

Badgersett Standard Tubelings - Growing Instructions – 2014 Page #1

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Inspect Your Shipment Now!

• As soon as you receive your plants, inspect for shipping damage. You must report damage to the carrier and us immediately, or the shipper will not accept responsibility. Instructions for reporting damage are on the shipping label.

**Read These Instructions
Follow these instructions!
Or Throw these plants away Now, and save yourself the trouble.
Please- read and follow these instructions carefully!**

• Do not let the plants stay in a closed box any longer than absolutely necessary.

• Tend the plants immediately: make sure leaves have air and roots have adequate water; but • **DO NOT WATER heavily if you are going to plant immediately.** The root systems pull from the tubes better if they are a little dry. Water thoroughly right AFTER planting, of course.

If You Were Expecting Bigger Plants

• In 3 years time, these tubelings should be just as big as, OR BIGGER than the usual older “bare root” plants

Because these smaller plants are able to grow into their new home with much less stress than if moved with naked roots, in most cases they will grow much faster than bigger transplants. Yes, they are small, but years of experiment has proven this method is the fastest, easiest, least expensive, best way to go.

How To Plant...

• These seedlings are actively growing, with intact root systems in the plastic tube containers. They can be planted at any time of the growing season, to July 30 for zone 5 and colder, and August 30 for zone 6 and warmer. We have planted them as late as mid September, but late planting has worked less well in recent years.

• Plant them now if you can. These plants are ready to plant out now, the day you receive them. All of our plants are shipped “decapitated”; that is, they’ve had their tops cut back to make them tougher. The young shoots from the side buds may look tender, but they tolerate sun, wind, and drought much better this way. Some of the old leaves may burn off after planting, but this does not matter.

Plant as soon as you can. This will give them their best chance. Don’t worry if you need to wait a few days before planting, but be aware that the longer you must wait, the more things can go wrong. Plants held a month or more past shipping may get “pot-bound”, and may be slow to start growing again once planted; some have remained “stuck” for a year.

• **Holding Plants.** • To hold them a day or so, just keep them cool and moist. • If you must keep the plants more than a few days before planting, it won’t hurt them, and it’s now easier than ever. They will need to be watered moderately. Don’t soak them; they don’t need it, and it can make planting more difficult. **Don’t hold them in shade or refrigeration; sun is better for them.** If you keep them in heavy shade, they will lose their adaptation to full sun.

• **Water the plants from the bottom up:** stand the tubes in a tub or other container filled with water about 4” deep. This is more certain than sprinkling water on them- spray from a hose always misses a tube or two, which will mean a dead plant. If you can dip them for about 1 minute, the plants will have taken up enough

water for a couple days. In hot windy weather, in the sun, they’ll need water more often: keep an eye on them!

• Plants being held must be protected from animals before planting, since mice, squirrels, raccoons, etc. will damage closely packed seedlings when trying to get at the nuts.

• **Ground Preparation.** Requirements vary greatly depending on your soil.

When planting on ground recently in row crops, deep compaction of soil can slow root growth; we use a sub-soiler to break through any hardpan, then plow and/or disc. On old pasture or CRP you can spot or strip spray sod with Roundup®, 1-2 weeks before planting, then plant into the killed sod. Our preference is to shallowly (6-12”) till a 3-4 foot wide strip of ground where the plants will go, at least a week before planting. This makes it easier to cultivate the ground and keep new weed growth under control. Tilling deeply will cause the soil to settle later, sometimes leaving your plants with top roots in the air if you have not allowed for this.

• **The Hole.** These plants do not need a big hole; just enough to get them into the ground. We use several tools depending on the looseness of the soil; a “bulb planter” that cuts a plug out, a “dibble” bar, that punches a hole exactly the size of the tube-pot, or a shovel. Standard tree planting “bars” are not good; they are designed to pack soil hard around bare roots; with our plants, they will crush the root ball and kill your tubelings.

• **Removing the plant from the tube.** The plants handle best if they are NOT watered just before planting; soaking-wet root balls crumble easily. Grasp the base of the stem just above the soil, & gently pull the root ball straight out of the tube. Massaging the tube gently can help loosen the root ball. Once out, handle carefully; the plants are tough, but roots and new buds are tender.

