCCE Marin
- · Q&A with an On-Farm Poultry Processor UCCE Marin
- Economic Feasibility Study Mobile Processing Units for Small Scale Pasture Poultry
 Farmers
- · SARE: Profitable Poultry Raising Birds on Pasture
- NCAT-ATTRA: Poultry Entrepreneurship Resources
- NCAT-ATTRA: Growing Your Range Poultry Business: An Entrpreneur's Toolbox

Regulations

- UCCE Marin Workshop: Poultry Processing for Commercial Sale 8/22/17
- · Local, State & Federal Regulations for On-Farm Poultry Processing UCCE Marin
- . CDFA Meat Poultry & Egg Safety Branch: Exempt Poultry Questions from CDFA to USDA
- · CDFA Meat Poultry & Egg Safety Branch: Flowchart for Exempt Poultry sales through CSA
- •

For Farmers & Ranchers

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Selling Whole Animals for Custom Processing

"Freezer beef". "Cow share".

Selling customers a whole or partial steer for their freezer is nothing new to small California ranchers. Until 2019, however, that practice has been illegal under state law. The passage of AB 2114 in 2018 lifted the ban in California and placed a set of standards on the transaction, opening the door for California ranchers to confidently add this method of sales to their business model.

Related Resources:

- Printable factsheet on Whole Animal Sales for Custom Processina
- · Selling animals by live weight
- Typical carcass yields from cattle, sheep, hogs & goats
- Frequently Asked Questions

Why sell whole animals for custom processing?

 In a whole animal sale with custom exempt processing, the rancher can talk directly to the consumer, answering questions related to breed, feed, animal welfare and stewardship of the land.



http://growninmarin.org

Sustainable Agriculture
Research & Education Grants and Education to Advance Innovations in Sustainable Agriculture

Home » Learning Center » Bulletins » Profitable

Looking for something different? Search the

Online Version (Free): Download File Or

Profitable Poultry: Raising Birds on Pasture

using pens, movable fencing and pastures.

partners with two other producers in proces

has seen dramatic improvements to his des

Profitable Poultry

Print Version: Free Order

Raising Birds on Pasture

What We Do

Where We Work

Grants

Poultry Processing

slaughter only

\$3,247

\$1,218

\$5,250

NFT: \$585

Whole

Bird Costs

POULTRY ENTREPRENEURSHIP

Most producers raise poultry for income, although some raise birds largely for pleasure or other indirect benefits, such as improving pasture fertility, increasing farm diversity, involving youth, etc.

Feasibility and business planning are important in any enterprise, but especially in specialty poultry businesses because of the risks that producers take. Feasibility planning includes personal and family considerations,

marketing, production (including technical factors as well as regulatory and

· SARE: Profitable Poultry - Raising Birds on Pasture

NCAT-ATTRA: Poultry Entrepreneurship Resources

ON-FARM

slaughter + process

NFT: \$2.893

200 birds @ 1 week Farmers Market sales ONLY

RELEVANT PROCESSIN

Below are the conditions and standards of

Marin

Water

On March 14, 2017 the Marin County Boar Whole birds **Parts** Hybrid (33% whole, 66% parts) allow for on-farm slaughter & processing c code gives producers access to a kind of ag and Agriculture (CDFA) and United States to their small scale) from continuous bird-Bird Costs \$3,247 Bird Costs \$3,247 Bird Costs \$3,247 (FSIS) inspectors during the slaughter of perocessing pertaining to sanitation and record keepin_{Costs} \$418 \$560 Costs \$507 with practices and procedures that produc also be kept to demonstrate that farms are Sales Costs \$200 LAND-USE \$5,250 \$6.287 Revenue \$6,900

NFT: \$1 385

. This activity is labeled as "Poultry Processing" and defined as follows: "This land use consists of facilities permanently installed on a site engaged in slaughtering fowl for meat to be sold." · Poultry Processing is a Principally Permitted use in lands zoned A3-A60 and

forbidden in other ag zones (A2, ARP and all lands within the Coastal Zone3) · Poultry Processing includes domestic fowl (chickens, ducks, turkeys, geese as well as other domesticated birds such as guineas, squab, and ratites) AND domesticated

NOTE: These amenda the Development Cod no impact on slaughts animals for personal

INSPECTED

200 birds @ 1 week **Farmers Market sales ONLY**

Whole **Parts** Hybrid Bird Costs Bird Costs Bird Costs Costs \$1,256 \$1,398 Costs \$5,250

slaughter + process

(33% whole, 66% parts \$3,247 \$1,337

\$6 287 1000-1350 62-64% of live weight 58-67% of carcass weight 60-75% of carcass weight Hog 215-280 72-75% of live weight Lamb 115-145 48-52% of live weight 45-60% of carcass weight Goat 40-55% of live weight 65-78% of carcass weight

