Deer Exclosure Design Resources

The deer exclosure design outlined here is the result of many hours of research and experience. It is cost effective, easy and fast to install, and easy to maintain and repair. We think it is the best design currently available.

Siting: If you are interested in installing a deer exclosure, try to site it in an area with intact native understory biodiversity, such as trillium, other native spring ephemerals or native understory shrubs. Enclosing areas with intact native biodiversity will allow local genetics to spread within your exclosure. Don't worry if you can't find such an area or if you don't see much regeneration of native understory plants – decades of deer overpopulation have eliminated the native seedbank in many places. However, a deer exclosure also offers the opportunity for active restoration of native understory biodiversity. (Just be sure to source bare root plants to avoid introducing Asian jumping worms!) You can expect tree regeneration to flourish without much assistance.

Installation: This exclosure design uses heavy duty plastic fence suspended from monofilament support wire. The wire is passed through brackets attached to existing trees. This eliminates the need for costly, labor-intensive fencepost installation, and minimizes disturbance to the area. Plastic fence is also easier and cheaper to repair and maintain than wire fence. The fence material we recommend has a 15–20-year life.

Many fence designs rely on screws or hooks driven directly into trees. This presents a problem as trees grow into and around the hook, compromising the fence. Non-galvanized or non-coated hooks and screws can also wound and eventually kill trees, especially sensitive species like maples. This design's hooks are mounted on blocks that are then screwed to the tree. As the trees grow, simply back out the screws on the block with no disturbance to the fence.

First, determine the number of brackets necessary for your project, approximately one bracket per 20' of exclosure perimeter. (Near-circular exclosure shapes are the most efficient use of material.) Assemble the brackets according to the diagram below. Mount the brackets to the trees at 7' height (use a 7' stick as a guide). Be sure to mount the brackets to the outside of the trees, facing away from the area to be enclosed. When screwing brackets to trees, leave a $\frac{1}{2}$ " gap between the back of the block and the tree to allow for growth. Check the brackets annually and back out the screws as needed, usually beginning after the first 2-5 years.

After bracket installation, you will run the support wire. We recommend 8-gauge monofilament support wire from Deerbusters (see resources). Deerbusters also sells the tensioning tools needed to tension the wire. Finally, after the wire is threaded and tensioned, you will attach the fence to the support wire using Hog Rings along with a tool called a Hog Ringer. Approximately 8-12in of the fence of the fence should lay on the ground in an L shape. Once the fence is installed it should be monitored weekly for damage and repaired as necessary.

Recommended materials and tools:

- Fence: <u>Trident Extruded Extra Strength with Reinforced Bottom Edge.</u> The 8ft tall option is a good balance between cost (\$430/330ft), strength (750lb breaking strength), and useful life (15-20years).
- Screws: Use coated or galvanized 3.5in lag screws
- Hooks: Use 1/2in galvanized eye hooks
- <u>8 gauge monofilament support wire</u> offered by Deerbusters
- <u>Tensioning tools</u> offered by *Deerbusters*. Includes hog ringer and hog rings for attaching fence to the support wire.

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Mounting bracket design

