

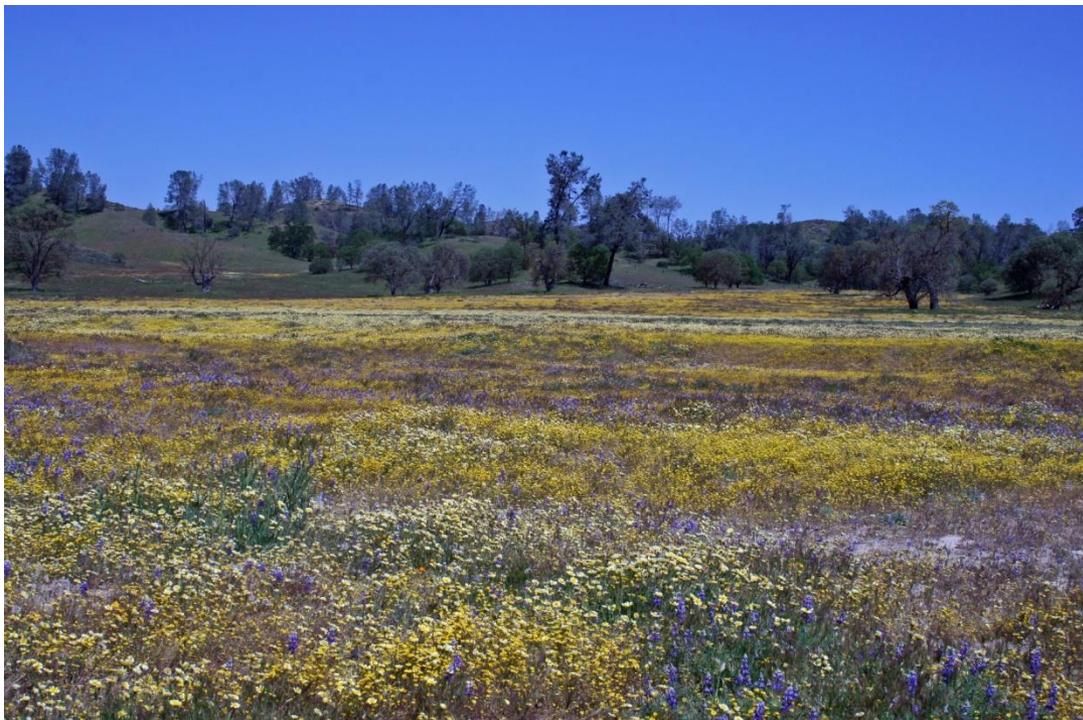


University of California

Agriculture and Natural Resources ■ Cooperative Extension

San Benito County Weed Management Area 19th
Annual Seminar for Ranchers

Grazing for weed control: when are weeds palatable and nutritious



Royce Larsen
UC Cooperative Extension

Livestock Have Nutritional Needs

- Livestock need 1.5 – 3.5% of their body weight in forage daily ~21 lbs per day
- This forage needs to be 7-15% Crude Protein, depending on their condition, e.g. just body maintenance – or lactating.
- Other nutrients....



Photo From: Mike Hall

Livestock on rangeland get their forage from grazing or supplementation

What does rangeland provide?

Common forage species include a variety of Annual Grasses & Winter Annual Forbs

Annual Grasses:

- Soft Chess Brome
- Annual Fescue
- Wild Oat
- Ryegrass
- Red Brome
- Foxtail
- Purple Needlegrass

