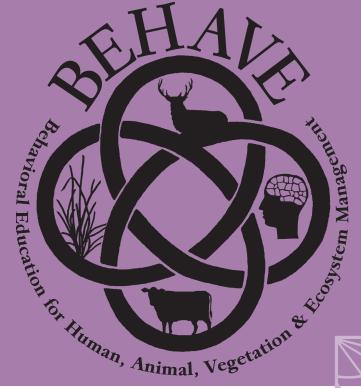


Preparing Animals For Moving Day



Think for a moment how you react when you visit or move to a new place. Are you disoriented and maybe even a little frightened? Do you prefer to go to new places with friends or alone? How do you choose where to eat? Do you ask someone local or do you settle for something familiar like McDonald's, even if you hate the food?

When moved to a new location, livestock and other animals face many of the same challenges we do. In fact, moving to a new location is generally much harder for livestock than for people because animals don't have the luxury of fast food chains, road maps or signs.

Animals raised in a particular location learn about foods and habitats through social interactions with the herd and through trial and error learning. But when animals find themselves in new surroundings either because they are forced to move, or due to catastrophic events, such as fires or floods, much of the knowledge they acquired about their old environment may be useless or even harmful. Animals in unfamiliar environments suffer more from malnutrition, over-ingestion of poisonous plants and predation than animals in familiar environments.

Moving animals from familiar to unfamiliar environments is stressful both for people and animals. Chronic stress inhibits immune responses, which increases illness and decreases performance of livestock. Forcing animals to move from a familiar to an unfamiliar physical environment, and placing them with animals they may or may not know, causes stress. Harsh handling exacerbates the problem. Lack of familiarity with foods is the final blow. Given this combination of circumstances, animals

are much more likely to succumb to diseases than when physical and social stressors are minimized. So, what can be done?

Choose similar areas. Animals adjust to unfamiliar environments more quickly if they are moved to areas where the foods and terrain are similar to what they have previously experienced. Some producers buy replacement animals only from areas similar to their ranch. Still, no matter how similar a new area may be to a familiar area, animals experience stress. That's why many ranchers insist on raising their own replacement females because animals bought elsewhere and moved to new areas often lose weight, become malnourished, and reproduce poorly.

As a rule, animals that lack experience with the foods or habitats in a new location make the transition better when they are moved from resource-poor environments, where poorly nutritious plants high in toxins are scarce and dispersed over rough country, to resource-rich environments where nutritious plants are abundant. Animals reared in high-resource environments are at a distinct disadvantage—compared with animals reared in low-resource environments—when they are moved to low-resource environments.

While this practice is a good rule of thumb, it doesn't always work. One rancher moved his cattle herd from the mountains of Colorado to the nutritious grasslands of Nebraska. His animals lost weight and reproductive performance was so poor that he finally sold his cows and bought a herd from the area. While it's

Preparing Animals
for Moving Day

possible his cows were simply depressed over the loss of their mountain view, this example demonstrates that animals may perform poorly in an unfamiliar location even if the location is considered prime habitat for that species.

Provide familiar foods. Preparing animals for foods they will eat in new environments improves productivity and reduces illness when animals arrive at their new location. For example, exposing young animals with their mothers to foods the offspring will encounter in the feedlot increases intake. Young animals given only brief exposure with their mothers—1 hour per day for 5 days—remember foods for at least 3 years. Immediate acceptance of food in the feedlot helps reduce stress and illness.

If animals cannot be accustomed to new foods before moving, providing animals with familiar foods when they first arrive to new areas will help ease the transition. For instance, a young man sold some bulls to another man in a neighboring state. After a few weeks, the irate new owner called to cuss and discuss the poor performance of the bulls. The man was shocked and felt badly. He couldn't understand the problem. The bulls were fine when he sold them. At that point, his grandfather suggested they take the new owner a load of hay from the home place, a once-common but bygone practice. They did, the condition of the bulls improved, and the bulls and their new owner were on their way to making the transition.

Moving animals to new environments can be devastating, as Arizona rancher, Mick Holder, discovered. During a drought he moved part of his cows 100 miles from his ranch. Many of the cattle that were moved died from poisonous plants, while the cattle at the home ranch did not. Mick didn't realize animals prefer familiar to novel foods even if the familiar foods are toxic and this response is especially pronounced in unfamiliar environments. When Mick moved his cattle, they ate too much lupine and locoweed because other familiar foods were not available. Furthermore, the same dose of a toxin has a greater effect in an unfamiliar environment compared to a familiar one. Thus, cattle may have ingested amounts of toxic plants that were not lethal in the familiar environment but lethal in the unfamiliar

environment. Providing familiar nutritious food would have helped ease the transition.

Provide role models. When introducing new animals to a new location, it may be helpful to mix experienced and naive animals together provided the animals will graze together in a single herd. Animals prefer to forage with companions instead of strangers and will likely graze as two herds if they are not familiar with each other prior to turnout. Using older animals to model behaviors for younger animals may also be effective. One producer who runs stocker calves runs mature cows familiar with his rangeland with new calves. The old cows act as lead animals for the new arrivals showing them where to forage and what to eat.

Conclusions. We often buy and sell animals and move them to unfamiliar environments without considering where they were raised or their previous dietary experience and then wonder why they don't perform well. Animals performance depends on the amount and type of experience they have with the environment in which they are expected to forage. When bringing animals into a new area managers can help ease the transition by: 1) selecting animals from areas similar to where they will be expected to graze, 2) introducing animals to foods they will encounter at new locations, 3) providing familiar foods at new locations and 4) providing appropriate role models.

Additional Reading:

Provenza, F.D., 2004. Foraging Behavior: Managing to Survive in a World of Change. USDA-NRCS. To view or order: www.behave.net.

Funding provided by Utah Agricultural Experiment Station and USDA-IFAFS. Produced by Utah State University in collaboration with University of Idaho, University of Arizona, Montana State University and the National Wildlife Research Center with research conducted at Utah State University.

