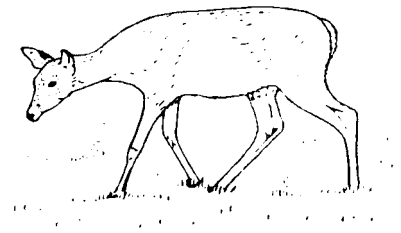


# Deer and Agriculture In West Virginia

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Publication No. 819

## High-Tensile Fence— Do's and Don'ts

### CRITICAL POINTS IN CONSTRUCTING HIGH TENSILE FENCE

- Construct according to design and materials specifications.
- Build sturdy, adequate brace assemblies.
- Provide proper wire spacing, attachment and tension.
- Adequately insulate wires from other fence components for electric fences.
- Use compatible fence components.

### DO'S

- Seek advice, information and participate in training programs available.
- Position fence line at least 5 feet from old fence row, brush line or woods.
- Use only strong, high quality posts and brace rails to build sturdy brace assemblies. Pressure preservative treated (PPT) pine posts should have specified treatment retention of 6 to 8 pounds creosote or 0.40 pounds CCA per cubic foot of wood.
- Use only high tensile Class III galvanized line wires with in-line strainers, wires at correct spacing.
- For a stronger fence, use proper crimping sleeves for attaching and joining wires rather than tying wire knots.
- Use only high strength insulators specially made for HT fence.
- Use PPT pine or untreated locust with insulators or self-insulating creosote PPT selected hardwood for line posts for electric fences.
- Use self-insulating creosote PPT selected hardwood battens or heavy duty fiberglass T-posts as wire spacers between electric fence line posts.

—Use high voltage, low impedance, short pulse charger, AC plug-in type preferred, but battery-operated and solar models are effective for remote locations if battery power is maintained.

—Provide adequate charger grounding if all wires are to be "hot," provide adequate ground returns at specified intervals for "hot" and "ground return" systems.

—Connect all hot wires and ground return wires together at each end of fence section for maximum current flow. Use the same HT wire for connecting line wires electrically. Connect with crimping sleeves or screw connectors.

—Properly ground the uninsulated top wire used for some fence designs for each section of fence or every 1500 feet in normal or dry conditions, every 3000 feet for wet conditions.

—Also, follow this procedure underneath any overhead electric utility lines.

—Install lightning arrestor near the charger, at the end of fence line and at the highest point of the fence. A lightning choke to cause a blocking effect for the extremely high lightning voltage is also recommended.

—Plan a vegetative control maintenance program to minimize voltage drop, especially during wet weather.

—Provide a 5 to 8-foot clear area on the deer side of fence.

—Check fence frequently for adequate voltage, breaks and other physical deficiencies which can make fence ineffective.

—Obtain a fence voltmeter to eliminate guesswork in checking fence voltage and performance. During times of high deer pressure, voltage should be checked daily.

—Post electric fence warning signs at maximum 200-foot intervals on the fence.

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## DON'TS

—Forget to learn and follow recommended procedures.

—Try to “cut corners” on material and design specifications.

—Substitute materials of lesser strength or longevity.

—Construct fence within a foot or so of existing old fence, fence row, or tree line at edge of woods.

—Work with high tensile wire without wearing recommended protective clothing—hand, eye and face protection.

—Run out or partially install wires without installing and connecting charger and grounding so wires can be electrified during non—working times.

—Clasp any electric fence with the hand to see if it’s “hot.”

—Use chargers not recommended for this type electric fence.

—Let vegetative growth enclose fence.

—Expect fence to be effective forever with checking at frequent intervals and after electrical and wind storms, for damage and repairing as needed, and performing routine maintenance.

—Forget to replace discharged batteries on battery-operated chargers at fairly frequent intervals (3 to 10 weeks).

—Expect one 2 or 3-foot ground rod to always be an adequate charger ground. Grounding adequacy test can be made with fence voltmeter.

—Expect fence to be effective, especially for deer, at greatly reduced voltage.

—Give up, if greatly reduced voltage occurs, but rather use a systematic approach with voltmeter to locate the cause.

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