Electric Fencing for Sheep

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The use of electric fencing for sheep is relatively new in the United States. Several other countries have used electric fencing with great success for several decades now. Electric fencing is more economical than standard barbed wire or hog wire fencing. Electric fencing also allows for temporary fencing to subdivide pastures, which can increase the stocking rate and forage utilization and decrease parasite problems through rotational grazing.

Why has electric fencing not caught on in the United States? The main reason is the past failures producers have experienced due to utilizing poor quality fence chargers and not understanding the basics of electric fencing. The basic principles of fence construction, grounding, and current flow must be understood to ensure correct fence design with minimal maintenance and maximum current flow.

Fence Chargers and Grounding

The major mistake that is made in electric fencing is the use of poor quality, "cheaper" fence chargers and the improper grounding of the fence. The fence charger is the most important purchase in construction of the electric fence. Electric fence chargers have become much more sophisticated than the older type low powered fence energizers. Electric fence for sheep can be maintained even in remote areas with the new solar powered chargers.

Voltage must be maintained at all times if an electric fence is to be effective. The new high voltage energizers produce a very short, .003 second, high-energy pulse. The high-energy pulse charges even a long length of heavily weeded fence with a shock that livestock respect. The short pulse limits the overall energy, so posts are not burned and the wires are safe, though painful to touch. The short pulse also removes the chances of fire when grass contacts the wire.

The most important component of electric fence construction is the proper grounding or earthing of the system. With a poor ground, the electric pulse could not complete its circuit, and the fence would be completely ineffective. Improper grounding is the number one reason for electric fence failure and the main reason for producer's in the United States reluctance to use electric fencing. More than 80 percent of the electric fence systems in the U.S. are inadequately grounded. Three or four ground rods, six feel long, should be used for proper grounding. These rods should be placed in parallel approximately six feet apart. Most fences are constructed with only one ground rod (this is adequate only when the ground is extremely wet) and will not be sufficient to ensure proper current flow.

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Permanent Electric Fencing

Permanent electric fencing with five to eight properly spaced strands is excellent for holding sheep. This fencing can be constructed with high-tensile wire and various types of creosote pressure treated posts or fiberglass posts for about one-half of the material and labor cost of an equivalent woven wire fence.

Experience has shown that a seven or eight wire fence that is approximately 48 inches high is ideal for sheep and cattle. This fence will not only keep sheep in, but will also work well for keeping predators out. Spacing will depend on the number of wires used. A good fence design for a seven-wire fence would begin with the bottom wire charged 6 inches above the ground. The next two wires would be spaced at 5 inch intervals and would be a ground wire, followed by a charged wire. The next wire would be a ground wire spaced 6 inches up, followed by a charged wire and a ground wire at 8 inch intervals. The top wire would then be 10 inches up and would be a charged wire. This fence would be 48 inches high and should do a good job of livestock control.

The wires used in these fences should be smooth 12 $^1/_2$ gauge or 14 gauge wires. If building a permanent fence, the 12 $^1/_2$ gauge would be a much better choice. The 12 $^1/_2$ gauge wire is much stronger and will carry the necessary voltage better than the lighter 14 gauge wire. In any case, when this fence is built from smooth wires it is important to put a "wire strainer" on each wire to take up the slack and keep the wires tight. The principal idea of the wire is to give an electrical shock to the livestock, and the actual strength of the wire does not prevent animals from going through. Consequently, all that is needed is to space the wires properly and keep them tight. This makes it possible on level ground to put fence posts 40 to 50 feet apart. By doing this and using high-tensile smooth wire, it is possible to build a fence for much less than the cost of a woven wire fence, and the fence is a much better deterrent to the movement of dogs and coyotes than a woven wire fence.

Temporary Electric Fencing

Recent interest in pasture management involving intensive or controlled grazing systems has created a need for semi—permanent or temporary sub-division fence systems. These allow forage growth, quick grazing, internal parasite reduction, and regrowth of forage for future grazing.

There are many different types of temporary fencing, which includes lightweight, high-tensile smooth wire, polywire, polytape, or flexible netting. The lightweight ,high-tensile wire would be best utilized when the fence is semi-permanent, such as around a wheat field for the winter and spring. This wire is not well utilized when constant moving is necessary. The polywire and polytape is best utilized in a rotational or controlled grazing environment when the fence must be moved more often.

A two or three wire temporary fence around a wheat pasture or for controlled grazing in any kind of pasture will normally be sufficient. Most producers using temporary fencing feel that all wires should be charged and no ground wires are necessary. If a two wire system is used the bottom wire should be 10 to 12 inches above the ground with the second wire 10 to 12 inches above the bottom wire. If a three wire system is used, the three wires spaced at 10 inch intervals works very well.

The new polywire or polytape system has made temporary fencing for controlled and intensive grazing a very feasible alternative. With the use of portable reels and quick setup features, the temporary fences can be moved quickly and are also very efficient in keeping livestock in.

Rejuvenating Existing Fences

Old fences, which have deteriorated to the extent that they need complete replacement, can be rejuvenated to last for many more years by attaching offset brackets and an electrified wire on one or both sides of the old fence. All single offset wires should be attached at two thirds the height of the animals to be controlled. The old fence can be used as the "ground" wire and will work well to complete the circuit necessary for good sheep control. Charging barbed wire is not a good practice for two reasons: 1) livestock caught in charged barbed wire can literally be shocked to death; 2) barbed wire is not as conductive as the smooth-high-tensile wire and will not carry an adequate current for sheep.

Training Sheep to Electric Fences

It is necessary that sheep become adjusted to and learn to respect electric fences. All animals need time and space to quietly discover that electrified fences are "hot." If they can be first exposed shortly after they are shorn, they will have less wool for insulation.

Sheep should be turned into an area that is controlled by electric fence and allowed to discover the fence in their own time. Sheep that are crowded near electric fences frequently get spooked through the fence. Rambouillet ewes brought off the range of southwest Texas are easily spooked and will require more time to get adjusted to the electric fencing. The minimum time required is 12 hours and most animals will be fully trained in 48 hours. It is also true that a multi-wire fence will teach sheep to respect electric fencing much quicker than a one or two wire fence.

The high levels of forage production in Oklahoma make sheep production a very viable enterprise. Problems associated with sheep production in Oklahoma include predation and internal parasite problems. With the correct use of electric fencing those problem can be kept to a minimum. Electric fencing is another alternative, which may prove a valuable asset to your operation. For more information on electric fencing, contact the local county Extension office or the state sheep specialists.

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