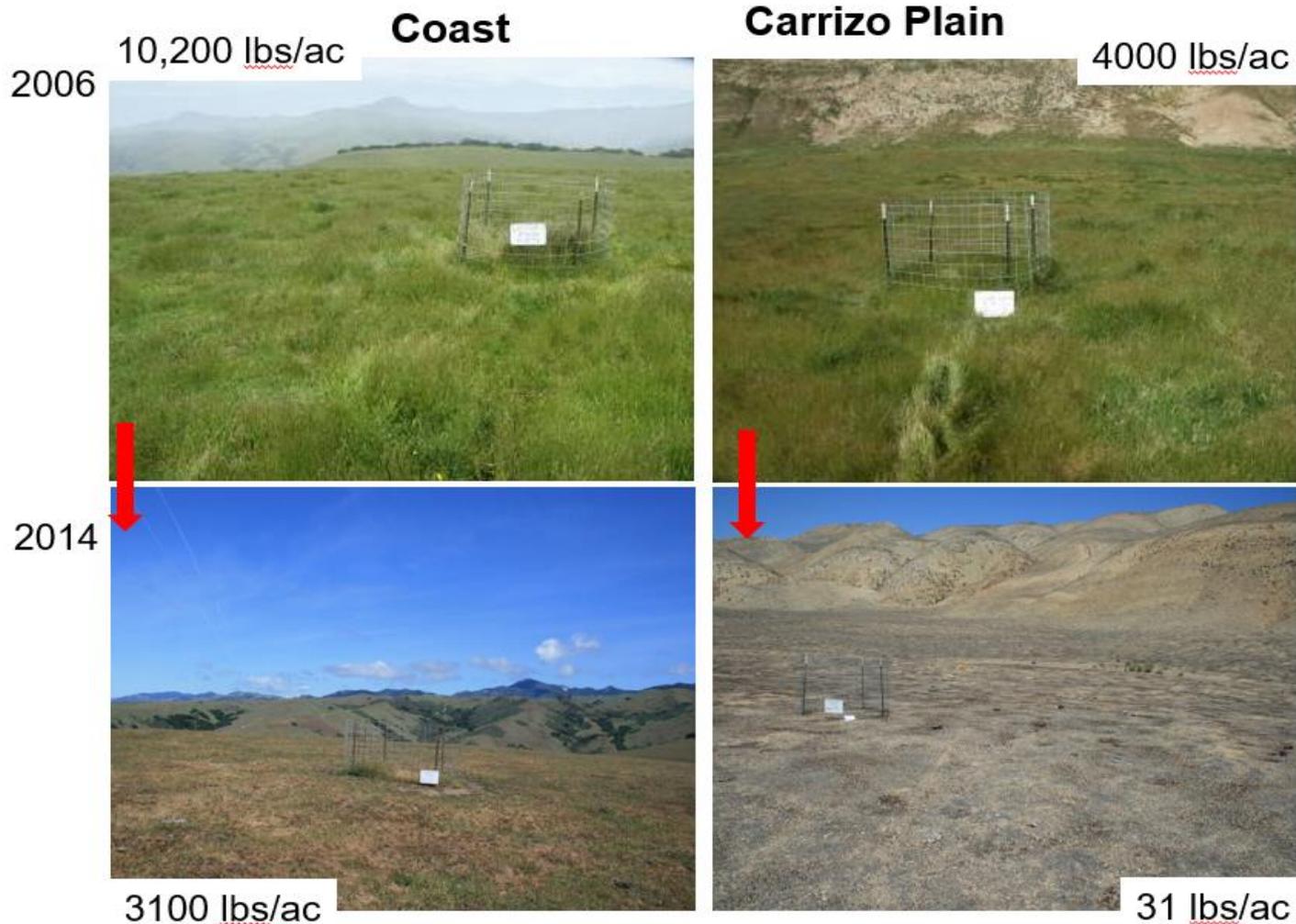
Winter Annual Forbs:

- Filaree
- Bur Clover
- Clovers
 - Trifolium
 - Deer Vetch
- Purple Vetch



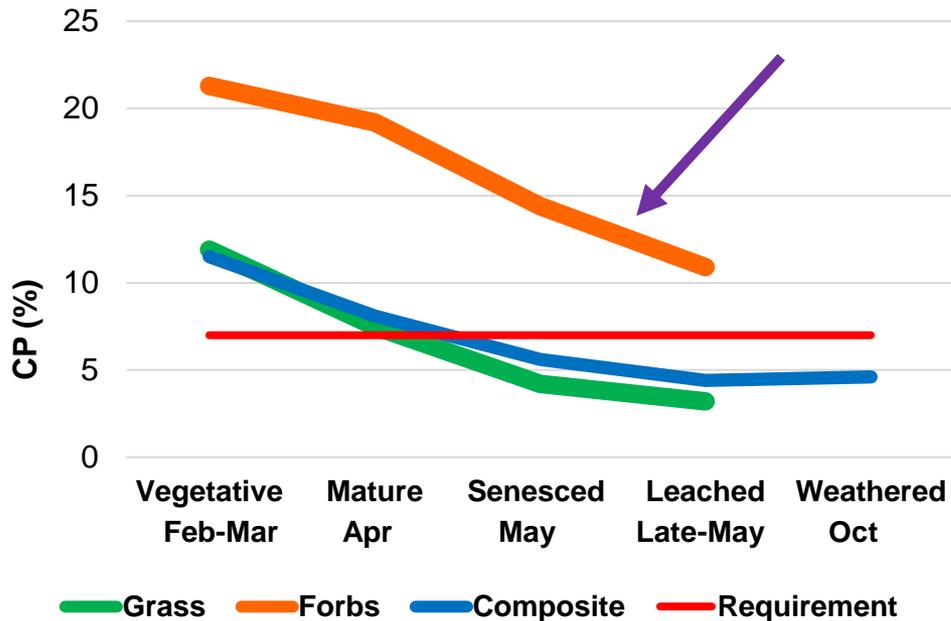
How much forage grows? When does it grow?

