

Four Wire Electric Fence Designed to Control Deer Access

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What:

This 4 wire electric fence design can be established as a temporary barrier to control deer access to forages or to protect high value areas from deer (e.g., gardens). This design was developed by Dr. James Kroll-SFASU and has undergone several years of field testing. We have used the electric fence design throughout the summer of 2015 to control deer access to forage cowpeas at TAMU-Overton.

Why:

Landowners may wish to plant summer forages for deer, but lack planting sites of sufficient size (e.g., 5 to 10 acres) to prevent overbrowsing of cowpeas in the first 30 to 45 days of growth that could eliminate the stand. The moveable fence design can also be used to allow limited access by moving part of the fence or establishing a gate opening to keep deer using the plot leading up to hunting season in early October (e.g., MLDP holders, youth hunts, archery season). One strategy tested by Dr. Kroll is to fence the entire stand until peas are up approximately 6 weeks, then “give” the deer half the plot while keeping the other half protected. Monitor deer use of the unprotected half and as the browsing becomes severe, “flip-flop” the fence allowing them access to the ungrazed half and re-protecting the browsed portion. The fence can then be “flip flopped” additional times throughout the course of the growing season.

Where:

Areas as small as ½ acre can be planted in cowpeas without concern for overbrowsing that typically result in cowpea stand failure during the first few weeks following germination.

How:

The 3 dimensional effect of the configuration appears to prevent deer from jumping the fence. The design is as follows:

1. Outside hot wire: Uses electric fence “tape” set 18 inches off the ground. Twist tape so it will “flutter” in the wind adding to the effect.
2. Center hot wires (2): Uses electric fence wire (white) with wires set at 12” and 24” above the ground one over the other. These are 3 feet inside of the outside hot wire (#1 above).
3. Inside hot wire: Same setup as outside hot wire (18” above ground) using twisted tape for a “flutter” effect in a breeze. This wire is established 3 feet inside of the two center hot wires (#2 above).
4. Corner posts are 6’ t-posts equipped with insulators.

5. Every 20' between t-posts, electric fence posts are established. Use white posts if possible. On long runs, additional standard 6' t-posts may be needed every 100'.
6. Use a charger that can deliver 5,000 volts
7. A metal t-post is driven several feet into the ground adjacent to the charger to serve as ground.

As you can see, the entire configuration is only 6 feet wide and the tallest wire in use is only 24" off the ground. Deer could easily jump the wire but the 3 D effect has proven successful at preventing deer entering the cowpea stand.

Results:

The 4 wire electric fence configuration accomplished the goal of protecting forage cowpeas until the stand could establish and withstand heavy browsing pressure by white-tailed deer. There were at least six different deer (four does and two bucks) using the cowpea plot on a continuing basis throughout the summer. During the trial which ran from June 2 through September 24, 2015, only two deer breeches of the cowpea stand occurred: 1) On June 26th, a doe was photo-captured by a remote-sensing camera completely inside the enclosure with only light browsing noted and with no other photo evidence of her presence, it is assumed she was only inside for a few minutes and 2) on September 23, 2015 a 1 ½ year old buck was photo-captured between the outermost (18" high) electric tape and the two center wires at 12" and 24". The buck browsed available cowpea plants in the 3' wide corridor for several minutes before exiting. Neither of these breeching events caused damage to the cowpea stand.

Additional Tips for Success:

1. Erect fence immediately upon planting. Do not wait for germination!
2. Consider allowing some of the cowpeas planted to be adjacent to but outside the enclosed area protected. This will help get the deer onto the forage.
3. Using herbicide (e.g., glyphosate) to keep cowpeas out of the wires will be necessary since the wires are so close to the ground. The biggest concern is cowpea vines and stems grounding out the system.
4. Never leave the system up but turned off. This may encourage deer to challenge the fence with no ill effects if a reward awaits them inside the enclosure.
5. Setup the system at least 15 feet away from adjacent woods or similar cover—in most cases that will be a couple of shredder widths that will be needed for access anyway.

