



Livestock for Landscapes

CONTACT

Kathy Voth

OFFICE

6850 West County Road 24
Loveland, CO 80538

PHONE

970-663-6569

CELL

970-260-2185

EMAIL

kvoth@livestockforlandscapes.com

WEB

www.livestockforlandscapes.com

For more on behavior principles visit

www.behave.net

Behavior Principles

1. Behavior Depends on Consequences

Animals do what they do and form habits based on the consequences of their actions. If the consequence is positive, the animal will eat that food, or do that behavior again. If it's negative, of course, they won't do it again.

It's a simple idea, and one we use every day. We use it to keep cows in pastures with a thin line of electric fence, knowing they won't risk the consequence of a shock. We use it to train our pets by offering them treats whenever they do as we ask. But we could use it for so much more. For example, we can use this simple idea to change what and where your animals eat so they:

- do the dirty work of ridding your farm or ranch of weeds,
- are prepared for and gain weight more quickly in feedlot,
- stay out of streams and ponds,
- improve habitat for wildlife, and
- make better use of available forage

2. Early Experience Matters Most

Animals have to learn what to eat.

An animal's mother is the biggest influence in determining what foods it eats and where it lives. Demonstrations show that lambs who ate wheat with their mother will remember it 3 years later when they are fed it again, even though they haven't seen it since the first time with their mothers.

Animals also learn from their herd mates. For example, 4 does with different diets were all placed on an island where all the foods they ate grew. Over four generations, their offsprings diets became more and more similar. They all ate, ALL the foods that their herd mates ate. Interestingly, the researchers could trace each kid back to the original doe because it always had a greater preference for the foods she had always eaten.

For producers this means that you can help your animals prepare for what they'll be eating as adults, by feeding it to them when they are young and with their mothers.

3. I've never tried it but I don't like it!

All creatures are afraid of new things, or "neophobic." That's why they may not eat new foods, or new weeds in their pastures. Or they may be uncomfortable in new environments, like feed lots, or strange pastures. They're afraid because they don't know what to expect. Animals do what they've always done until they have to change in order to survive.

Change increases stress and can cause illness and decreased performance. Therefore when we ask an animal to try a new food or live in a new place we need to manage stressors.

If you have livestock headed to a feedlot, one way to reduce their stress is to let them get used to the foods they'll be eating there before you send them.

4. Palatability is more than a matter of taste.

Now this is a little complicated so bear with me.

We now know that foods taste good or bad because of the feedback our bodies get from the nutrients and toxins they contain. Foods high in nutrients tend to taste better to us, than foods high in toxins.

Of course, our bodies change, and so do the levels of nutrients and toxins in plants. Based on ongoing feedback and our individual needs, we adjust how much and what we eat.

All plants contain toxins, but that doesn't make them toxic. The dose or level of

toxins has to be high in order to cause death. So, animals can eat foods that contain toxins. They sometimes just limit how much of that food they eat.

Now scientists are looking at the interactions of nutrients and toxins. They are finding that some nutrients offset the effects of some toxins, and even that some toxins offset other toxins. They've even found that animals can figure this out, given a good learning environment, so that they can eat more of foods containing toxins.

It is complicated, so one of the things you can do, is make sure your animals have plenty of variety - see the next principle!

5. *Variety is the spice of life*

We've learned that animals meet their needs by eating mixed diets.

Providing animals with a variety of foods, whether in confinement or on pastures, may increase how much they eat, reduce stress, and increase efficiency. Animals with access to a variety of foods may also increase their intake of formerly unpalatable forages because nutrients and toxins may have offsetting or complementary properties.

Every animal is different and has its own preferences and nutritional needs. Offering variety allows each animal to meet its own needs. Trials with animals in pens show us that animals will mix their foods to meet their individual needs and will include foods high and low in nutrients depending on their previous experiences.

In fact, in one experiment steers allowed to choose from elements contained in a Total Mixed Ration, gained as much weight as steers eating a Total Mixed Ration. But the steers with choice gained their weight for 20% less cost.

Now that's variety that makes a difference!

6. *Even old dogs can learn new tricks.*

Since behavior depends on consequences, all animals develop habits based on the positive consequences of what they've always done.

To teach an old dog new tricks we need to understand these behavior principles, and then give the animal new consequences.

The positive consequences of trying new nutritious foods, as part of the training process I use to teach cows to eat weeds, makes them more willing to try other new foods. The positive consequences from a new, nutritious weed can change a cow's habits and she'll eat the weed in pasture.

Sometimes it's hard to know what is positive or negative for a creature. If you don't get the behavior you want, you'll just have to change the consequence.

Last but not least positive consequences are always stronger and last longer than negative. If you use a positive consequence you'll rarely go wrong

7. *Relationships make all the difference.*

Successfully making changes requires first that we think about the variety of different elements in our system and how they may influence each other. When something doesn't work as we anticipated, we reexamine our assumptions.