Growing Trees & Shrubs from Seeds

Want to try a fun experiment and be rewarded with a healthy new tree or shrub for your landscape? Then this fall try direct seeding a new plant for your yard. You can easily start a new oak or pine tree by planting the seeds yourself.

There are several advantages to direct seeding. First, you avoid the common problems associated with stem girdling roots and poor planting depth (usually too deep) often found with plants grown in black plastic containers or B&B field-grown trees. Second, plants establish and grow more quickly without any disturbance to their roots. Traditionally grown plants may be dug from a field before you buy them, losing over 90% of their roots. It takes many years for a plant to replace these roots.

Finally, you can choose a plant you particularly like with good characteristics like pretty fall color, healthy summer foliage, a nicely shaped canopy, pretty spring flowers or colorful ornamental fruits.

Choosing Seeds

Look for plants growing on their own roots. In other words, don’t try to propagate grafted plants by seed. Grafting is done for several reasons, but one of the most common is to maintain a specific plant characteristic that is not reliably stable through seed production, such as a seedless nature, unusual leaf color (think about variegated maples or maroon-red leafed ‘Crimson King’ maple), a unique plant shape (weeping or columnar plants) or beautiful ornamental fruits (most crabapples are grafted).

Plants with large seeds, like oak, hazelnut and buckeye are easy to work with. Shrubs to consider planting include red-osier dogwood, winged euonymous, Eastern wahoo, false blue indigo, American plum, common lilac, or viburnum. Direct seeding is a particularly helpful practice for establishing conservation or habitat plantings where common, native plants can be used.

In Nebraska, native acorns and most other nuts start dropping in early October. Avoid seed that drops in early August or September because these may be aborted or nonviable seeds. Collect seeds that feel heaviest or have been held on the plant longest.

Collect seeds from shrubs picking fruits from branches, shaking dry seed heads into a bag or pan, or by bagging flowers or entire plants until the seeds are released. In many cases, individual seeds do not need to be removed from the dry or fleshy fruit before planting.

Collect pine and spruce cones when they begin to open in fall, from mid August through October. Place the cones on a dry surface in the sun until they are fully open. Shake or tumble the cones over a screen to remove the seeds. Spruce cones often have a high percentage of empty seeds; they can be separated from viable seed by floating them on ethyl alcohol. The empty seed will float and should be discarded.

Planting Seeds

Fall is the preferred time to sow seeds, since the collected seed will be fresh and most viable. Some seeds, like bur, white and swamp white oak acorns germinate in fall and should not be kept more than a couple weeks without refrigeration.

However, many other seeds, including most conifers (pine, spruce and juniper), walnut, pecan, hickory, chestnut, hazelnut, dogwood, euonymous, Prunus sp. and many others only germinate after cold treatment. Fall planting provides the needed cold treatment naturally during winter, with seeds germinating the following spring.

Seeds may also need scarification or physical disruption of the seed coat to eliminate seed coat dormancy. In nature, scarification occurs as seeds pass through animals’ digestive systems, fungi break down seed coats, or freeze-thaw action breaks up the seed coat.

Scarification can usually be done by rubbing seeds on a file or sandpaper. Some species have especially hard coats, however, and must be soaked in hot water (about 190° F) to soften. Seeds that need both scarification and a cold treatment should be scarified first then planted immediately.

Keep in mind you will likely lose some seeds to wildlife or insects, so it pays to plant more than needed. Extra seedlings can always be removed.
It Pays to Do a Little Research

Before getting your seed-planting project started, it pays to do a little research on the specific requirements of the plants you want to seed. Check out the publications below for specific handling instructions of many different tree or shrub species so your planting will be successful.

Growing Shrubs from Seed, Nebraska Extension, http://go.unl.edu/shrubsfromseed
Growing Conifers from Seed, Nebraska Extension, http://go.unl.edu/conifersfromseed
Establishing Conservation Plantings of Nut Trees and Shrubs by Direct Seeding Methods, Nebraska Extension, http://go.unl.edu/conservationplantings

Your Suggestions are Welcome!
Is there a lawn and gardening topic you would like to learn more about? Sarah Browning is an Extension Educator with Nebraska Extension and can be contacted by phone at (402) 441-7180: by mail at 444 Cherrycreek Road, Lincoln, NE 68528: or by e-mail at sarah.browning@unl.edu.

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