



Shop informed for fencing materials

By Chuck Huseman
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If one set out to develop a perfect fence for cattle, there would be a number of things that would be considered and included in the design.

It should be long-lived, to avoid the expense and work of building new fence year after year. It should be durable, so as to stand the wear and tear cattle exert. It should be easy to maintain, because modern day cattlemen can't spend their whole day "riding the fence lines," like they do in the movies. It should also be inexpensive to build for obvious reasons.

Well, this fence has already been developed, it's called high-tensile fence.

To some it may seem odd to talk about high-tensile fence as a new concept in fencing. After all, it's been in use for many years in Australia and New Zealand. It's even becoming fairly common in this country. However, high-tensile fence still is a new product for most U.S. livestock owners, and it's too good a concept not to be used in more animal control situations.

High-tensile fence is simply a fence constructed of a number of smooth high-tensile strength wires. The big difference and advantage come from the properties of this wire. It is type 3 galvanized. As described in my last article, this means a thicker coating of zinc and a much longer useful life. The wire also is manufactured with a high carbon content, so it's very strong. The breaking point is so high that it can be installed and kept tight on posts up to 100 feet apart. Try that with ordinary barbed wire.

The tensile strength of the wire gives it extraordinary "memory." In other words, the wire won't sag, it will stretch and return to normal. The stories of this fence bouncing back from trucks, big round bales and trees are actually true!

Another major component in this fence is the "in-line strainer." This is a tensioning device that stays right on each wire for the life of the fence. Should a wire ever become loose, one needs only to crank the strainer a few clicks and the whole stretch of fence is just like new.

What should one look for after deciding that high-tensile fence will work in his/her situation? Here it gets a little more complicated, but not much.

There are many different brands of high-tensile wire, each claim to be superior to the other. Terms like breaking point, psi, and gauge are thrown around by some dealer-installers that scarcely understand the terms themselves. The far most important thing to be sure of in a wire is that it is type 3 galvanized. The high carbon con-

tent of high tensile wire allows it to rust faster than softer wire without a thick zinc coating, so galvanizing is very important.

The most common gauge in use is 12.5 gauge. Ten and 8 gauge high-tensile wire is available but the additional cost and weight are not justified for livestock fencing.

Now the most confusing aspect; actual tensile strength. U.S. Steel manufactured a product that was popular and was advertised as having a strength of 200,000 psi (it is no longer manufactured). This has become the standard, for some reason, by which other wires are measured. In real terms a 200,000 psi (pounds per square inch) wire will break at about 1,400 pounds of pull. There are high-tensile wires on the market with breaking points from 2,000 pounds down to 900 pounds.

It would seem at first glance that the stronger the better and therefore one should just look for the highest breaking strength wire and make that the choice. Not so. The higher the breaking strength the more brittle the wire and the harder the wire is to work with. In a fence situation (compared to a lab situation) a wire with a 14 or 15 hundred pound breaking point is hard to distinguish from the very hard 2,000 pound wire. The choice is still up to the owner of the proposed fence, but keep in mind that a seller of wire will always have "the best on the market" to offer. It may be worth a little more research.

Another area of choice for the prospective fence builder is which strainer to use. There are a number of good types and brands of strainers on the market. The most common is the "Hayes style" strainer. This device comes from the manufacturer in three parts and requires a special handle to take up slack in a line. A far superior design is a "Donald's" strainer that is a one piece unit and can be tensioned with a wrench or pliers. Again, it is very important that the strainers be protected from rust in one way or another.

One must also consider, when installing a "high-tension" fence, that the end and corner braces have to be installed in such a way as to stand up to the tremendous pull that can be developed with this type of fence. It would be best to refer to university test data on different methods of bracing fence lines for given areas and soil types. Then use the method that has the highest "load at failure" rating for those conditions. The end or corner of a high-tensile fence will have about 300 pounds of pull on it per wire used in the fence. This load can increase dramatically when 25 head of cows all decide to reach under or over it at once. So brace the fence accordingly.

Correctly installed, a high-tensile fence can be one

of the most economical and effective ways to contain livestock. In my next article, I will examine the different types of posts that are available for use in all types of fences.

Controlled grazing: economics vs. cosmetics

By Willy Kilmer
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Looking at these two words, it occurred to me that there are only two letters difference between them.

What a vast difference in meaning those two letters make. It suddenly struck me these two letters express the essence of controlled rotational grazing.

