Storing and Starting 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. Move seeds as little as possible. The radicle shown in the adjacent image is very fragile. If it breaks, the seed will no longer be viable.

Store seeds in moist peat moss inside a plastic bag or container. If you can squeeze water from the peat moss, it’s too wet! 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.

» Start your seeds in a 2-quart milk or juice carton, with holes punched in the bottom for drainage, works well. Alternatively, a tall (12” deep), narrow pot will suffice.

» Fill with soilless potting mix (works better than potting soil). A blend of 1/3 each peat, perlite and vermiculite is recommended but note: this mixture can dry out quickly. Be sure to monitor moisture levels.

» Plant your seeds no more than a ½ - 1-inch deep and be careful with the radicle. Remember it is the root and should point down.

» Your seed needs to be watered about the same as a woody plant, allowing the potting mix to mostly dry out between watering.

Before Transplanting

Introduce leafed out seedlings to the outdoors gradually, to allow time to acclimate to solar radiation. Start by placing them outside in a sheltered location, such as on a sun porch or under a shade tree. Remove any remnant nut from the base of the seedling so as not to attract wildlife. Leafed-out seedlings will require a couple of weeks to acclimate. Dormant seedlings (without leaves) will not require an acclimation period.

Transplant after the ground in your area has thawed and, for leafed-out seedlings, after risk of frost.

Choosing the 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.
Transplanting Outside

Dig a hole the same depth as the pot or root system, and about twice as wide. Hold the seedling in the hole so that the root collar (little bump where the root and stem join) is level with the ground surface. Fill the hole half-way with soilless planting mix, pack well around roots, and then fill the rest of the way and pack down again. Air pockets can cause problems for the roots, so don’t plant too loose but try not to crush the roots into the hole.

- Adding forest soil from under a pine or oak tree to the planting mix may be beneficial to young trees. Just mix a handful or two with the planting mix used for each tree.
- Seedlings should be planted at least 10’ apart in rows and those rows 20’ apart. Your trees need room to grow!
- Fertilizers are not necessary but can be beneficial to your chestnuts. If fertilizing, an acid-loving fertilizer high in nitrogen is recommended, but read labels well and be sure to follow directions closely.

Protecting Young Trees

Wildlife
Chestnuts seem to be a delicious food for just about every animal around (including bears) so protecting your seedlings is very, very important. You will need to protect your saplings from everything from rabbits to turkeys to deer. Most tube or cylinder shelters can be sunk to protect against voles as well. If deer browse is a concern, we recommend cages or fencing rather than tall tree shelters. It is best to pick the shortest shelter appropriate for your site. A combination of a 12”-29” tree shelter and cage is recommended for plantings of less than 25 to 50 trees.

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. Landscape fabric and/or mulch work well for additional protection. If using mulch, some type of vole protection is also recommended.
- Herbicides can be used but should only be attempted by someone with experience using chemicals. ALWAYS follow the directions on the label.

Insect 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 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.