Rainfall is the Driver



<https://youtu.be/-X8qcl1kXng>

Crude Protein



Mature - April



Senesced (Dry) - May



Weathered - October

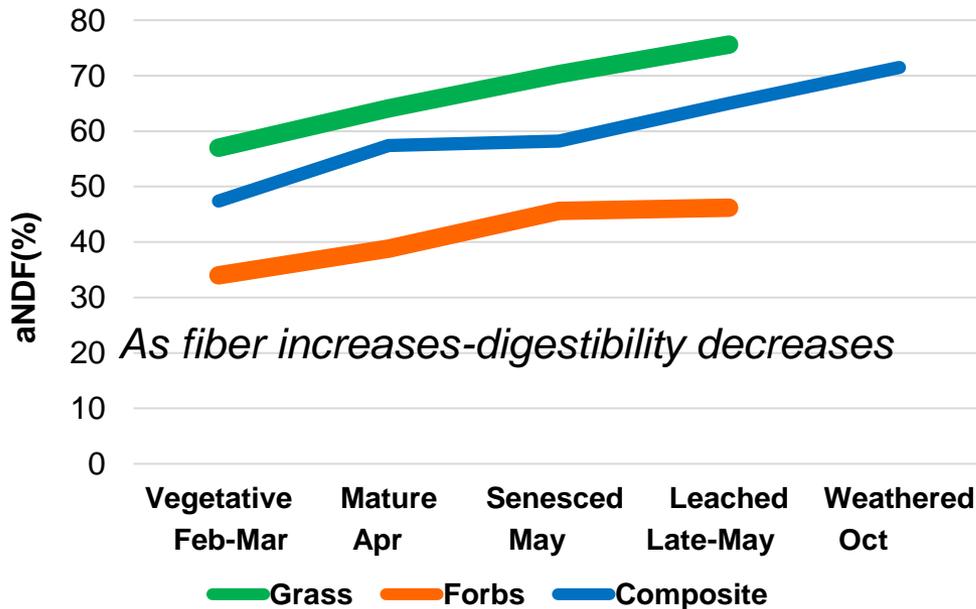


High

Nutritional Quality

Low

Fiber



Once the main forage (annual grasses, winter annual forbs) dries up – and nutrient levels have dropped and digestibility is lower, then what?

