

## **DIRECT SEEDING WITH TUBE PROTECTION**

### **Acorns**

**White oak acorns do not require a stratification period and begin to germinate in the fall. If they are gathered early after falling, they can be refrigerated and the germination will be delayed. If they are kept moist, they will remain viable until spring, even though they may put out their root radicals. (I place them in moist sphagnum moss (not too moist) and place them in the vegetable compartment of the refrigerator until they are ready to plant. If the roots become too long, they can be pruned prior to planting.**

**The red oak acorns require a stratification period. That is, they must go through a cold period before they will break dormancy. After, I gather them; I soak them in water for a day to kill the small larva that often has invaded the seed. The seed is not destroyed by these critters so do not assume they are non-viable and throw them away, if you are short of red oak acorns. You cannot depend on the “float test” to determine viability.**

**After soaking them, I place them in a zip Lock plastic bag and store them in the vegetable compartment of the refrigerator until spring. Again, sphagnum moss that is moist can be used to hold in the moisture. The moss also seems to suppress the fungus that can be a problem. Some people will soak the seed for a short period of time in 10% bleach to eliminate the**

**fungus. I would not advise this if the seeds are white oak acorn and have started to germinate.**

**Both acorns will have put out their radicals (roots) in the early spring, while in the refrigerator prior to the optimum planting time, but that is no problem.**

**Plant only the seed that has put out its root since you can be certain that the seed is viable. Plant the seed with the radical pointing down and if it is too long, prune it. The seed should be below ground no more than an inch and the soil gently pack the soil over it.**

**Prior to planting, I usually turn over the ground with a spade to loosen the soil. Before planting the nut, I mark in the soil where the nut is going to be placed, then center the tube around the place and pound in the stake where the tube is to be secured. I then remove the stake, plant the seed, then reposition the tube and secure it to the stake.**

**You can apply a pre-emergent herbicide around the tube. I have stopped using pre-emergent herbicides and have had success with glyphosate (Round-up), relying on the tubes to protect the seedlings from the spray.**

**Since the root radicals are already out (and sometimes even the stem is demarcating) the seedling should emerge fairly early. Do not plant the seed too deep.**

**I leave the tube in place through the winter to protect the seedling from rabbits and mice, and then remove the tube in the spring to use on another planting if needed. If not the tube can be left in place for another**

**growing season for protection. They are great to have in place when herbicides are applied.**

**I would advise that several species be planted rather than a monoculture. Oak will do fine with walnuts. Any spacing less than 8 feet may result in the walnut over growing the oak, so I cluster the seeds. That is, I plant each species in groups of 13 to 16. The young trees compete amongst themselves in the early years of development and the slower growing trees are not crowded out. Black walnut, oak, and butternut do well together. Cherry and ash grow faster and can over-power other species if they are planted too close together or too many of them are planted. Clustering is one way to plant the seeds so you can combine all species in the planting.**