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THE ELECTRIC FENCE

Probably no new development in farm electric equipment has attracted as much attention or created as much interest as has the introduction of the electric fence. This appliance was developed by a manufacturer in the western livestock region and has apparently found wide acceptance on many western stock and dairy farms.

The electric fence consists of a small metal box containing current and voltage transformers, and an interrupter or circuit breaker which breaks the electrical circuit at regular intervals. Safety features built into the unit vary with different manufacturers. Two wires come from the unit, one of which is grounded and the other is connected to the fence. The fence itself consists of one or more strands of barbed wire which is mounted on stakes or posts with insulators. The fencer usually has two small electric bulbs on it, one of which is usually white and the other colored. The white bulb indicates when a charge of electricity is on the fence to show that the unit is working. The colored bulb only lights when the fence has become "grounded" and is a warning that the fence should be patrolled.

Electric fencing units are now being made to operate on regular 110 volt alternating current, 32 volt direct current for farm light plants or on six volt storage batteries where neither of the other voltages are available. One of the fencing units will operate four to 15 miles of barbed wire fence or its equivalent. Where the animals are of a fairly uniform size, only one wire is necessary. When the animals vary in height, two wires will be necessary in order to effectively hold all the animals. No return wire to the unit is necessary since it is so designed that the animal completes the circuit between the wire and the ground, the unit itself being grounded.

There are several precautions that should be emphasized in the installation and operation of the electric fence, in addition to the instructions furnished by the manufacturer which should be followed closely. The barbed wire should be mounted on the posts at the correct height for the animals to be fenced. This should be about three feet for cows and in the same proportional height for other animals. Only barbed wire should be used because the animal's hair serves as an insulator and the fence will not be effective unless the barbs are there to penetrate through the hairs to the skin and make contact.

The electric fence will be new to the animals and they should be made acquainted with it the first day it is used. The best way to do this is to attract them to the fence by telling them with a small amount of grain placed under and on the opposite side of the fence. They will then "accidentally" touch the fence and receive the shock, which will sufficiently introduce them to it. When this is done, the animals will respect the innocent looking barbed wire and will not accidentally run into it again.

The fencing unit should be installed at a point where it can be observed often to make sure that it is operating. Care should be taken in building the fence to see that the wire is well insulated from the posts. If directions are carefully followed, these fences operate satisfactorily at a cost of less than ten cents per month and the total cost of the fence is only a small percent of the cost of a woven wire fence. This, of course, is based on the assumption that the fencing unit being used is one that has proven safe and is built by a reputable manufacturer.

There is still some question as to the safety of the electric fence in some areas. The safety commissions in some states have approved the device and it is reported that there were over 5,000 installations in one western state last year. There are dozens of manufacturers building the units, names of whom will be furnished on request.

I would like to take this opportunity to warn against trying to rig up homemade electric fencing units. A large percent of the fatalities that have resulted from electric fences have occurred where homemade rigs are used. The commercial units only cost from \$20 to \$35 and are scientifically designed to do a definite job. Recent investigations show that the fencing unit should operate at a maximum of 50- to 60 volts and 30- to 40 milli-amperes if it is to be considered safe. In addition to this, proper safety devices are built into most of the units to prevent continuous grounding. By all means, if you want an electric fence, be sure your fencing unit is one made by a proven and reliable manufacturer.