

# Electric Fence Effective on Range

## More Efficient Utilization of Grasses on the Jornada Experimental Range Made Possible by Use of One-Wire Electric Fence—Can Be Constructed Quickly and Cheaply

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Preliminary results in the range use of one-wire electric fences on the Jornada Experimental Range of the Southwestern Forest and Range Experiment Station\* indicate that such fences have possibilities as a cheap and effective means of controlling livestock on the range.

In August, 1938, 3½ miles of one-wire fence was constructed around one of the large tobosa flats on the Jornada for the purpose of holding cattle on the tobosa summer feed and at the same time protecting the surrounding grama grass

was no more passing back and forth under or even approaching the charged wire. A trail in the moist sand inside showed that the animals never came closer than four feet from the wire and salt placed near the line was approached with extreme caution and from one side only.

As a trial the yearlings were kept in the enclosure about three weeks, during which time none escaped. The wire was then taken down and the yearlings had to be driven out of the enclosure. It is believed that none would have volun-

Other uses suggested by the ease of construction or moving these fences are: segregation of poison-plant areas; holding non-breeding stock such as yearling heifers separate, and holding breeding cows and bulls together in an effort to increase the calf crop. The breeding period usually coincides with the summer season when it is desired to confine cattle closely as possible on summer feed areas.

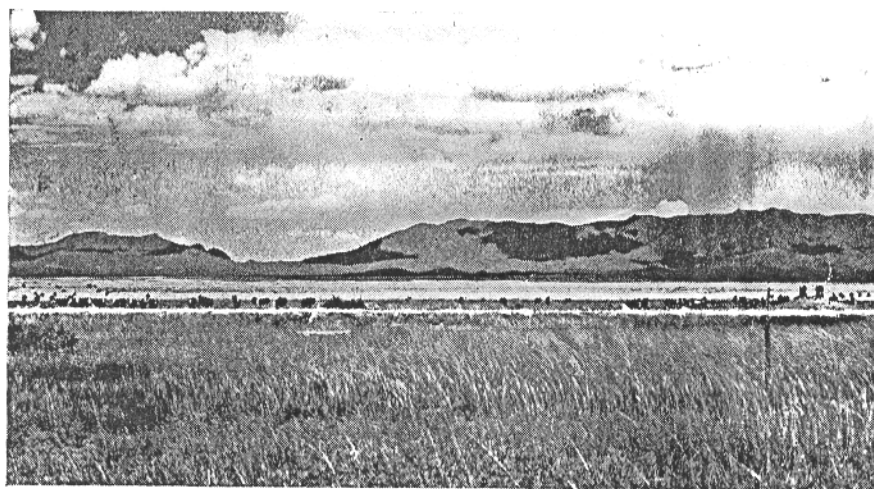
The manufacturers of the electrical units or controllers all recommend that cattle be trained by bringing them into contact with the charged wire in a corral before placing them in a range enclosure. On most ranches with large numbers of cattle to be handled this is not possible. The next best thing is to have the enclosure all ready for use and turn the stock in after the first light shower or rain. The soil remaining moist for a few days will thus permit a much better ground contact by the animal and will intensify the electric shock to the extent that after one contact the wire will be studiously avoided thereafter.

The cost of these fences is the most attractive feature of all. The 3½ miles of fence constructed on the Jornada cost only \$33.70 per mile, which included supervision, labor, wire, posts, insulators and the electrical unit with its battery. This is contrasted with the cost of a standard four-wire fence which sometimes runs as high as \$200 per mile. The maintenance cost is very low, an ordinary six-volt auto storage battery lasting four or five months before it is necessary to re-charge. The wire must be well insulated and patrolled frequently, especially when first used, to repair any short circuits or grounds. The better control units have a device by which grounds can be detected as soon as they occur.

Electric fences should be used with caution to avoid possible harm to children. It is unsafe to use home-made affairs, and in no case should electric current be used direct from power or electric light lines without the use of a control device made by some reputable concern.

\*The Southwestern Forest and Range Experiment Station is maintained at Tucson, Ariz., by the Forest Service, U. S. Department of Agriculture, in cooperation with the University of Arizona, and covers Arizona, New Mexico and the western third of Texas. Arthur Upson is director. \*\*A branch of the Southwestern Forest and Range Experiment Station located about 23 miles north of Las Cruces, N. M.

### Puzzle: Find the Fence—



Heifer yearlings being held on summer range by use of one-wire electric fence on the Jornada Experimental Range. Note wire in immediate foreground with white cloth attached.—Photograph courtesy Southwestern Forest and Range Experiment Station.

from heavy use during the growing season. Following the heavy rains in July, the tobosa grass was green and succulent and when the fence was built, the soil was very damp.

However, before the electrical unit ordered arrived, the soil had dried out thoroughly and the first results on this dry soil were disappointing. About 140 yearling heifers were placed inside the enclosure and at first they passed back and forth under the wire freely. After about three days a light shower fell wetting the ground to a depth of about one-half inch, and following this there

tarly passed between any of the standing posts even after the wire had been let down, at least not for some time afterwards.

The chief value of such an enclosure on ranges such as the Jornada seems to be that of holding cattle on summer feed, especially where such feed areas are intermingled with and sometimes entirely surrounded by range supporting grama grass which must be reserved for winter use. For this purpose these one-wire fences can be constructed quickly and cheaply and can be easily removed when no longer needed.

### Witwer Herefords Go South

Stow L. Witwer of H. E. Witwer & Sons, Greeley, Colo., Hereford breeders, writes concerning the recent sale to E. E. Thurman, Long Island, N. Y., of foundation stock for his farm at Cheraw, S. C. In the shipment were 10 head of Home Builder and Benefactor heifers and three bull calves, Mr. Thurman's first registered Herefords. E. F. Bedell is ranch manager for Mr. Thurman and he will get The Hereford Journal with the best wishes of Mr. Witwer.

### Howard M. Shirkey Resigns

Howard M. Shirkey, of the Hereford breeding firm of Lavelock & Shirkey, Richmond, Mo., has resigned as chairman of the Missouri State Agricultural Conservation Committee, according to announcement made by Claude R. Wickard, director of the North Central Region AAA.

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