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ELECTROBRAID™ FENCING FOR USE AS A DEER BARRIER

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Abstract

The white-tailed deer (*Odocoileus virginianus*) population in the USA has increased from about 350,000 in 1900 to over 25 million in 2002, creating many conflicts with public safety and agriculture. Exclusion of deer from impacted areas using 10-foot-high chain-link fencing is a possibility as the long-term solution; but the high cost of this fencing makes this option impractical. Electric fences have the potential to offer a less expensive alternative as a deer-exclusion barrier. We tested an electric fence design that is marketed under the name ElectroBraid™ (ElectroBraid Fence Ltd., Dartmouth, Nova Scotia). This fence comprises a 0.6-cm polyester rope with copper wire woven into it and is carried on frangible, fiberglass posts set at 15m intervals. From January to March 2002 we conducted both 1- and 2-choice tests on free ranging deer at the 2,200ha NASA Plum Brook Station in northern Ohio. Ten stations, each ≥ 1 km apart were set in areas of deer activity. At each station we erected 5x 5m sites of ElectroBraid that enclosed a feed trough in which whole kernel corn was kept. A trail monitoring device was placed within each site to count deer activity. We recorded deer intrusions and corn consumption at sites both with and without electricity. Mean deer intrusions at treated sites in both 1- and 2-choice tests were < 1 /day while control site intrusions were 84 – 86/day. Mean corn consumption by all wildlife (e.g., deer, raccoons [*Procyon lotor*], fox squirrels [*Sciurus niger*]) differed between treated (< 2 kg/day) and control sites (15 kg/day). Based upon the results of this test and the cost of ElectroBraid™ we conclude that this fence, under the conditions of this five week test, was an effective and economical deer barrier.

The ElectroBraid fence test was part of a research project, the objective of which was to evaluate the efficacy of ElectroBraid brand electric fencing at reducing deer visitation to a feeding site. The Federal Aviation Administration funded the project as part of a line item within an overall budget examining scare devices for use at airports.

Biographical Sketch: Thomas W. Seamans is a wildlife biologist for the United States Department of Agriculture's National Wildlife Research Center field station in Sandusky, Ohio. He received a B.S. degree in wildlife science from Cornell University and an M.S. in wildlife management from the Ohio State University. His work has focused on finding biologically sound solutions to conflicts between people and wildlife.