

**Thad Box** 

## Trail Boss Principles

In March, 1882, Jim Flood's cow crew swam 3,200 Mexican cattle across the Rio Grande near Brownsville, Texas. Five months later they delivered their herd of 3,312 head to the Blackfoot Indian Agent in western Montana.

Their whole, true story is in Andy Adam's "Log of a Cowboy." The first-person narrative of the 1882 trail drive was required reading when I went to school. Some of the language is not politically correct for today's classrooms, but Adam's book is filled with simple common sense that is timeless. Take, for instance, Flood's instruction to greenhand cowboys on their first trail drive.

The Trail Boss said cattle should never know they were under restraint. They should not be driven, just keep something of interest in front of them—fresh forage, water, movement in the distance that peaks their curiosity. Point men should gently turn those that wander back toward the herd, and keep strays from entering. Cowhands at the rear keep any from turning back.

Occasionally it is necessary to stop cattle from milling or turn a stampede, but for the most part the task is simple. Make sure every step the cattle take is toward the destination—and let them get there because they want to go. The trick is to keep them content and constantly moving at their own pace, never aware they are driven.

Each hand was to pick 12 horses from the remuda. Flood urged each man to keep his horses healthy, rotate them, and let none go lame or become unridable. Train some horses for special chores like swimming a river. Not only would a good swimming horse keep its rider safe, but the success of the herd depended on special skills.

He told the cook to spare nothing for provisions because a well-fed crew was a happy one. He cautioned the hands to eat well, and have a dry bedroll so they could sleep comfortably when they had a chance. He did not downplay the rigors and hardships ahead. They all knew they would face flooded river crossings, long waterless stretches, and Indian raids. But if they got along as a team, stayed healthy, kept their mounts fresh, and thought first about the herd they would all—cattle and cowboys—arrive alive and on time.

The topic of this issue of *Rangelands* is "Improvements and Ranch Management." Jim Flood taught a whole curriculum in management in a few minutes: know your mission, have a plan, move steadily forward, keep equipment in working readiness, use specialists, stay healthy, work as a team, and care about the job. It was a business plan based on principles.

Those principles apply to almost anything. I've had occasion to interact with many different kinds of businesses. Almost all provided a good and needed product or service. Some violated basic principles. Most that failed lacked a strategic plan. Hard work going in the wrong direction leads to heartbreak.

We exist as land care professionals to promote sustainable rangelands. One of our guiding principles is to maintain basic ecological productivity—to keep options open for whatever use

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future generations want to make of the land. This argues that "improvements" and the ranch management plan be compatible with long-term stability rather than short-term need. Very different skills are involved in maintaining sustainable rangelands versus maximizing profit through a vegetation and soil mining operation.

Traditionally the ranch management plan has been a business plan to provide a living for the ranch family. It considered improvements to be structures or tools to improve efficiency in a livestock business: fences, water points, sheds, pens, chutes, the list goes on. It sometimes included manipulating vegetation types to grow plants more productive and palatable to domestic animals. Some range management plans, often those of public land agencies, were designed to rehabilitate deteriorated rangelands back to some historical base.

Times and range use has changed. The modern plan, or those for the future, must be geared to the land, not the product or use, if sustainability is our goal

Early range management developed a subcategory called range improvements. Jared Smith's "Experiments in Range Improvements" published by the US Department of Agriculture in 1898 was among the first professional papers. Smith advocated reseeding grasses, loosening the soil with harrows and plows, and cutting furrows to collect seeds and improve water penetration.

Some 35 years ago, as part of the process of revising Stoddart and Smith's classic range text, Art Smith and I evaluated all the range improvement work produced in the first threequarters of the 20th century. Most were how-to papers. Few were experiments based on principles.

Like the profession at that time, our book was geared primarily to managing rangeland for livestock production. We included the traditional range improvement practices in 2 chapters: Manipulating Range Vegetation and Range Improvements for Increasing Forage Production. We listed the physical "improvements" in an outline in a chapter on planning grazing use of the range. Such a book is now inadequate for sustainable rangelands with many different uses.

I taught a course called "Range Improvements" at least a dozen times in my career at 3 different universities on 2 continents. I never taught the same course twice. My concept of what was needed in such a course gradually changed as our profession changed.

When I started teaching in the 1960s, range improvement work was largely geared to rehabilitating overgrazed and abused lands. It was often driven by availability of military surplus machinery that allowed woody vegetation to be removed by crawler tractors pulling anchor chains, roller-choppers, and all sorts of Rube Goldberg devices to remove brush,

loosen the soil, make pits, and improve water penetration. About the only difference between it and the 19th century range improvement work was the kind of equipment used.

The first few courses I taught were mostly how-to courses, full of recipes but with few principles. As range scientists began doing better science, running controlled experiments, and developing principles, my courses shifted from vocational how-to-kill-bad-stuff guides to courses with more soil and ecological principles. The last few times I taught range improvements, my classes were essentially basic ecology courses.

As I wrestled with what I might say in an essay on improvements and ranch management to a 21st century audience, three words kept popping into my mind—stick to principles. But the principles for management and restoring ecological productivity come from different fields.

The principles for running a ranch are those of a successful firm. They come from management science and business. Strategies will be different depending on what kind of products or services the ranch wants to produce—livestock, recreation, native plant seed, etc. Goals will be different if the strategy is to have a sustainable operation versus one that extracts wealth in a short time and externalizes its effects on the land.

Improvement principles are those of an ecological system. They are rooted in biology, soil science, and physics. Strategies tend to optimize rather than maximize, encourage stability over long time periods. Goals need to prevent closing out future options.

Sustainability of rangelands, the reason we exist, depends on continuous development of scientific principles for basic land productivity. It has little to do with what will be produced from that rangeland. It depends on our continuing to do good science. But it also depends on wise managers putting the science to use.

Long ago, down on the banks of the Rio Grande, Jim Flood told a bunch of green kids: Don't borrow trouble worrying about rivers, stampedes, and gunfights. Know where you're going. Have a plan to get there. Hold a challenge out front. Keep your horses fit. Train some to swim. Wrap your bedroll in a slicker. Eat well. Stay healthy. Have fun. Care about your charge.

Trail herds are history. Trail Bosses exist mainly in folk-lore. We have reduced our Trail Boss logo to a tiny speck atop a new, stylized, 21st century SRM logo. Without bifocals, you're likely to miss it. But our profession will serve the land well if we adopt the principles Trail Boss Jim Flood used in his 19th century cattle drive.

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