

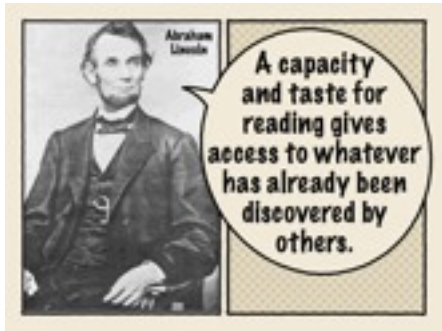
Train Your Cows to Eat Weeds
Kathy Voth Presentation to VFGC Meetings 1/17-20/2012



How to Train Your Cows to Eat Weeds
 Kathy Voth, Livestock for Landscapes
 Presentation to Virginia Forage and
 Grassland Council, 1/17 -1/20 2012

I come from a long line of Mennonite Famers. In the late 1700s Katherine the Great invited them to the Ukraine to create the Russian breadbasket. In the late 1800s when they lost draft deferment, they didn't give up being conscientious objectors and they took their winter wheat and moved.

This is my grandpa's farm in Kansas. I thought my Grandpa hung the moon and I loved doing anything with him, including chores. At some point he was going through hard times and after we were done with chores, we would sit in the car in the garage and he'd tell me how hard farming is.



I don't know why he told a 10-11 year old girl those things, but it really left me with a desire to help. And that's one of the reasons I have worked so hard to figure out how to teach cows to eat weeds - I just want to help farmers and ranchers who work so hard to make food for us all.

Another thing you should know about me is that I have no formal training in this topic. I have a BA in Russian with a minor in French and a Masters of International Management. I have learned everything I know from reading and from working with really smart people.

That's important because you can read too! And you can do this, just like I can.



This is the most important step. You must be sure that your target weed will not harm your animals before you eat it. If you have questions, visit my website or contact me.

I used to tell people to train young females, but now I say choose animals that will be staying on the farm or ranch, and work with the ones that make it easiest logistically.



The cows have shown me that they can all learn. Now days I especially like working with cow calf pairs because if the cows aren't trying things, the calves will.



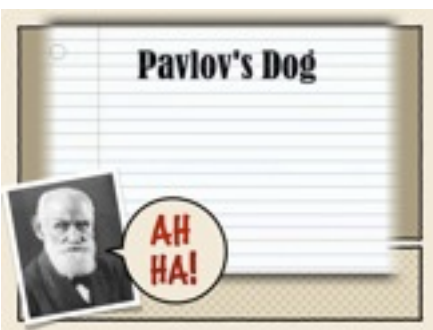
Animals need to be in a good physical state to process toxins in plants. If you starve an animal onto a new food she'll have a bad experience and may never eat that plant again.



I usually work with 25 to 50 animals at a time.



This is how we get an animal to WANT to put something strange in its mouth.



I went back to science to see how to do this. Pavlov's dog showed me that routine was important. The dog drooled when he knew he was going to be fed, so Pavlov began ringing a bell before feeding. The dog began to associate the ringing with food and started drooling when he heard a bell ring.



Skinner's research showed me that animals could learn to read and press levers for a food reward. I realized that good feedback from the foods in the tubs would be rewards for my students and they would learn to try new things.



USU's Dr. Carl Cheney's research reinforced the idea of rewards.



From Fred and his colleagues at USU I learned that it seemed to take about 7 tries for an animal to get comfortable with a new food, so I translated that to how many times I wanted to feed new foods to my students.



Since we don't know which toxins and nutrients offset each other, and we know from Juan Villalba's research that animals can self-medicate, I knew that variety in pasture was key to my success.



Here's my routine. Animals see my truck and the tubs and associate them with food. I also honk or call them so they have a sound cue too. You can use what works for you.



I use recycled 250 lb. supplement tubs. I've tried troughs and feeding on the ground, but they don't encourage competition in the same way. The high sides of the tubs prevent cows from seeing what their friends are eating, so they grab whatever they can get.



Morning and afternoon for 4 days I feed unfamiliar, nutritious foods, a different one at each feeding. I pick bags of feed based on providing a variety of textures, smells, sizes and flavors.



On day 5 I skip the morning feeding. (It's an animal behavior thing I can explain elsewhere.) In the afternoon I mix weeds with something the students have tried before and put it in the tub.



On day 6 I feed once in the afternoon again, this time mixing the weeds with less of the familiar food.



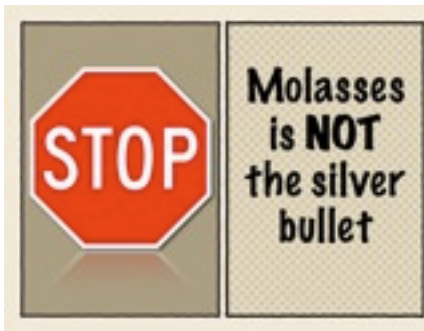
On day 7 the cows eat the weeds plain.



How many weeds do you need? Loosely fill one tub for 25 animals and 2 tubs for 50 animals.



You've seen this already in the "Science and Theory Presentation." You can see a portion of it at <http://tinyurl.com/cowseatdiffuseknawweed>. You can order a 30 minute video, suitable for showing to groups, describing 3 years of results from this project at <http://www.livestockforlandscapes.com/newfrontier.com>



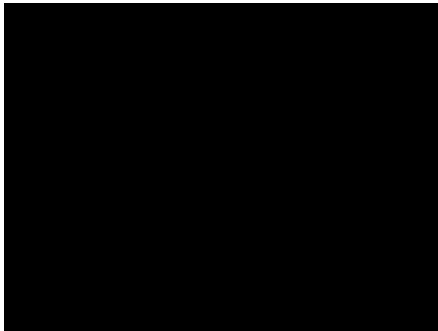
It's the training process that opens cows minds to the idea that food could be all kinds of things. See my blog to hear more about this story: <http://www.thetaoofcow.com>



When I started training I made trial pastures so that I could be sure cows were eating the weeds. Now they've shown me that if I just train them in pasture and then watch to see what they're eating, I don't have to take this step.



The training process opens cows minds and over time cows begin to eat everything in pasture. If they don't eat what you want them to eat and you know it's safe, bring back the tubs, drop some of the plant in them, and you'll have them trained.



This video shows Boulder County Cows eating all kinds of things I never trained them to eat. I checked them out and found they were all much higher in protein than the pasture grasses. If you purchase the DVD "New Frontiers" You can see a complete training process and this video too: <http://www.livestockforlandscapes.com/newfrontier.htm>



It's important that you slow down so you can pay attention to your students. That way you can figure out what to do if they're not doing what you want them to do.



I never use molasses anymore unless the farmer/rancher is nervous, or if I'm nervous. Animals pick up on our stress and won't eat if we are nervous. Spritzing on molasses seems to help us and then the cows are successful too. You can make great cookies with the leftover molasses.



I've created some assumptions just by the videos I've shown you. So here are some more videos so you can have a better idea of what might happen



This video shows how slowly cows might try things out of tubs. You can see it here: <http://www.tinyurl.com/cowstryfoods>



People laugh and like to see cows running to tubs, so I show lots of video like that. They don't always run though.



Here's a video showing how fast they come to tubs, or not. You can see it at: <http://www.tinyurl.com/cowsruntotubs>



At conferences I help folks with their own training needs.



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