

Conservation and Common Sense

RUSSEL WEEKS

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I've often wondered what I would be doing today if I hadn't swung into conservation-ranching 20 years ago. One thing sure, I wouldn't be raising cattle.

Looking back over the years, I figure I've had as many tough range problems to whip as most ranchers. One of the things I've learned along the way is that it takes more than home-spun, hand-me-down methods to make it in the highly competitive cattle business. I've found it helps to work out my problems with range technicians like Tom Turner of the Wells, Nevada office of the Soil Conservation Service. So instead of plodding along by dead reckoning, I use the conservation range plan that Tom and I worked out together. My long range goal is to step up calf production and my conservation plan is helping me do this.

Driving through Clover valley

in the Clover Soil Conservation District, things look pretty much as they did when I came here in 1916. Cattle look a little beefier and you see fewer dry cows. Two and three year old steers aren't around either. More calves come

in the spring now. Years back they came the year around and were all sizes.

My ranch produces nearly twice the weight of feeder cattle at sale time each year than 20 years ago. If it didn't, I would be out of business. I couldn't operate profitably with increased costs, labor and taxes building up my overhead.

Except for a few irrigated areas, Nevada is largely feeder cattle country. Our grandfathers



raised two- and three-year old steers, but our fathers had trouble selling that kind, so sold mostly yearlings. Now with cheap grain for feeders, calves bring five cents a pound more than yearlings. That's the reason I put my effort into raising cows and calves. Calves are sold around January 1 after they are weaned, de-horned, and started on a little concentrate. This operation works fine for me. With weaning and de-horning behind them, calves are not likely to be troubled with diseases and other difficulties usually encountered. Calves weigh around 450 pounds and they only cost me 15 cents a day for over a pound of gain. It would cost me more if I kept them longer. To increase my calf production I must hike the percentage of calves weaned, then increase their weaning or selling weight. This means more early calves, largely a management problem.

I have 90- to 95-percent weaning success and at maximum weights I can sell at premium prices. So my program is aimed at increasing numbers in my cow herd and this means increasing our total carrying capacity. Increasing my calf crop and carrying capacity through a well proven program of range management, fencing, re-seeding and water development has gone a long way to bring up my weaning percentage.

The extra feed and earlier growing season of crested wheat-grass gets cows in shape to breed sooner after calving. Fences make it much easier to keep cows with the bulls. Calves start coming around March 10 and three-fourths of my calves are branded before I turn out on pasture, usually right after the middle of April. I brand up calves dropped after I leave the home ranch, and pick cows for sale around the last of May when bulls are turned in with the cows. I usually take out around a carload of old cows, those that

don't raise good calves or have spots on their eyes. These are taken home to irrigated pasture with their calves. After about a month or six weeks calves are weaned, put on calf feed and the cows sold off grass. They pick up very fast and most go as top dry cows.

Much has been said about advantages of range seeding and fencing. I have planted over four sections to crested wheat and other grasses, made miles of fence, dug six wells and installed windmills and tanks. This work was expensive but paid off well. Increasing an outfit's carrying capacity calls for increasing forage production and making the most of what we have. Here are some of the reasons why most of the old places in Nevada valleys still look much as they did when our parents and grandparents ran them. Precipitation in most valleys averages below 9 inches per year, and nearly all of it comes in winter. Everything raised on ranches must be irrigated. Most ranches have their own creeks fed by melting snows. There are no sites suitable for reservoirs, so water must be used as snow melts. Some years high water comes early in May. Sometimes it is late after winds have burned the grass. In an ordinary year, by mid-May I can usually flood 1600 acres. By late June I am lucky to irrigate 160 acres if needed. Through August there is barely enough water to irrigate my garden and keep grass and trees wet around my yards and buildings so windbreaks may be kept alive and fire risk held to a minimum. Alfalfa and tame grasses do well. Still hay improvement practices must be confined to areas that are fairly well drained but can be kept moist through most of July. Most tame grasses cannot survive our hot dry summers without July moisture. We had wetter than average years from 1940 until 1955. Everyone was over-optimistic. I had around 200

acres of tame hay that were yielding well. Since 1955, we have had only one wet year, the rest drier than average, and about half of my 200 acres that were on high well drained sites were lost and there is little chance in sight of re-establishing them.

I have observed through the years that the safest, surest, and most practical way to increase production is to use our natural resources to the best advantage. Our greatest natural resource is the tough native sod found wherever irrigation waters have reached. Sedges, wiregrass, native bluegrass and wild ryes and wheat grasses that nature has selected through thousands of years for their ability to survive and thrive under our natural conditions occupy these areas. These grasses thrive best when flooded during high water, and as our soils are our only storage reservoirs, the better we fill them in May the longer they will retain enough moisture for grass growth. The tough sod and grass cover also retard evaporation and prevent hardening and cracking under saline conditions so common in lower valleys in this Great Basin area where there is no drainage to the ocean. Besides standing flooding and saline conditions, nature has also selected these sods on their ability to withstand drought. I have been through droughts of two and three years when not a drop of water reached our lower fields and everything looked completely bare and dead. Still after a good flooding fields have greened up in a week and feed was even better than after a series of wet years.