• **Planting Depth.** Plant so the root ball is slightly deeper than it was in the pot; 1/2 to 1 inch deeper is best. Covering the roots with soil is absolutely necessary to prevent drying out; any exposed potting soil will act as a wick and dry out the whole root ball. Planting deeper than 2” could hurt the plant; some of the plants could die. If the soil you are planting into has been extensively cultivated, or “fluffed” by tilling, it will settle quite a bit, and may expose the roots of the plants unless they are set deeper to compensate for settling; 2” may not be too deep in this case.

• **Planting.** Handle the plants gently, firm the soil around the root ball without crushing it. The tiny root “hairs”, which are what actually absorb water, are fragile, and break if the ball is flexed.

NEVER “stomp” them in!

• **Water them well within 6 hours of planting.** Ideally the ground around each plant MUST receive 1/2 gallon or so. This “watering in” is **critical** to removing air pockets and firmly connecting your plants to the soil;

WE DO NOT GUARANTEE ANY PLANTS NOT WATERED IN! Don’t dump water right on the plant; water around it. Try to water so the roots of the plant get wet, but by absorbing water from the nearby soil. Be sure root ball is still covered with soil after watering!

• **Weather-** If you have a choice, it can help to plant as a cool, wet weather system moves in. Avoid planting in hot sun; on sunny days after mid spring **we plant only after 2-3 PM.**

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• In extreme drying conditions, removing leaves will help; pinch or snip off all but the newest leaves. Be careful not to tear the bark! Of course plants need leaves to grow, but removing all the leaves can be the right thing to do!

• **Irrigation- for the first month**, the tubelings should receive the equivalent of an inch of rainfall per week. If they get that from rain; fine; if not; water. Less than a half inch/week may slow them down; several weeks short on water will hurt them. After 2 months of good growth, they'll be much more flexible; watering in the 2nd year is necessary only under severe drought conditions.

• **This watering is critical**; because each tube contains a little Osmocote time-release fertilizer. Under extremely dry conditions, this can build up to toxic levels, if not washed away by water.

• **Remove the nut?** Mice, squirrels, raccoons, chipmunks, groundhogs, and other critters will still find the nut attractive on newly planted tubelings. If you are planting in an area where there is a lot of wildlife pressure, it may be best to gently pull or snip the nut off before or right after planting. The plant doesn't really need the nut for nutrition at this point, though it will certainly use it if the nut survives. In most cases if a squirrel goes after the nut on a newly planted tubeling, it will just pull the nut off, leaving the plant unaffected. Animals are individuals, though, and sometimes plants may be pulled out of the ground- be on the lookout for this; particularly in very sandy soils, where a new plant may be easily pulled before its roots grow and anchor it. If in doubt, plant a few and watch several days before planting the rest.

• **Weed Control. Try to keep weeds at least 1 foot away** from the plants in the first years. We sometimes cultivate, tilling no deeper than 1"; and never closer than 6". In larger plantings, a tractor mounted corn cultivator has worked very well. When it is too wet to cultivate, mow. *In our larger plantings, mowing is all the weed control the plants get, or need.* The few weeds remaining in the row don't hurt, and may actually help; by distracting deer and rabbits and providing a little wind protection.

• **Spraying herbicide** is possible, but very difficult because of the high probability of damage to the seedlings; they have leaves and green bark right down to the ground. We have used both Roundup® and Princep®, but **no longer use either** because it is not necessary. Unless you are very experienced with herbicides, we recommend you not try using them on these crops. Even driftless "Wick" applicators are still dangerous to your plants, however, if you hit a stem accidentally, or put herbicide on a grass stem that the wind will blow so the grass touches the seedling before the herbicide dries.

• **Mulches** can be beneficial in dry years and for weed control, but most kinds encourage mice and steal nitrogen from the plants. Mulches keep soil cool in summer, and warm in winter; this may not be good for best growth and hardiness. We've tried "landscape fabric", but feel it requires too much maintenance; storm winds can rip it up if not very carefully anchored.

