

# Wild About Weeds

*Cattle can be trained to eat — and control — Canada thistle and other weeds.*

Story by **KINDRA GORDON;**  
photos courtesy of **KATHY VOTH**

Leafy spurge, Canada thistle and spotted knapweed — those aren't exactly the forages you'd expect cattle to eat.

However, over the past decade, a growing number of researchers and ranchers are beginning to believe cattle can be trained to eat weeds. Among them is Valier, Mont., rancher Tom Christiaens, who trained 15 heifers and a bull to eat Canada thistle last summer.

Christiaens and two fellow ranchers — Darryl Habets and Maurice Tacke — were part of a pilot program training cattle to eat weeds. It was funded through the Montana Farmers Union and based on similar programs successfully conducted in that and other states.

The five-day training process was "very simple," says Christiaens. Soon afterward, his heifers were eating thistle

tops along an irrigation ditch where weeds tend to be a problem.

Having the cattle trample and break plants in the thistle patch also seemed beneficial. He hopes that the trained cattle will pass the preference for weeds on to offspring this summer.

## Based on behavior

Training cattle to eat weeds is a concept developed by Kathy Voth of Loveland, Colo., in 2004. Noting that most weeds tend to run between 11% and 21% crude protein, and because they have less stem and more leaf, Voth reports that weeds are quite digestible by cattle.

Voth now operates a consulting company, Livestock for Landscapes, which has trained more than 1,000 cattle around the country to eat a variety of weeds — even thorny ones like diffuse knapweed and Dalmatian toadflax.

Her approach to using cattle to control

weeds comes from studying decades of animal behavior studies, including work by Fred Provenza, emeritus professor in the Wildland Resources Department at Utah State University. He studied how animals choose what to eat, which led to Voth's focus on teaching cows to eat weeds.

Before putting cattle through the seven- to 10-day training that Voth suggests, know which weeds can be targeted and avoid toxic plants (see sidebar). Then choose which animals to train. Voth suggests using younger animals, or those less likely to be culled. She likes working with heifers and cow-calf pairs, but says steers and bulls learn, too.

Train a small herd that will then train offspring and the rest of the herd, she adds. Voth typically trains 25-50 animals per project in pastures using recycled supplement tubs. She does not recommend troughs.

The key to Voth's training is establishing a daily routine of feeding animals something nutritious but unfamiliar. This gives them positive experiences and makes them feel comfortable enough to try new feeds. She feeds a new product twice a day for four days and introduces a chopped target weed on the fifth day. Cattle eat it because it's just one more new thing in their routine of new feedstuffs to try.

Here's the kind of feeding schedule she suggests:

Day 1: morning — alfalfa pellets; afternoon — half alfalfa pellets, half rolled corn.

Day 2: morning — rolled corn; afternoon — rolled barley.

Day 3: morning — beet pulp pellets; afternoon — soybean flakes.

Day 4: morning — wheat bran; afternoon — hay cubes.

Day 5: afternoon — chopped target



**Above:** Over the past decade, a growing number of researchers and ranchers are beginning to believe cattle can be trained to eat weeds.



**Right:** Most weeds tend to run between 11% and 21% crude protein, and because they have less stem and more leaf, Kathy Voth of Loveland, Colo., reports that weeds are quite digestible by cattle.

weeds mixed with one of the above-mentioned feeds.

Day 6: target weeds with less feed mixed in.

Day 7: only feed weeds.

### Training tips

Voth explains that she does only one feeding on Days 5, 6 and 7 as a means to keep the animals curious.

“When routines are broken up and animals are rewarded intermittently,” she says, “it reinforces the behavior of coming to the tubs because they never really know when they’re going to get their snacks. I’ve found that not breaking up the routine begins to spoil the cows, and I have to work harder to get them to try new foods.”

She adds that chopping the weeds isn’t essential, but it helps ensure each cow gets some weeds to eat during training. Voth says, “When I don’t chop up the weeds, they get tangled and when the cow pulls one out of the tub, she pulls them all out. I like the cows to eat from the tubs because it increases

competition, so I chop them into cow-bite-sized pieces.”

She typically trains the core group of animals in a pasture setting, and then at the end of the training returns them to the larger herd where they begin to seek out weeds on their own in the pasture.

After Christiaens’ cattle went through the training, they were turned out with other cattle and started eating some musk

thistle as well as Canada thistle, says the rancher’s brother, Chris Christiaens. He works with the Montana Farmers Union, helping to coordinate weed trainings.

Pastures that the brothers tested showed Canada thistle didn’t grow past 5 inches tall, which means it didn’t produce the seedheads that would cause it to spread.

Voth believes this manner of managing

weeds is cheaper, more efficient and just as effective as herbicides. Plus, she emphasizes that thistles don’t harm cattle.

Best of all, trained cows will continue to eat weeds year after year and add new weeds to their diet without additional training, Voth stresses. They’ll train others in the herd to eat weeds.

For more information, visit [www.livestockforlandscapes.com](http://www.livestockforlandscapes.com).



### These weeds should be safe

Here’s a partial list of weeds that are edible and nontoxic for cattle to consume, says Kathy Voth:

- Black mustard
- Blackberry (*Rubus spp*)
- Bull thistle
- Canada golden rod
- Canada thistle
- Coyote bush
- Diffuse knapweed
- Distaff thistle
- Field bindweed
- Field Scabious  
(*Kautia arvensis*)
- Horehound
- Italian thistle
- Leafy spurge
- Milk thistle
- Multiflora rose
- Musk thistle
- Purple starthistle
- Rabbit brush
- Russian knapweed
- Russian thistle  
(Tumbleweed, *Salsola kali*,  
*Salsola tragus*)
- Sow thistle
- Spotted knapweed
- Wild rose
- Willow
- Wormwood sage
- Yarrow
- Yellow mustard
- Yucca (leaves and blossoms)