

A MODIFIED ELECTRIC FENCE FOR NURSERY PROTECTION

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The cost of keeping predators out of small nurseries, such as those maintained at research installations, is usually disproportionately high. Shotgun bird patrols, firecrackers, and carbine cannons either are costly, require maintenance, or offer only limited protection. Rodents usually feed on seeds and seedlings at night when there is no protection. Yet for the past 3 years, we have been able to protect the seeds and seedlings in a 60-by 130-foot experimental nursery for only pennies a day.

A modified electric fence provides this protection (fig. 1). Two "hot lines" are strung completely around the nursery on insulators. One line is approximately an inch above the ground, and the other is atop poles 10 feet tall. A grounded line, also affixed to the insulators atop the poles, runs parallel to the hot line. These two lines are $1/2$ to

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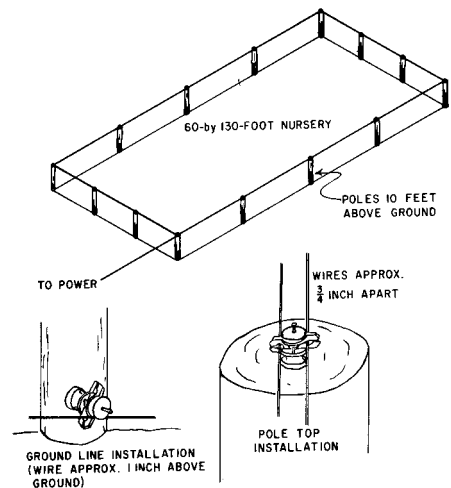


Figure 1.—This electric fence protects small nurseries against predators. Closeups show how the two hot lines (one atop pole and the other 1 inch above ground) and the grounded line (atop the pole) are attached to the insulators.

1 inch apart. All lines are stretched taut to prevent short circuiting. A commercial 110-volt power source supplies electricity through a stock control fence charger.² The equipment and supplies cost less than \$60, exclusive of fenceposts, poles, and labor.

Rodents, toads, and an occasional snake are electrocuted by the "hot" wire strung an inch above the soil. Carcasses do not cause lasting short circuits. Larger snakes, particularly rattlesnakes, no longer find the nursery an attractive source of vermin.

² Manufactured by Electro-Line Products Corp.

Birds surveying the nursery for danger from the high-wire promotory are electrocuted. Since installation, only one bird was killed each year; thereafter, birds avoided the nursery. By comparison, dozens of birds are often killed or maimed annually by shotgun patrols.

The electric fence is versatile. Proper placement of other hot lines will keep meandering livestock, deer, and dogs out of the nursery. In remote areas, batteries can substitute as a power source for protection of nurseries, experimental plots, and other small installations. Larger nurseries may find the high wire to be an effective, humane, and inexpensive means of preventing seed losses to birds.