• We have not found "tree shelters" to be cost effective; they must be staked, weeded, tended, and lifted in fall to allow the plants to go dormant in time for winter. They can kill bluebirds, and in wet years, they can make the environment inside the tube too wet.

On the other hand, we have had reports of several plantings where they definitely helped the seedlings get established. If you are interested in them, try a few on your site first, before investing in large numbers of tubes. 12" or 18" tubes are fine for young hazels, don't have to be staked, and can be removed after a year.

• **Fertilize** at or soon after planting, or spray plants with a foliar fertilizer solution. Hazels can be fertilized at any time, but do not fertilize chestnuts after mid summer. Mature leaves should be dark

green until they turn color in fall. New leaves can be light green, or reddish. A general purpose fertilizer like 10-10-10 is fine the first year. We highly recommend ensuring sufficient fertility by putting 1/2 cup granular fertilizer in a 2-5" deep hole 18" downhill of each plant. If there is no slope, put the holes 24" away from each plant to eliminate risk of fertilizer burn in heavy rains. Be sure your fertilizer does not contain any herbicides, as "weed and feed" lawn fertilizers do. In general, hazels need nitrogen and potash more than other nutrients, chestnuts need nitrogen and phosphorus. The soil pH is also important; hazels prefer 6.5 to 8.5; chestnuts 5 to 6.5; chestnuts on high pH soils will do better if nitrogen is doubled.

• NEVER put fertilizer in the hole with the plant; or right at the base of the stem; keep it at least 8 inches away.

• Pink or red young leaves are common, and do not indicate nutritional imbalance, in fact this indicates good fertility. Some of our young hazels normally have a red spot in the center of the leaf.

• **Once hazels and chestnuts are established** more than a month, they will survive all sorts of disasters, from drought to being stepped on or mowed. They will be hurt, but a healthy plant should sprout again from the roots: you will not have to replant.

• **You can mark each plant** with a stake or flag, so you can locate young plants if you come back to find 3' tall weeds growing over your 1' seedlings. Place the stakes consistently, and far enough from plants so windstorms won't beat the leaves on the stake.

• **Animals. We spray egg to discourage deer and rabbits** from browsing new plantings: Liquefy 1 doz. eggs in a blender, mix in 5 gal of water and spray on the young plants until just wet. This won't wash off in rain, and is effective for 2-4 weeks. **Do this the same day you plant if possible**, to prevent "curiosity browsing". Don't use a heavier mix than this; we've had several instances where raccoons pulled out newly planted tubelings after they were sprayed with heavy egg mixes; probably looking for an egg... if you have a lot of raccoons, don't spray egg at all, until 2 months after planting; use an alternative commercial deer repellent if necessary. A commercial raccoon repellent, "Scoot®" is available; based on pepper; our initial tests look good.

• **Rabbits & Mice may attack young seedlings**; for chestnuts, spiral plastic tree guards are very effective in stopping them. Put the guards on in early fall, and remove them in spring. Young hazels may sometimes be snipped off by rabbits or mice; a commercial repellent such as Hinder® will help. Be on the lookout for animal damage as the seasons change. Weed control helps; rodents would rather not feed where they are exposed to predators. The plants will survive in any case, resprout, and in a few years outgrow the critters; once established, hazels are rarely damaged.

• **Direct Planting or Nursery?** In most cases, it will be best to plant your tubelings directly into their permanent location. Transplanting 2 year-old hazels and chestnuts is a lot of work because of their large root systems, and will set the plants back because of the disturbance. Moving hazels is extra difficult because they start to grow so early in the year they are typically already leafed out before they can be dug in the Spring. **However**, if your planting conditions are terrible (drought or flood) or you are planting in a situation where they will have to compete with very heavy weeds or grass, or where they may have to deal with extreme animal pressure, it may be best to plant them in containers, or a nursery situation for a year or 2 before transplanting them into the permanent site; the larger plants will cope better.

Good Luck & Good Growing! More Questions?

Ask via email at info@badgersett.com