We have gone a long way in selecting and improving forage plants that yield more and have more feed value and palatability. But we haven't even come close to selecting any species that can survive and thrive under our prevailing conditions. How, then can carrying capacity be doubled

under said conditions? I did it by taking full advantage of the resources that nature favored us with. Probably the first and most important is our native sod. It can survive flooding and drought but not plowing or severe chiseling or renovation. Once this sod is broken it takes at least 20 years of flooding and protection from trampling to restore it. Soils are heavy and saline and lose their structure easily if the native cover is broken. Weeds come in and there are so many setbacks that it makes these meadows economically impractical to restore. These native grasses show very little response to fertilizer. I've found that the best way to improve these meadows is to give them better distribution of irrigation water by using wide, shallow, lateral ditches. I always start these from a point that is hard to irrigate and run them back to the source of supply. I make substantial dikes through the hollows and plane off the high places with my dozer so I can turn the water out on them. There are always plenty of holes and low places to dump the extra sods and dirt so the field will be left smoother. Greasewood and rabbitbrush die with the first irrigating and one will be surprised how fast these high places cover with sod when they are kept wet and the excess salts washed away. In many places one can grade a wide ditch on a ridge and use the sods to fill a nearby hollow, using high water as a level. Anything a rancher does to keep water on high places and distribute it evenly so all places will stay wet longer helps. Hay yields from these native meadows run from one-half to three-quarters of a ton if they are smoothed up enough to profitably hay them. This hay is low in protein and high in fibre but it works out well when fed with a protein supplement or with high protein hay from improved fields. Stacked loose it keeps its value in storage and is very wel-

come during dry years when hay goes up to \$35 or \$40 per ton. An occasional haying holds wild flags and briars to a minimum. Another thing, I always avoid mowing patches of willows as stock do much better with some windbreak and browse and these afford both.

The value of the sods doesn't end with forage and hay value. To get a good weaning weight I must calve in March. While winter snows seldom lay on these lower fields, March is noted for its raw winds and blustery storms. Many a young calf that would freeze down and die if he were dropped on a muddy stubble or alfalfa field or in a greasewood patch is saved by the warmth that this cover of old grass and roots provides. They look so much brighter and they are a lot healthier. It seems all of our scours and pneumonia come around muddy lots and corrals. I believe that year after year, a good sod cover and few willows can be credited with a 10-percent saving in my calf crop. Besides saving calves, good sod bed grounds save a lot of flesh on cows that otherwise would be burnt up for thermal energy if they had to bed on mud or ice.

Land reseeded to alfalfa and tame grasses and clovers must be treated so everything possible can be raised on it. Two 80-pound bags of ammonium nitrate (33 percent) will raise the yield a ton. Two bags of 20-20-0 will do about the same for alfalfa and clover mixtures. Most of our soils have plenty of potash and trace minerals. Besides raising the yields, fertilizers increase the quality, palatability and protein content, and you can make a crop with less water as it grows faster and starts earlier in the season. To get the most from this high quality hay I feed it as a supplement when cows are on dry meadow pasture or on poorer quality hay from native meadows. Cows crave it and pick up all the stems and leaves as the

old meadows always make a clean feed ground.

I feed my calves in mangers and they waste quite a bit of alfalfa by sorting out the fine stuff and leaving the stems. In wet weather they waste even more; occasionally, one will bloat. I feed my calves a concentrate consisting of 100 pounds bran, 100 pounds rolled barley, and 65 pounds cottonseed flake (41 percent) at the rate of 2 pounds per day, and find they do just as well on early cut grass, and it takes much less.

If I don't have high quality hay to feed at least every other day I give my cows around 1¼ pounds of 41-percent cottonseed pellets daily. This protein keeps cows thrifty and they will hold their own on grass. Hay thus saved can be used during a hard winter. I also use vitamins A and D concentrate with my salt and phosphate mixture. The cost of the vitamin concentrate and the soybean meal to mix it runs around \$1.25 per head for the last 100 days from January 1 to April 15 when cattle need it most.

It is true that costs are rising on all these things—seed, fence, fertilizer, plowing, ditching, and supplements. When one compares these costs with the amount he receives with doubled production, they are small. There are risks involved. Dry years, late cold springs, disease, and things that some would call bad luck. In ranching I feel we should write this type of bad luck off as something that happens to a fellow when he has no preparation to meet an emergency or an opportunity.

The Clover Soil Conservation District, Soil Conservation Service, Experiment Stations, and many fertilizer and biological companies have given us a start. By using common sense and our natural resources, plus bending all our efforts to get increased and more efficient production, we will be able to keep our agricultural industry abreast of others in our nation.