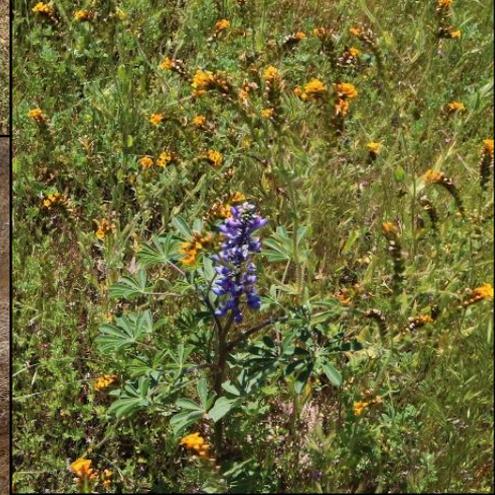


Supplementation

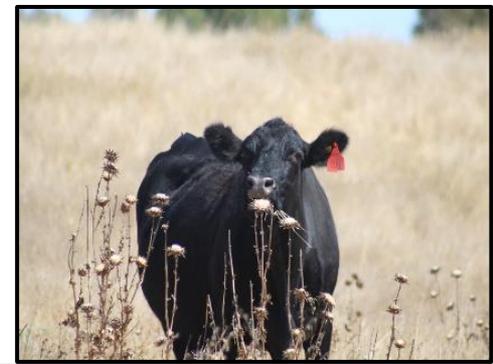
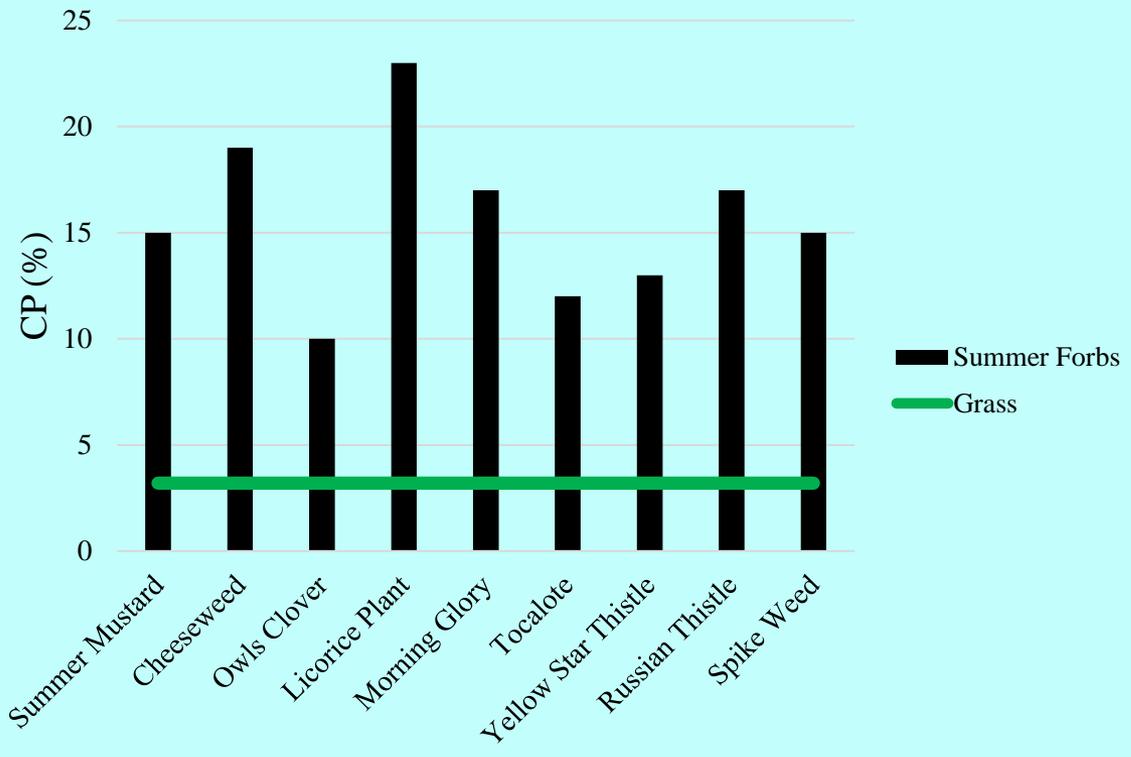
Summer Annual / Biennial Forbs

