

Cows Eat Weeds: How to Turn Your Cows Into Weed Managers. By Kathy Voth. 2010. Livestock for Landscapes, Loveland, CO, USA. 160 p. US\$38 paperback. ISBN-10 0-9843390-0-6, ISBN-13 978-0-9843390-0-6 (Available from www.livestockforlandscapes.com).

In the first chapter of her book, Voth mentions that an earlier reviewer once asked, “Is this a book about the science of how animals choose what to eat, or is it a “how-to” book? Voth answers that it is both. I agree. This softcover book (\$38) and companion 30-minute DVD (*We'd Eat It*; \$35) do a nice job of blending our understanding of the art and science of animal foraging behavior principles toward refining a “new” vegetation management tool that has been around several thousand years. The book begins by summarizing key scientific discoveries and principles that underlie animal foraging behavior. Following these principles, a comprehensive four-step approach is presented that managers could use to train up to “110 cow-calf pairs” to eat a variety of weed species in “as little as 10 hours over a 10-day period” (sometimes even shorter time intervals) in an array of vegetation types and settings.

The book is organized into 15 unnumbered chapters, followed by a short glossary, a list of weeds that cows have been observed or trained to eat, and an index. Roughly the first third of the book is devoted to providing numerous examples of scientific studies that have demonstrated how animals learn what (and how) to eat. The next third presents a detailed outline of the four steps that Voth has developed to train cows to eat weeds, typically broad-leafed herbaceous problematic plants, such as knapweeds, thistles, leafy spurge, toadflax, and bindweed. The last third of the book summarizes practical “lessons from the pasture” and includes a brief discussion of goal setting and monitoring. Significant experiential case studies and interesting quotes appear in sidebars throughout the book.

The book’s organization gives readers the flexibility to learn in ways that best fit their learning styles and needs. For example, if you are interested in learning about scientific principles that have been used to train animals to accept certain forages or weeds, you should read this work from beginning to end (I highly recommend doing this). If you are more interested in immediately getting started training cows to eat weeds, you might first read about the four steps and then peruse other sections of the book that may be more relevant to your situation. The DVD is excellent and nicely complements key points outlined in the book. The book and DVD can be purchased as a package deal for \$68.

No review would be complete without a few criticisms. The book correctly laments that there are few, if any, examples of weeds being eradicated with any single tool, but then suggests that with certain modifications in grazing practices “you may be able to eradicate [a weed] over time.” Although the book’s photos and DVD clearly demonstrate successes with training cows to become weed eaters, little hard data are presented to complement the images and videos. The list of weeds that cows eat would be more complete if there were a companion list of excessively toxic weeds that should be viewed with caution or avoided. The monitoring chapter seems misplaced, appearing before the goal-setting chapter. Lastly, chapters are not numbered and there are a few typos in the book.

Aside from these relatively minor criticisms, I enjoyed this book. Voth provides a treasure trove of information and experience that she has gained during countless hours spent training both wild (even bison!) and domesticated ruminants to become “vegetation managers.” The book is generously populated with pictures and graphs that illustrate the general ideas in the text. Sidebar quotes often make one think about how important human behavior is when training animal “colleagues.” One particular quote by Albert Einstein stated “I never teach my pupils. I only try to provide them with conditions in which they can learn.” In this light, Voth’s book explains many tactical training ideas that humans can implement to provide the conditions necessary for animals to learn to become strategic vegetation managers. Although the book’s focus is on training cows to become weed eaters, it will be an excellent resource for anyone who is interested in how managers can learn to use animal behavior principles to their advantage to improve the sustainability of the land while making a living from the land.

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