

PRACTICAL APPLICATIONS FOR NATURAL SYSTEMS BISON PRODUCTION

By: ©Bob Jackson, Tall Grass Bison

Presented to the Spring Nebraska Bison Conference – 3-10-2001

Natural systems, what is it and can it be applied to modern agriculture to enhance private producer income?

People in agriculture tend to think of natural systems being showcased for preservation-minded causes. National parks, nature conservancy, conservation easements, and private preserves seem to be the common slant on any “Natural Systems” talk. Ranchers and farmers think it’s something nice to watch on Animal Planet or the Discovery Channel but when it’s time to get the hands dirty all know there is “the actual and practical way to do things”!!

Or is there another way? Can nature’s efficiency actually be more efficient than ones man strives for today in our made economic models? Can we actually have a system that can put more money in the bank, and at the same time be more respectful to animals in our care and put agriculture in balance with the environment we live in?

Yes, I believe we can and it is one more harmonious and less exploitive than man’s inventions. “Natural Systems” doesn’t have to be limited to discussions amongst those wearing blazers. It can be discussed and practiced in the trenches, and lest it becomes a bit scary one needs to realize we already have the proper education to understand it all. One doesn’t need a degree in biology. Living everyday, interacting with each other, understanding why our kids need “upbringing” and how we fit into church groups---all these are examples of one’s species (humans/homo sapiens) “Natural Systems”. We need no college degree to explain how we live.

What we also need to understand is that what makes us tick is the same for animals such as bison. Natural Systems are universal. Once we get the notion of superiority out of our minds we can start learning how to more efficiently care for animals in our care.

With people we understand “getting along” is just as important as putting food and water into our stomach. Somehow we never understood wild and domestic animals needed to get along socially with their own kind. We have always used food and shelter for animals under our care to control them. We even sang songs to cattle on drives to “settle them down”. In short, we substituted their social, psychological, and physical needs with our artificial inputs of food, habitat, and labor.

All this, of course, is very expensive and unnecessary. I would compare our inputs required for domestic animals to the cost of housing our prisoners – neither needed if there wasn’t such a breakdown of social order.

With bison we have an animal genetically unaltered. Thus we have the ability to give this animal the go ahead to be himself... if we know how to let him. We can let this animal show his spirit and still provide us with everything we need. We need to let him live his life in order for us to appreciate their efficiency and durability.

This means allowing them a social and family order ...one probably more developed than ours. To take this away means we, as bison producers, are strapped with expensive inputs.

I realize most of you in attendance don't want to, or can, spend the 12-15 yrs. needed to obtain the efficient social ordered herds needed to take full advantage of this structure. One would have to have the commitment and investment the same as what it takes a beef producer to establish a reputable pure bred beef herd. With today's speculative bison market there aren't too many that want to think that far ahead. We do have options, though. For one a producer can utilize some of the animals from existing social order herds to infuse some order and leadership into one's own dysfunctional herd. This is similar to start up companies recruiting professionals and CEO'S from established companies. Two, one can buy complete starter herds from bison producers already committed to social order herds to give order and guidance to their own herds. The realization that infrastructure in herds is just as important as ranch facility, land base and equipment infrastructure is the number one requirement for putting money in the bank...if one wants to look further than the quick returns...or losses...associated with exploitation of other producers and marketers as seen throughout the beef industry. I do hope all of us here today can see the benefits of ethical purity in raising an animal for more than the abuse of animals and others as required to "succeed" in today's agribusiness culture. I hope we can look to the culture of life is in these animals ...life that can be applied back to understanding our own lives.

Applying social herd knowledge to our herds

1) A New Home

- Live animal sales have typically meant either buying individual bison at auction or by private treaty. Various assemblages of year classes are sold or bought and then a "new herd" is formed. Another bison producer is "born" who may have any number of reasons for raising bison. This system fairly duplicates cattle prototype methodology and entails such things as fertility testing and an emphasis on hyping individual body characteristics. This way of "performance evaluation" is best seen at the National Bison Association's Gold Trophy sale during the National Stock Show in Denver. The grand champ brought \$101,000. I see nothing wrong in promoting these animals

...if we are content with tunnel vision needed for sales pitches that change every few years. If bison could talk, I think their reply to such shows would be: “It is nice to see humans having the compassion to promote a Special Olympics for all the disabled bison in this world.” They’d also probably add, “Real bison Olympics has more to do with team sports rather than individuals”.