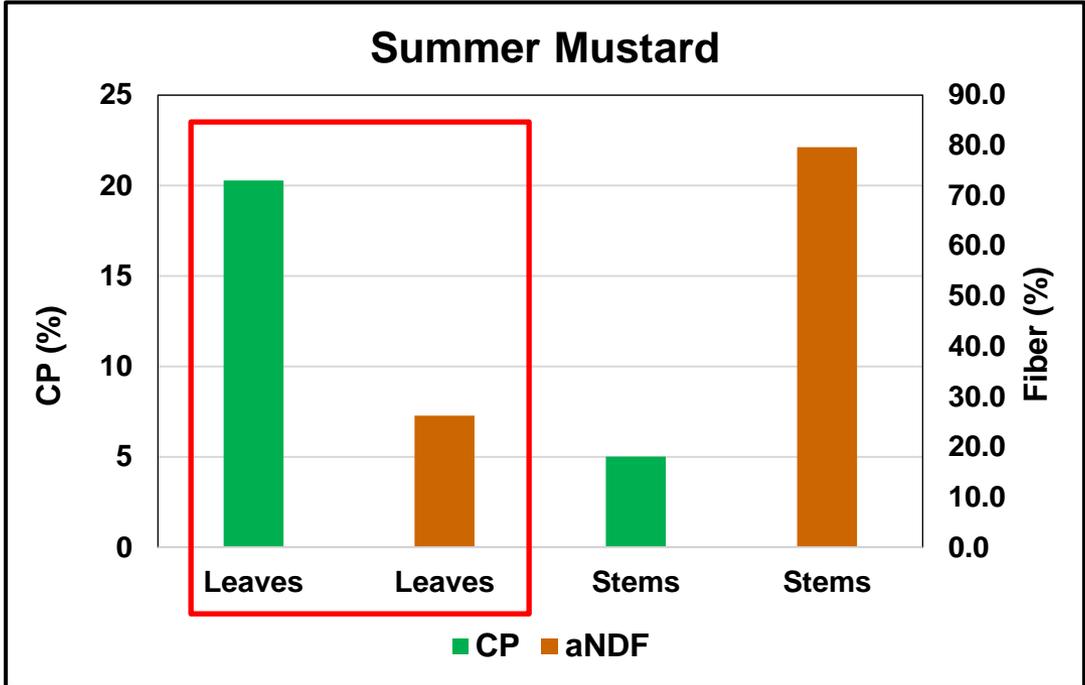


Summer Annual / Biennial Plants

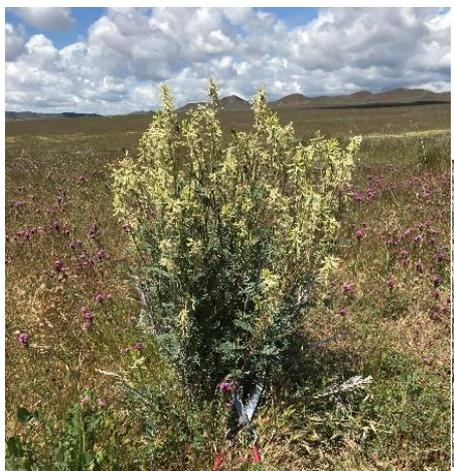
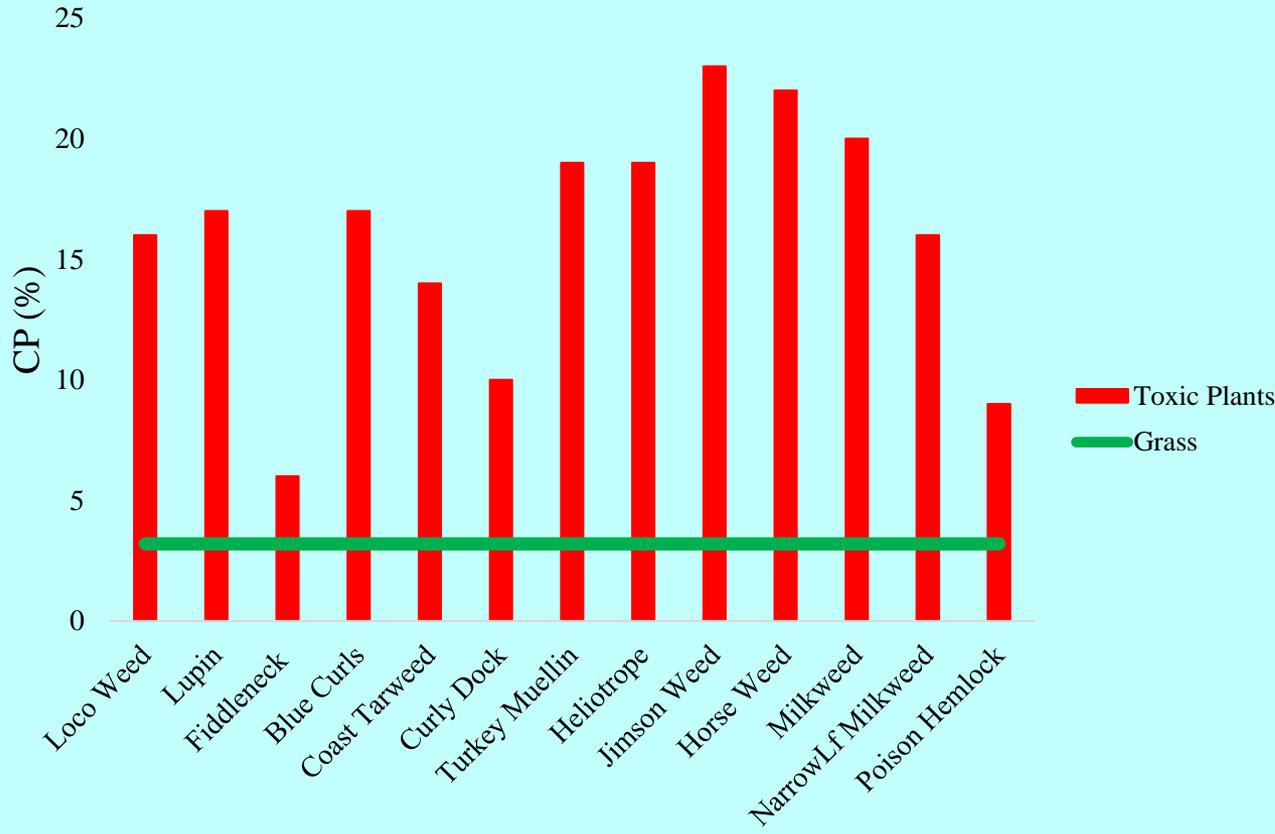