Writing in a purebred journal I'm fully aware that a great deal of attention is given to cosmetics, particularly to the livestock. So be it. Many of us need concern ourselves with the economics of producing beef at as low cost as possible, however, thus this discussion.

Although there are many plusses to a controlled grazing system, there is at least one minus and that is the cosmetics. As spring progresses into summer and summer to fall a small irritation emerges. The paddocks are not as pleasing to the eye as ones that are being hayed or those that are conventionally grazed and that have been fertilized, sprayed and manicured.

Intense grazing pressure for short periods is hard on weeds and brush, but there are some survivors. A "windshield survey" of these areas would definitely lean one's thinking toward conventional ways.

The really unpalatable and tough weeds and brush become highly visible. The urge "to do something about them" becomes almost uncontrollable. Certainly there are mechanical and chemical methods available which can improve the cosmetics of the paddocks immensely. Brush hogging and spraying begin to look extremely attractive.

This brings us then to our two opening words: economics vs. cosmetics. What are we maintaining the meadows for? If it's to impress our neighbors, passers by on the highway or our banker, as this author has recently discovered as important, we should rush right in there and get things taken care of. If we at some point intend to turn a profit from the venture, we might sit back and calculate the consequences of our actions rather closely. It is difficult to put dollars and "sense" figures to this, but an idea might help.

Relate the cost to what it is you're selling. If your product is multi-thousand dollar breeding bulls there is no doubt you can and should value cosmetics rather highly. The cow-calf producer looking at perhaps a \$300 sale has to view cosmetics quite differently. I have had some rather interesting discussions when we tried to view the cost in that manner.

Thus I have no great objection to brush hogging other than the cost. This is one operation whose real cost is a lot higher than we sometimes think. We know that the tractor uses so much fuel per hour and we can relate that to a per acre cost fairly easily. We generally feel that our time isn't worth much anyway so we might as well be mowing weeds. So far no big deal.

Seems to me I've heard of power take off shafts being twisted off while brush hogging. There goes a \$300 calf. Now and then a tractor tire is ruined while thus em-

ployed. Another calf gone. The gear box just broke down. Another calf sacrificed.

I'm not saying don't. I'm asking that we look at the cost vs. the benefits. Are we looking at cosmetics or at economics?

As for the chemical approach, a great deal more caution need be given. Again the apparent cost seems reasonable. Per acre costs are rather low.

The *real* cost could be that the same chemicals that control our brush and weeds will also kill our legumes. The cost then of purchased nitrogen and the lowered quality of the available forage may be a lot higher than first thought. Again, relating this to the product we are selling may give a better perspective of the economics.

There is another approach that can be used effectively. When observing paddocks, simply look past the weeds. When a lush understory of a wide variety of grasses and legumes is evident, the cosmetics of the field improves dramatically. It is necessary to leave the comfort of the pickup and do a little walking in order for this method to work. It may become necessary to look around to make sure one is not being observed and get down on all fours to see what is growing down there.

The cosmetics of that are not too good, come to think of it. If this intimate inspection reveals a thick growth of desirable forage, the economics are on track.

Still using our \$300 calf, let's look at an alternative to either mechanical or chemical management of our pastures. A mile of single strand, high-tensile wire, electrified, New Zealand-style fence can be purchased for the price of this calf. Once installed it will be in service for many, many years with little cost or maintenance. This is all that is needed to have the kind of livestock control necessary for an intense rotational grazing system.

I'll make the bold statement that this is the most profound livestock production tool ever invented. When compared to the cost and benefits of alternatives this simple tool can completely change our ideas about the production of beef. If the losses that have occurred in the last few years are any indication, we do need some changes.

Economics vs. cosmetics. Each of us need decide why we are in the beef business.

350-page book describes grazing

INTENSIVE GRAZING MANAGEMENT: Forage, Animals, Men and Profits not only provides information on every aspect of managing a livestock operation, but does so in everyday language. Authors Burt Smith, Pingsun Leung, and George Love wrote **INTENSIVE GRAZING MANAGEMENT** primarily to explain intensive grazing management (also known as controlled grazing, short duration grazing, cell grazing) which is gaining rapid acceptance in the United States.

INTENSIVE GRAZING MANAGEMENT features more than 130 photographs, drawings and tables to illustrate various aspects of intensive grazing management. A 102-word glossary, conveniently located at the front of the book, defines the new terms this book is sure to add to the language of the livestock industry. Each chapter is introduced with J.R. Williams ranch cartoons.

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