Thus, when we, at Tall Grass Bison, ship family groups of bison to a new home, we think of team concept. It is a lot easier with existing family structure, but any bison producer can utilize his bison herd’s needs and roles in deciding what to sell as viable starter herds---and still maintain his own herds identity.

I include “roles” because all components of bison herds try to attain a division of purpose whether it’s breeding bulls, immature females, or cows. By incorporating role classifications in management one utilizes another tool in making decisions whether it’s for cow/calf herds or placement of animals in a feedlot.

I guess the best way to explain how this helps is to use the example of our recent placement of a “complete” family unit (90 head) sold to a producer from another state. Our logic was as follows:

- a) First order for us was dealing with “home”. It was high on our list of priorities. A new home meant a lot of stress would be imposed on these buffalo. This stress is why the bison manuals say to start herds with calves or yearlings. Our logic said stability and getting a herd off and running meant the whole infrastructure should be placed. What company starts with kids and then waits till they grow up before the company is functional? We reasoned our animals had sufficient roles and support systems within this group to minimize this usual high stress associated with transport and unfamiliar surroundings upon unloading. We didn’t “see” the normal bison producers across the board loss of weight and a low percentage of calf crop the following year happening because our animals had highly developed infrastructure.
- b) It still didn’t mean everything would be “hunky dory”. We had to research our own species movements...such as Oregon Trail migrations to see what worked for buffalo. We also needed to read as many historical buffalo movement accounts as possible to see if we could cross reference the psychological needs of either one.

We found out the roles for man and bison during migrations were the same. Mature males went in the first waves. Then the main cow-calf and human family contingent flanked by young males went next. Bringing up the rear were more mature males. We saw our herd transportation needs

the same as those of frontier pioneers and protectors, and women and dependents. The Oregon Trail migration needs paralleled known herd migration observations. Roles of males as protectors to keep wolves at bay and be the front-runner trip scouts for the cows and calves going in mass

Cows we saw as no different than the women of the Oregon Trail--- having a huge sense of responsibility and a realization that what lies ahead is the *unknown*. This, and the impact of our cows knowing they could *never never* find home again, meant stress would be highest for them. The kids or calves would find “home” because of the dependency on their parents, but the mothers never could. We also knew this is why Oregon Trail women tried to take part of home with them---a piano or nice parlor chair – a hope chest or at least a few niceties. Home, we realized, was such a universal need that we could not overlook it when moving buffalo to a new home. We had heard all the stories; weight loss, disease, cows heading out from new placements and traveling many miles trying to find home and very low pregnancy the year after transport.

We knew our family groups would fair well but the splitting of families in trailers meant 8 trailer loads in 2 days could cause problems. We knew evolutionary development dictated cows could be separated from calves for only the shortest time, if at all. The cows would not take them back after these separations. Wolves ingrained this abandonment characteristic in bison long before man came along. History showed herd survival meant cows could not go back for calves even after short stampedes. If cows could not be with their dependents during the trip, we realized the logical role assignment went to the grandmothers. They could take care of multiple dependents and “deliver” them to their mothers the next day. It worked.

To trailer a functioning herd also meant bulls had to be unloaded first. They were the “frontier men” and thus would not panic and run through pasture fences like cows and calves are prone to do. That is why all the bison management books say for new producers to start with calves and yearlings.

With protectors already in place, logic dictated those with the most responsibility – the cows – wouldn’t face such a formidable and strange new world. Again, it worked. The cow herd, upon release, ran around the bulls instead of around the fences trying to find a way out.

The women’s piano of the Oregon Trail meant substituting a familiar salt feeder from our farm. It was taken down the week before just like dirt from roll spots was shoveled up and spread out for new “roll

spots” to help the bulls and rest of the herd settle in. (If this sounds all a little too like it’s on the “fringe”, all I ask is for bison/cattle producers to ask themselves why their livestock don’t gain weight for 4-5 months after location to a new place.)

- Feed Lots

Stress in feedlots costs lots of money. Disease is higher and weight gains can be non-existent in the short term. Feeders counter this by buying bison younger, feeding longer, or putting yearlings out to pasture for a half-year or so at the new location before feed lotting them.. Money is tied up longer and profits drop.

In looking at bison structure and knowing how young bulls idolize old bulls I’d say a viable option for feed lotting would be to mix in a small percentage of very mature bulls (enough that delinquent youngsters won’t beat up and kill isolated bulls). Less nervousness, running around, and stability has to mean money in feeders’ pockets.

Same goes for feedlotting young females. Female feedlotting and its accompanying horror stories are common. Put in some old cows and things will be a lot mellower.

