December 1983

# Fencing For Deer Control

William R. Bonwell
*U.S. Fish and Wildlife Service, Dixon Springs Agricultural Center, Simpson, IL*

# Fencing For Deer Control

William R. Bonwell, U.S. Fish and Wildlife Service, Dixon Springs Agricultural Center, Simpson, IL 629$5

ABSTRACT: Deer (odocoileus virginianus) depredations are a serious problem for many landowners and few landowners plan for these potential depredations. Fencing to restrict deer movements has become the most economical means of control. Several fence designs are available but the new electrified high tensile wire fences hold the most promise for deer control.

## INTRODUCTION

Deer have become an annoying, if not a serious problem for landowners and wildlife managers. Landowners are complaining of significant crop losses whether real or imagined. Wildlife depredation reduction, which growers must conduct annually to insure a profitable crop, should become an integral part of the total pest control program as is insect and weed control.

Few landowners consider the potential wildlife depredations when planning structures, crop rotations, and livestock herds. It is not until depredations have caused significant damage that the seriousness of the problem is realized. Control itrol then becomes a necessary expenditure.

## FENCING

Properly constructed and maintained fencing has high potential for preventing deer depredations. Deer-proof fences must produce a physical and psychological barrier to deer movements. This translates into a relatively short fence that cannot be crawled through or under and a barrier that is precieved as too difficult or dangerous to leap over.

## FENCING - AT WHAT PRICE?

Fences vary in cost and effectiveness. Producers must determine what price they will pay for 50, 75, or 100 protection from depredations. Conventional livestock fencing will not exclude deer, hence its cost is high for the benefits it provides.

It is important to compare the cost of "deer fences" and conventional fences with the estimated crop loss, Will the crop tolerate some damage without any significant loss? Will the increased protection offset the cost of the deer fence?

## TYPES OF DEER FENCES

Deer fences can be temporary or permanent depending on the need for protection. Avery simple design reported by Aucott (1981) is a 10-foot (3 m) pole tripod with 3 electrified wires attached to the tripod leg to produce anoverhanging fence. The overhang encourages the deer to attempt to crawl through
or under while the electric charge conditions the deer to the fence. This fence

is easy to install and remove.

The addition of a single outrigger wire 30 inches (76 em) above the ground and 24 inches (61 em) from any fence can improve deer repelling qualities. This minimum protection may be all that is desired around a garden.

Anonymous (1981) reported that Dr. John L. George, Pennsylvania State University, was directing a deer fencing project using a 58 inch (147 em) high 5-strand electric fence and a modified New Hampshire figure four fence. The figure four fence consists of 2 fence lines 38 inches (97 em) apart. The outside fence is 2 strands of electrified high tensile wire 15 and 43 inches (38 and 109 em) above ground level and the inner fence has 1 wire 30 inches (76 em) above ground level.

Grahl (1979) reported excellent results were obtained with the modified Vermont style fence in South California. This is a 60 inch (152 em) fence with 3 hot and 3 grounded wires, and an outrigger wire 30 inches (76.em) above ground level and 24 inches (61 em) from the main fence.

Anonymous (1983) reported that an experimental fence design installed at the Kanawha Airport, Charleston, West Virginia, seems to be a success. This fence consists of a 5-strand 60 inch (152 em) high fence of high tensile wire. Three alternating wires were electrified with a New Zealand fence charger. It was necessary to clear an 8 foot (2.4 m) strip of brush from either side of the fence to make it more effective.

A white pine (Pinus strobus seed orchard is being protected from deer depredations in the Shawnee National Forest by a 6-strand, 72 inch (183 em) high, electric high tensile wire fence with strands 12 inches (30 em) apart. This fence is higher and more expensive than most deer fences, but the value of the crop requires this expenditure for long term protection yet is cheaper than many conventional fences (R. Bucklew, personal communication).

Selders, et al. (1981) recommended 2 fence designs for deer depending on the intensity of depredations. Low deer pressures in home and commercial vegetable gardens require relatively less elaborate fences. A 5-strand and a 2-strand electric fence 36 inches (91 em) outside the first will give good protection from deer and other small animals. Wires were spaced 5, 10, 17, 27 and 38 inches (13, 25, 43, 69, and 97 em) above ground on the inner fence and 15 and 36 inches (38 and 91 em) from ground level on the outer fence.

Where deer pressures are high, Selders et al. (1981) recommended a 7-strand overhanging electric fence or a modified non-electric overhanging fence. The electric fence has wires spaced 12 inches (30 em) apart with the bottom wire 10 inches (25 em) from ground level on the line post. This fence covers nearly 72 inches (183 em) of horizontal distance and is only 48 inches (122 em) high. The modified non-electric version uses 48 inches (122 em) of wire netting attached to the first and fifth wires eliminating the second and fourth wires. These fences produce a good physical and psychological barrier.

Variations to any fence design could include plastic streamers attached to the wire strands or scent attendants using peanut butter and aluminum foil to condition deer to electric fences and produce psychological barriers.

## CONCLUSION

I believe economical deer-proof fences must ultimately be electrified high tensile wire. The cost advantages of these fences and their ability to hold livestock as well as repel depredating animals will far outweigh the installation of a conventional fence.

## LITERATURE CITED


ANONYMOUS. 1981. A short story about deer. Fruit Grower. October.

ANONYMOUS, 1983. Fencing out high bumpers. FAA General Aviation News. July-August, pp. 11-12.

AUCOTT, M. 1981. An easy-to-build fence to keep deer out. The New Form. May/June.

GRAHL, D. K,, JR. 1979. Crop damage and deer. Outdoors in Georgia 5:27-29.

SELDERS, A. W., J. B. McANINCH, and R. J. WINCHCOMBE. 1981. High tensile wire fencing. NRAES-11. Northeast Reg. Agric. Eng. Serv. Riley Robb Hall, Cornell Univ., Ithaca, N.Y. 12pp.