The weight of the animal at the time of slaughter

Carcass (dressed) Weight

Alternative Livestock Production & Marketing:

A SURVEY OF MARIN & SONOMA LIVESTOCK PRODUCERS

Figure 1. Minimu Scenario #1 Meat for P

Animal stays on ranch

Scenario #2 Live Animal Sales (animal sold then slaughtered and prod

Live animal sold - owner5, must leave ranch for slaughters

"Custom" slaughter for owner at (or USDA-licensed slaughter facili

Selling Whole A Processii

curing, rendering

les on site

nops.

must be registe

Selling customers model.

"Freezer beef". "(

their freezer is no California ranche practice has been The passage of A ban in California standards on the door for California add this method

Fundamentals of

BEEF

MANAGEMENT

A500

Specific regulations that apply to whole

The harvest of one's own animals for their private

consumption is not subject to the same oversight as

commercial slaughter. However, if the frequency or

number of harvests conducted on a given ranch rises

animal sale with custom processing:

Marin County -

RICULTURAL PRODUCTION > ANIMAL SCIENCE > FUNDAMENTALS OF BEEF MANAGEMENT Indamentals of Beef Management

> Copyright Date: 2006 Length: 140 pp. Language: English

Publication Number: 3495

In order to demonstrate that this transaction is in keeping w

state and federal rules, everyone involved needs to keep cert records. This also preserves transparency and traceability fo^Cifica the meat products

RANCHER RECORDS:

- · Name, address, phone number, email of customer buying whole or partial animal
- Tag number/ID of animal being purchased
- · Price paid
- · Date of transaction transferring ownership · Date of harvest
- · Copy of Weighmaster Certificate (if rancher is selling anin by live weight)

MOBILE SLAUGHTER OPERATOR RECORDS:

· Description of animal harvested including brand and mar

- · Name, address and telephone number of the person for wl
- services are being provided (the owner of the animal) · Date of harvest and address of the property where the har took place as well as the total number of animals harvested o Limit of 5 head per premises per month (not including animals for ranchers' home use)
- The name and address of establishment to which carcasses
- Frequently Asked Ouestions

TYPICAL MEAT YIELDS FROM LIVESTOCK

e table below shows estimated yields from typical livestock. Actual amounts of packaged meat derived from estock slaughter will vary from animal to animal. Factors that influence the final amount of meat include:

- Livestock management practices including:

Live Weight (lbs)

- Feed type(s)
- Finishing practices

Marin

Water

- Time on pasture Age at slaughter
- · Live weight at slaughter
- Cut-and-wrap practices, including:
- Rone-in cuts vs. honeless
- Relative fattiness of cuts
- Lean percentage of grind

Packaged Meat

Selling cattle by live weight

Weighmaster certificates



If you plan to sell live cattle by weight to customers either as whole animals or as a percentage

Did the information provided improve your knowledge and understanding of farm sales of meat?

Yes definitely, somewhat, not much, no



Were the electronic resources new to you?

Yes definitely, somewhat, not much, no



Will you use information from today's webinar with your clientele?

Yes definitely, somewhat, not much, no



Q1 What educational outreach curriculum needs have you identified related to food system resilience?

Q2 What research gaps exist related to food system resilience?

Q3 Which community partners might be interested in working on food system resilience research, education or solutions?



Q4 Might you consider working collaboratively to develop a research project or educational curriculum related to today's webinar topic?

Q5 Are you available to participate in a future webinar presentation?



Food Systems Resiliency Webinar Series #4

10 to 11 am

Beef Supply Chain and Market Disruptions during COVID-19

Registration at: https://ucanr.edu/survey/survey.cfm?surveynumber=30628

2020 has shaken up the beef industry across the nation from global trade to national processing and local beef sales at the farm gate. The UC ANR Food Systems Resiliency Webinar on August 25 from 10 to 11 will feature 4 speakers for a deeper look at beef production direct sales and ranch to table operations. **Dr. Tina Saitone**, Associate Cooperative Extension Specialist, Agricultural and Resource Economics will discuss beef national markets, supply chain disruptions and consumer demand. **Lori and Kirby Swickard** with 5 Dot Ranch with a cattle grazing operation in Northern California, along with a butcher shop and restaurant in Napa will discuss ranching during COVID-19, with a special focus on vertical integrated operation. Lastly, **Morgan Doran**, UC Cooperative Extension Livestock and Natural Resources Advisor will provide up-to-date information on the regulatory challenges with direct farm sales.

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