

## Low-Cost Slant Fence Excludes Deer from Plantings

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Over the past several years deer have become the #1 pest of horticultural crops in Virginia as well as of home gardens and landscaped grounds in both suburban and rural communities. Countless types of repellents have been tried with varying degrees of short-term success, but excluding deer by fencing them out of plantings they are devouring has been grower-proven to be the **only** successful method providing long-term deer control. However, construction costs for 8' or taller conventional woven wire fences is prohibitively high for most folks and for fencing larger agricultural fields and home grounds.

Virginia strawberry growers have suffered great losses to deer feeding on the green plants, especially growers in milder Virginia areas with southern strawberry varieties Chandler and Sweet Charlie that remain green all winter. Growers of hardy Eastern U.S. strawberry varieties with leaves that senesce or die in dormancy have found their plants are more attractive to deer in spring, summer and fall months. I cannot recommend commercial production of strawberries in most areas of Virginia unless an effective deer exclusion fence is constructed at the time of planting! Green strawberry leaves are known to be high in phyto-nutrients, a "5-A-Day salad browse" highly sought by deer who seem to "come out of the woods" to devour strawberry and other horticultural plantings.

**A Low Cost Virginia Deer Control Success Story:** In 1995 strawberry grower Hugh French in Cumberland County, Va., after repeatedly losing 3 acres or more of berry plants to deer feeding each winter for several years, constructed a 7-strand 5' height high-tensile electrically-charged slant deer fence. Fence design was developed by Gallagher Corporation, a New Zealand fence manufacturing company (with dealers worldwide) that first published this design back in 1984. For the past 3 years he has had 100% deer control with this slant fence that surrounds 12 acres of strawberries. Other growers are now beginning to enjoy similar success in deer control by building their own slant fences. Previous to Mr. French's fence construction, in efforts to reduce deer feeding, he had obtained state wildlife control permits allowing massive deer elimination by hunting each

year. However, deer feeding damage to his strawberry plants seemed to increase as more animals were eliminated each year!

Apparently the 3-dimensional effect of the slanting tier of wires confuses depth of field vision of deer so they will not jump by night or by day over the relatively short, 5' fence height. Normally a 5' fence height would offer absolutely no impediment to deer intent on devouring horticultural plants! Part of the slant fence's success also may be credited to the electrical fence charger designed by the Gallagher Corp. especially for deer conditioning/control without harming them. When they approach the inwardly slanting fence and touch an outer top wire the electrical jolt lets them know the fence is not deer-friendly, nor is it friendly to dogs or to children. Good neighbors will certainly post signs warning others not to touch or try to climb through the electrified slant fence. Otherwise, eager perpetrators of litigation may rush to "trip" or "fall" over your fence in their haste to serve you papers!

Small animal exclusion, such as for groundhogs also can be attained by placing the lowest of the 7 electrified wire strands just a few inches off the ground. Normally the 7 wire strands are placed about 1 foot apart for the 6 strands up to the vertical line posts, with the 7th or top wire placed on the end of the slant posts protruding some 1 and 1/2 feet outward beyond each vertical post (see [figure 1](#)). Hunting house cats also may be excluded by well-placed lower wires electrified specifically 1) not to harm small animals or children other than the unpleasant jolt when the fence is touched, and 2) will not lose power with snow loads.

After deer severely damaged our summer, 1997 research planting of Eastern strawberries at our Kentland Research Farm near Blacksburg, we also constructed a slant fence. Unknown varmints, possibly groundhogs (or deer), also devoured several varieties of snap beans adjacent to our strawberry plots. When my prize experimental selections of half-runner bean plants were eaten nearly to the ground, that was my final wake-up call to action! We join Hugh French, Bernell Williams and others with slant fences, looking forward to providing no more edible landscape for wildlife in our hort. crops! We used 8' length treated landscape timbers for our line posts placed 2.5' in the ground with 5' height remaining above ground (some cut the posts back to 4' height), spaced every 30' along the perimeter of our plots. We bolted an 8' landscape timber to each line post at a slanting angle allowing the top end of each slant post to protrude outward from each line post so that top ends of slant posts were 5' above ground ([fig. 1](#)). The bottom end of each slant post rests on the ground, is not placed in the ground. For field equipment and personnel access to plots inside the fence, we used non-conducting plastic electric fence handles and tensioners to provide an 8' long access near one corner. We can take down each wire strand and move the strands to one side upon entering or exiting the plots.

For under a dollar per running foot of fenced land perimeter for purchased supplies (not counting our labor) we believe this is the most economical, long-term solution to our horticultural deer damage control problem in Virginia. For more information and equipment to construct the slant fence please contact a Gallagher dealer in your area.

Special thanks to Mr. John Carden, Gallagher representative in Central Virginia, for his assistance to growers and to us in the construction of deer control slant fences; to Mr. Hugh French for first demonstrating this fence design and for his insight on the multi-years effectiveness of the slant fence in a very high pressure deer damage area; to our student Extension summer intern, Robyn Otto, for assistance in maintenance, even partial replanting of damaged summer strawberry plots; and, to Mr. Jon Wooge, Mr. Buddy Poff and Hort. farm technician crew for their rapid construction of our slant fence on short notice.

Trade names are used in this publication for information purposes only. Virginia Cooperative Extension, Virginia Polytechnic Institute and State University, and Virginia State University do not warrant those mentioned nor do they intend to imply discrimination against those not mentioned.

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**Figure 1  
Slope Deer Fence  
7-Wire High-Tensile Electric**



fig. 1

This wildlife control fence design uses flexible spring-loaded, 14-gauge high-tensile wire. The fence is designed to withstand the impact of deer, falling trees, thermal expansion and contraction, and snow/ice loading with minimal maintenance or repair.

Minimal weed control is necessary with high-power electrical energizers specifically designed for the slant fence. Growers may elect to use an industrial strength fence-line or right-of-way herbicide application under the slant fence to provide multi-year vegetation control from one application. Do **not** use soil-persistent vegetation control herbicides near valuable shade trees or landscape plants. Heed and follow all instructions on product labels.

Credit for the illustration is given to Gallagher Corporation.

**Note:** Upright post in illustration above has been cut to 4' height. Top out edge of slant post is at 5' height. Deer are spooked from jumping the fence by the slant or slope, **not** by fence height. Too much height causes too steep (more than 45 degrees) a slope or slant which will be ineffective.

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