Crude Protein of Summer Annual / Biennial Forbs





Crude Protein through the Summer Months



3 Examples of teaching livestock to eat weeds

1) Teaching Livestock to Eat Weeds: A Livestock Manager's Experience with High Density / Short Duration Grazing



Aaron Lazanoff, beef operations manager at Cal Poly

Cattle learned to eat cheeseweed, summer mustard, Italian thistle, milk thistle, bristly ox-tongue, teasel and fennel

Result: He decreased his protein supplementation because the cattle were eating these summer growing plants with higher CP levels

Look for Side Bar In: *Larsen Royce E., Daniel Cook, Dale R. Gardner, Stephen T. Lee, Matthew Shapero, LynneDee Althouse, Michael Dennis, Larry C. Forero, Josh S. Davy, Devii R. Rao, Marc Horney, Katie Brown, Craig W. Rigby, Kevin B. Jensen 2021. Seasonal Changes in Forage Nutrient and Toxicity Levels on California Central Coast Rangelands-A Preliminary Study. Grasslands Journal – In press.*

2) Teaching Livestock to Eat Weeds: Using Supplements to Distribute Livestock



May/may not teach livestock to “actually eat weeds”, but will help with distribution

George, M.R., N.K. McDougald, W.A. Jensen, R.E. Larsen, D.C. Cao and N.R. Harris. 2008. **Effectiveness of Nutrient Supplement Placement for Changing Beef Cow Distribution.** *Journal of Soil and Water Conservation* 63(1):11-17.

3) Teaching Livestock to Eat Weeds: Training Livestock to Eat Weeds

<http://behave.net/>



<https://www.livestockforlandscapes.com/cowseatweedsbook.htm>



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ANIMAL
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MANAGEMENT

BEHAVE is a research and outreach program that seeks to understand the principles of animal behavior.



1 2



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"Kathy Voth has done a fantastic job of using behavioral and nutritional principles to develop a low-cost, proven method to teach cows to eat weeds."
Beth Burritt, BEHAVE Director of Outreach, Utah State University

"You have done an excellent job presenting the what, why, and how of weed management. Your research should be in the hands of anyone wanting a safe, sure, and sane method of weed management"
Aron Brackeen, Range Manager

Cows Eat Weeds - The Book

In 2004, Kathy Voth developed a revolutionary process for training cows to eat weeds in as little as 10 hours over a 10 day period. Trained cattle gain weight at expected rates, and teach their herd mates and offspring. Even better, trained cows become more open-minded about forage in general and choose other pasture weeds on their own. With this book Voth shares her training methods and the science behind them. Complete with troubleshooting tips, step-by-step worksheets and a recipe for building your own training plan, this book makes sure you'll have your cows eating weeds this season! You'll find out:

- What really makes a plant palatable,
- How creatures choose foods and protect themselves from toxins in plants,
- How to use a cow's natural behaviors to get her to eat a weed in as little as five days.

Look Inside: [Table of Contents](#) [Book Excerpts](#)

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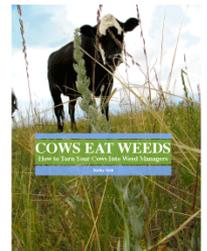
Book + Teaching Cows DVD in the U.S. \$80.00 USD

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For more about the DVDs:

[Teaching Cows to Eat Weeds](#)

[Cows Eating Weeds is the New Frontier](#)



\$38.00 plus Shipping and Handling

Paperback, 8 1/2 x 11, 160 pages, full color photos throughout so you can see the training process in action.

Prefer not to use PayPal?

Send an email (kvoth@livestockforlandscapes.com) for information on how to use your check or money order

We have had success training livestock to eat weeds here on the Central Coast

Using the principals develop by the BEHAVE and Livestock for Landscapes Methods



In Closing:

More information about nutrient and toxin levels for many range plants will be available in a publication coming soon in Grasslands Journal.



<https://cnga.org/Grasslands-Journal>

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