



Time to Order Tree Seedlings for Spring Planting

Diseases, insects, drought and age take a toll on windbreaks, resulting in the need for renovation or tree replacement. Late fall is a good time to assess your windbreak and order trees for spring planting. Most windbreaks, even those with a few gaps, can be renovated to maintain or enhance their effectiveness.

Windbreak Renovation

Windbreaks can have many purposes and are useful both in urban and rural settings. The first goal for many windbreaks is to provide snow and wind protection, but it can also reduce water runoff, prevent soil erosion or enhance wildlife habitat. When renovating a windbreak, make sure the re-designed tree stand meets your goals.

Don't limit your thinking about windbreak plants to just evergreen trees. The list of good evergreen choices for Nebraska landscapes is a short one and you'll have many more plant choices if you factor deciduous trees and shrubs into your plan. Plant diversity is critically important to minimize the impact of invasive, non-native pests.

Effectiveness of a windbreak is often expressed in terms of its density, which is defined as the ratio of the solid area of the trees to the total area of the windbreak. Deciduous trees with a density of 25-35% can reduce windspeed by 50% within the leeward area 5 times the height of the trees. (See more in "How Windbreaks Work", EC 1763)

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Several publications are available from Nebraska Extension and the Nebraska Forest Service providing guidance to renovate and re-design your windbreak, getting it back into a healthy condition and provide benefits for years to come. They are available at <http://www.ianrpubs.unl.edu>. Find the publications by typing 'windbreak' or the publication number into the search box.

- How Windbreaks Work, EC1763
- Field Windbreaks, EC1778
- Windbreak Establishment, G1764
- Windbreak Renovation, EC1777
- Windbreaks and Wildlife, EC1771
- Windbreaks for Fruit and Vegetable Crops, G1779
- Windbreaks for Livestock Operations, EC1776
- Windbreaks for Rural Living, EC1767
- Windbreaks for Snow Management, EC1770
- Windbreaks in Sustainable Agricultural Systems, EC1772
- Windbreak Management, EC1768
- Drip Irrigation Design and Management Considerations for Windbreaks, G1739

Three additional publications are available on the Nebraska Forest Service website.

- Care of Newly Planted Trees, G1195, <http://go.unl.edu/newtrees>
- Trees for Eastern Nebraska, <http://go.unl.edu/easterntrees>
- Trees for Western Nebraska, <http://go.unl.edu/westerntrees>
- Windbreak Design, G1304, <http://go.unl.edu/wbdesign>

Purchasing Trees

Deciding on plant species and purchasing plants is the next critical step in the establishment of a windbreak. This is your best opportunity to avoid plant species susceptible to insect or disease problems. Key points to keep in mind when purchasing tree seedlings include:

- Purchase your stock from a reliable source. Bare-root windbreak tree seedlings are available through your local Natural Resource District office. November is the time Nebraska's NRD offices begin taking orders for windbreak seedlings to be delivered next spring. Over-the-counter tree sales are typically taken until March 1, 2019 or as long as supplies last. Locate your local NRD office and look for the Conservation Tree Program. <http://nrdnet.org/nrds/find-your-nrd>
- Bare-root tree and shrub seedlings can also be purchased from some nurseries. Your seedlings should come from nurseries using locally collected seed or seed from Northern origins. This ensures plants are well adapted to local growing conditions.
- Choose plant material that is suitable for your soils and can survive the environmental extremes of your site.
- Select insect and/or disease resistant plants whenever possible.
- Don't be too quick to buy the cheapest seedlings; they may not be the best value in the long run.

When ordering trees from your local NRD office, a minimum order of 25 seedlings is required; plant species are sold in bundles of 25 each. If 25 of one species is more than you need, then talk with your neighbors. Maybe you can place a joint order and split the bundles. Plants cost approximately \$0.90 cents each, plus tax and handling. You must pick up your tree seedlings when they arrive at the NRD office in spring.

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Plant species commonly available through the NRD offices include the following.

- **Evergreen trees-** Eastern White and Ponderosa pine; Eastern red cedar; Colorado Blue, Norway and Black Hills spruce, and Concolor fir.
- **Deciduous trees-** Bur, Northern Red, Chinkapin and Swamp White oak; Black Cherry; Black Walnut; Bitternut hickory and Sugar maple.
- **Shrubs-** American plum; Hazelnut; Redosier dogwood; Chokecherry; Black chokeberry, Serviceberry; Elderberry; Common lilac; Amur maple; Skunkbush sumac.

Usually, windbreak seedlings are two years old and be 12-24 inches tall, with full, healthy root systems. Bare-root seedlings must be handled carefully to ensure good survivability and performance.

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Image by Sarah Browning. Caption - Many windbreaks suffer tree loss due to insects or disease, like these Scotch pine trees dying from pine wilt.