

Drought Preparation and Adaptation for First-Generation Livestock Producers

Background

First-generation ranchers and shepherd operations are diverse in scale, land tenure, and use of species and breed of animals. A Western Sustainable Agriculture Research and Education (SARE) state-wide study of first-generation producers raising beef cattle, dairy, sheep, and goats was carried out from 2017-2018 to understand commonly used drought adaptation practices and information sources. Many new producers are experimenting with new management and drought adaptation strategies based on differences in operations, land tenure, goals, capacity, and location.

Drought Strategies

Drought management strategies need to be adapted for your operation, capacity, environment, and goals. Many first-generation producers are experimenting with new strategies that align with land and animal management goals as well as their capacity to manage for drought. There is no one-size fits all solution, instead a portfolio approach is used with multiple practices to prepare and respond to drought based on needs. Table 1. lists common proactive and reactive practices new ranchers and shepherds report using in California.

While many new producers rely on selling animals and buying feed during droughts, there are a number of proactive strategies for producers of diverse scales, land tenure, and capacity. Closely monitoring forage quality and weather patterns allows producers to quickly adapt to changes. Beyond selecting species and breeds suited for drier or wetter climates, many first-generation ranchers use selective breeding to expand the types of forage their animals will consume to cut down on the need to buy feed.

Building relationships to increase access to land, particularly land in diverse bioregions is a critical aspect to adapting to drought and other climatic events. As new producers lack the capital to buy land, developing informal land tenure agreements allows mobility so you can increase your flexibility in drought responses.



Figure 1. Many new livestock producers rely on low-input and creative drought adaptation strategies

CASE STUDIES

A **sheep producer** on the Central Coast relies on mobility by using contract targeted grazing to maintain access to diverse bioregions and build relationships with land owners for water access.

A **cattle rancher** in the Sacramento Valley foothills used NRCS funding for a water improvement project to build new wells and increase water access. In addition, they use high density grazing to build soil organic matter and increase water retention.

Goat producers in Southern California commonly choose goats specifically bred for desert climates for their ability to eat diverse forages and withstand intense heat.

Proactive Strategies	Reactive Strategies
Build soil health and permeability	Destock and cull unproductive animals
Water improvement projects	Purchase feed
Select species and/or breeds adapted to climate	Purchase water
Diversify operation by adding other livestock & crops	Move animals to another location
Increase access to land in diverse bioregions	Earn off-farm income
Holistic management land planning	Rotational grazing between parcels
Destocking plan	Wean early
Conservative stocking rate	Apply for gov't assistance

Table 1: Common proactive and reactive practices reported by first-generation ranchers and shepherds in California

Information & Financial Assistance for New Livestock Producers

There are many different avenues for drought management information and financial assistance for ranchers. One of the first sources of information and advice are fellow producers, particularly neighbors. Networking with both first- and multi-generational producers is invaluable to gaining place-specific knowledge.

Table 2. lists commonly used resources reported by first-generation ranchers and shepherds in California. Many of these organizations and resources are geared towards diversified producers, new, beginning, young and those experimenting with new strategies.

Many of these organizations have active Facebook and Twitter accounts to share events and new information. These organizations provide information for drought and climate adaptation, as well as funding, land access, and innovative research. Many also organize events and workshops that provide opportunities for engaged discussions and networking with fellow producers.

Financial assistance for operations and drought relief is not limited to only ranchers who own land. There are funding sources through the FSA and the CA Farm



Figure 2: New ranchers selectively cull for diverse forage consumption in order to reduce the need to purchase feed during droughts.

Credit that focus on new, young, and beginning farmers and ranchers. These have regional offices in California with representatives that can help new ranchers decide on the best financing and loan options.

University of California Extension provides place-specific resources at the county and state level for livestock and crop producers. First-generation livestock producers recommend integrating national level resources, particularly those who are interested in experimenting with new and sustainable practices such as SARE and ATTRA.

Organization	Website	Cattle	Goats	Sheep	Loans
University of California Agriculture Natural Resources (UCANR)	ucanr.edu/sites/Livestock/	X	X	X	
Holistic Management/ Savory Institute	https://holisticmanagement.org/ https://www.savory.global/	X	X	X	
Sustainable Agriculture Research and Education (SARE)	www.sare.org/	X	X	X	
ATTRA	https://attra.ncat.org/livestock-and-pasture/	X	X	X	
California Wool Growers Association	http://californiawoolgrowers.org/			X	
Oregon Sheep Growers Association	http://www.sheeporegon.com/			X	
Michigan State University Extension	https://www.canr.msu.edu/sheep_goats/index		X	X	
CA Resource Conservation District (RCD)	www.conservation.ca.gov/dlrp/RCD	X	X	X	X
USDA Natural Resources Conservation Service (NRCS)	www.nrcs.usda.gov	X	X	X	X
USDA Farm Service Agency (FSA)	https://www.fsa.usda.gov/				X
CA Farm Credit	https://farmcredit.com/customers/ybs				X

Table 2. Common drought information resources and financial assistance used by first-generation ranchers

Key Points

- Choose a portfolio of drought strategies and financial assistance that fit your operation, location, capacity, and scale.
- Networking at events, workshops, and via social media to build relationships with fellow first-generation producers, multi-generational producers, and organizations is one of the best strategies for strengthening your adaptive capacity.
- For place-specific information, check with UC Extension, RCD, NRCS, and producer groups.
- National information hubs are great resources for drought information and general operation and management strategies.