- New Homes for Dysfunctional Age Groupings

I would never start a new bison ranch with just calves or yearlings. To me it would be like sending kids to the Children’s Crusades. Everything that goes wrong becomes the norm without expensive inputs. But if placement of young seems to be the “only way”, I would at least send along some mothers with un-weaned dependents. The other youngsters will get some calm. I feel for the Mother Theresas, though. Why make them sacrifice their life dealing with overly dependent and delinquent youngsters who run all around destroying the environment?

2) Moving Buffalo

- Corrals

Corrals are expensive and so is the money lost because of injuries occurring in them. A lot of buffalo have been sent to the meat locker because of corral-caused injuries or broken necks. Some producers think this is just part of being in the bison business. To me it is no different than the stuff I hear from our packers and other horse corral operations personnel in Yellowstone when they say: “they (the horses) will work it out”. My reply is, why don’t we just put all these people in a small little room and let them work it out? “Working it out” whether trailering, corralling, or penning has to mean deficiencies in spaces, sorting, or movement direction (forcing).

- **Bison Psychology**

This is probably one of the most important elements in figuring out how to move buffalo. With an animal having such a high order of social behavior, personal space requirements have evolutionarily developed a thin line between the needs for close proximity within herds and the needs of allowing each bison its personal space. Anyone watching bison can see how the slightest change in position in one bison causes a reaction in the one next to it---and then the one next to it.

At Tall Grass Bison we depend on social and family order allowing more tolerances in space requirements. But we still can't minimize what poorly designed corrals do in forcing bison into panic modes. Too tight of spaces and "working it out" is the result. Space needs to be there whether bison use this space or not. Psychologically any extra space provides an escape available from a trapped-in area. They may never "utilize" this space, but it's there if needed.

Our alleys are 24 feet wide and the tub is 40 feet in diameter. With the help of some very capable buffalo handlers we loaded 40-some diverse age bison (including 6 and 7 year-old bulls) into 4 different sectioned trailers in 50 minutes. This time included sorting from one mass and moving them 150 yards into the loading sections. Not an injury occurred and there was no "sorting themselves out". They also weren't prior-patterned with known routes. They didn't know where a gate or pen would be encountered along their path to the trailer.

Did our corral areas have wasted space or did it simply provide a means for bison to keep control of their senses?

- **Security and Safety**

I will always remember the unanswered question the railroad men puzzled over after the first tracks were laid in Kansas. As recorded by Colonel Dodge, an idiosyncrasy of buffalo meant if buffalo were on one side of the tracks, they scarcely noted the train even though they grazed within yards of the moving train. But if they were on the "other" side, even a mile away, they'd panic and run into the side of the train. The masses stacked up alongside and derailed trains all the time. What was happening?

I saw this same "phenomenon" while on boundary patrol in Yellowstone. One shot and the elk ran back into the park. The elk don't read the park boundary signs, but the answer for their actions is simple to everyone. They knew where they came from meant going back to safety. Same for the buffalo. If they crossed the tracks prior to the trains' arrival, going back to safety was paramount even if it meant going through a train---and if they

were on a seasonal migration, whether it was north or south, repeated encounters meant it all happened on one side of the train. Those who hadn't passed over the tracks had no need to fear the train.

The process of corral and animal sorting and loading has to keep this need for security and safety number one in planners' minds. We spend all kinds of money building corrals, continually forcing an animal forward and around blind corners when we should be thinking of allowing them to come back to safety. Sorting animals is a lot easier when gates are simply opened and closed, letting animals out of where they came in on their own free volition.

When it gets down to the actual load-out or head-gate area, individual safety psychology logically says even at this late stage of handling let them go beyond first. Having a perceived escape right up to the final "no escape" allows bison control over their actions. The results are self-evident. No broken horns or nasal passages and no one sees bulls and cows with shaking legs ready to collapse and die.

The above concept is not original to Tall Grass Bison, however. Pig producers in Iowa design their facilities so animals run beyond the load-out area. They all know it is a lot easier to then bring them back and load them out. The concept is universal and even applies to humans---just look at how humans pack to their entry point during fires instead of going to a new exit.

Enough for now. The intent is not to give answers as much as it is allowed us, as bison producers, to give the respect for an animal that deserves solutions normally reserved for the "higher level" of human race development. When this occurs we will all need less guidance in animal husbandry or the *special* nuances of "scary, powerful, dangerous, unpredictable wild animals" supposedly living beyond the "*pale of all human superiority*".