

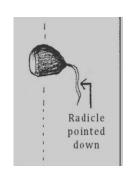
The American Chestnut Foundation

Direct Seeding Chestnuts

Direct Seeding

Direct seeding is recommended for a number of situations especially for large orchard plantings. Plant your seeds no more than a % - 1-inch deep and be careful with emerging radicles. Remember it is the root and should point down.

It is best to store seeds over the winter and plant in the spring as soon as the ground has thawed. This will reduce losses due winter foraging by rodents . Additionally, emerging radicles will provide some assurance of the health of the seeds.



Storing Your Seeds

Keep seeds cold but don't freeze them — between 34° and 40° is optimal. The radicle (young root) will likely emerge during cold storage. **Be gentle at this stage.** The seed radicle is very fragile and easily broken off.



Seeds need to be kept damp, not soaking wet. If you can squeeze water from the peat moss it is too wet. Store seeds in moist peat moss inside a plastic bag or container. Peat moss has anti-fungal properties that will prevent the growth of mold. The vegetable crisper drawer in the refrigerator is usually a good climate. Best not to store with fresh fruit, as the ethylene produced can cause the chestnuts to ripen too quickly.

Choosing a Planting Location

- ♦ Well-drained soil is very important. Dry, sandy, gravelly or loamy soil is good. Make sure to avoid clay soils or those that retain water.
- Gently-sloped or well-drained bottom lands are preferred for planting.
- The pH of the soil should be slightly acidic, between 4.5 to 6.5. You can find the pH of your soil by using a pH soil test kit sold at most gardening centers.
- Chestnuts are shade tolerant but shade is not optimal; plant them in full sunlight, at least 10 feet away from adjacent woodlands. Full sun will encourage the tree to grow quickly. *Chestnuts will only flower in full sun*
- Thoroughly weed the area where you are planting to eliminate competition for resources with other species.

 A weed-free space about 3-feet in diameter is good for young trees.

Protecting Seedlings

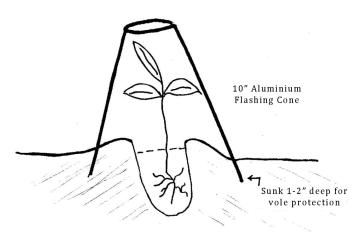
Chestnuts seem to be a delicious food for just about every animal around (including bears) so protecting your seedlings is very, very important.

Protecting your saplings from animals can be done in a number of ways.

At the ACF farm in Meadowview, aluminum flashing is used to create a 10" high, 3" wide cone around our sapling and we sink it 1-2" deep to keep it secure. This cone, which is slightly narrower at the top, protects the sapling from root and basal damage by small animals and tunneling rodents, like voles.

Cylinders made of hardware cloth, tree shelters (2' high maximum) and even wire cages are also possible.

Remember: You're protecting your saplings from everything from rabbits to turkeys to deer. Most tube or cylinder shelters can be sunk to protect against voles as well. The height of the shelter should correspond with the wildlife threats you have. If deer browse is a concern,



The Meadowview Method of protecting chestnut seedlings

use a taller shelter, if not, go smaller. It is best to pick the shortest shelter appropriate for your site. A combination of a small tube shelter for vole protection and a wire cage to keep larger animals away can also be used.

Weeds

The #1 killer of chestnut saplings is WEEDS.

Keep at least a 2-3-foot diameter area around your sapling free from any other plant species. Grasses are the most challenging — be sure to get out their roots before you plant.

Regular weeding is important, but sometimes it isn't enough. <u>Landscape fabric and/or mulch</u> work well for additional protection. If using mulch, some type of vole protection is also recommended.

<u>Herbicides</u> can be used but should only be attempted by someone with experience using chemicals. **ALWAYS** follow the directions on the label.

Other Pests

There are many pests that can be problematic for chestnut, such as Japanese beetles, cicadas and gypsy moths, just to name a few. The best way to identify and understand the pathogens, pests and other problems that may arise in your area is to talk to your local extension agent (http://www.csrees.usda.gov/Extension). They work closely with the USDA and have offices on the regional and/or local level. They will know your area and can provide most of the detailed information you will need.

Learn More

Contact your nearest TACF chapter office with any further questions. The American Chestnut Foundation currently has 16 chapters located in Alabama, the Carolinas, Connecticut, Georgia, Indiana, Kentucky, Maine, Maryland, Massachusetts/Rhode Island, New York, Ohio, Pennsylvania, Tennessee, Vermont/New Hampshire, Virginia and West Virginia. To find the Chapter nearest you visit: www.acf.org/Chapters.php

