

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

BERT L. COLE  
Commissioner of Public Lands

WEBSTER STATE FOREST NURSERY

Route 4, Box 425A, Olympia, Washington

Phone 357-8169

WINDBREAK AND SHELTERBELT PLANTINGS

Study These Pages Carefully Before Making Order

CHOOSING WINDBREAK ASSORTMENTS

Single trees and groups of trees are universally used for the multiple purposes of protection from wind, for shade, and for farm beautification. The use of rows or belts of trees is a great deal more effective for wind protection and when properly established and maintained is a source of many benefits.

Windbreaks should be designed to fit specific situations, and there are many arrangements of trees and shrubs that will result in satisfactory windbreaks, just as there are many different arrangements of building materials possible when building a home. Get a copy of Pacific Northwest Bulletin No. 5 "Trees Against the Wind" from your County Extension Agent.

The following has been prepared to help farmers choose a satisfactory assortment of trees and shrubs for windbreak purposes.

General Information About Windbreak Planting

1. For each kind of stock, the species listed on the price list are arranged in the order of their general satisfactoriness for windbreak establishment in Eastern Washington.
2. Tree windbreaks will produce a marked reduction in wind velocity for a distance of at least 10 times their height.
3. They should not be closer than 2 to 3 times their height (75'-100' usually recommended) to buildings, yards, etc.
4. A shrub row with considerable foliage near the ground is almost a basic requirement for the outside row—except in heavy rainfall areas west of the Cascades.
5. Windbreak trees should have room enough to grow strong, well-formed crowns and maintain them well to the ground. The following schedule of spacing should be approximately as follows:
  - a. Low shrubs—Caragana—2'-3' apart
  - b. Tall shrubs or small trees when used as outside row—Russian olive, Chinese elm—6' apart
  - c. Small trees—Chinese elm, Russian olive—8' apart
  - d. Large trees—Black locust, Green ash—12'-18' apart

Evergreen species (in the non-forested portions of the state) usually are harder to start, may suffer heavy mortality during the first few years, grow more slowly at first, and may develop irregularly. It was observed in several plantations that Austrian pine made the better showing. The following guide to spacing is suggested:

- a. Where growing conditions are good, plant 6' apart and thin to 12' as soon as branches begin to touch. If you won't thin, space 12' apart.
  - b. Where growing conditions are more severe, either
    - (1) wait until outside shrub row and/or broadleaf tree rows are established and plant in their protection, or
    - (2) plant 2'-3' apart in row and gradually thin to approximately 12', using uniformity of growth and form as basis for thinning.
6. Number of rows: The trees in adjoining rows should be staggered to get maximum effect.
    - a. For dry-land farming areas: There is safety in numbers. If you have room use 5 rows consisting of 1 shrub, 2 broadleaf, and 2 evergreen rows. If less room is available use three rows—1 shrub, 1 broadleaf, and 1 evergreen.
    - b. For irrigated areas: Use a minimum of 2 rows—1 shrub and 1 broadleaf, 1 shrub and 1 evergreen, or two rows of evergreens. The use of a shrub row is recommended. For protecting field use 1 shrub row (preferably a taller shrub).
    - c. West of the Cascades: Use 1 to 3 rows of evergreens.
  7. Space between rows should be coordinated with cultivating equipment; use a minimum of 12' in any case, and where planting an evergreen next to a rapid growing broadleaf tree use a minimum of 18'. In the low rainfall areas a minimum of 18' and 27' respectively should be used.



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WINDBREAK AND SHELTERBELT PLANTINGS

Ship to:

Name.....Name.....

R. F. D. No.....Box No.....R. F. D. No.....Box No.....

City.....State.....City.....State.....

SHIPPING INSTRUCTIONS:

To Arrive by.....

Mo. .... Day .....

Rail Express.....Auto Freight.....Pick up at Nursery.....Parcel Post.....

Payment must accompany order. Make checks or money orders payable to the COMMISSIONER OF PUBLIC LANDS. Prices are F. O. B. Olympia. Express charges are paid for by the purchaser when shipment is received. Parcel Post shipments are accepted only at the discretion of the Nursery for orders of 500 trees or less and if shipment can be made to conform to postal regulations. Add 25% to value of order for prepaying parcel post charges.

Species	Quantity Ordered	Price Per Unit	Rabbit Repellent	Total Cost

Total Cost.....

Parcel Post if Applicable.....

Amount Enclosed.....

☐ Money Order      ☐ Cash      ☐ Check

\* Stock listed is not sold in lots of less than minimum quoted.

No Order Accepted for Less Than \$2.50 Value

C. O. D. ORDERS CANNOT BE ACCEPTED

Purchaser Must Fill in Spaces Below:

Distribution of trees from the State Department of Natural Resources Nurseries is made possible by state regulations that authorize sale of trees for *establishing forests, windbreaks, shelterbelts, or farm woodlots*. In consideration of these provisions, I agree that the trees shall be planted outside of corporate city limits, that their primary use will not be ornamental, and that they will not be resold with roots attached.

Signed.....

(Purchaser)

The trees will be planted in.....County, Sec.....

Twn.....Rge.....and will be used for windbreaks.....shelterbelt.....

farm woodlot.....

If the Nursery is out of species desired the following substitutions may be made:

.....

.....

Approved by.....

Name ..... Title ..... Agency .....

DETACH THIS PAGE AND ENCLOSE WITH PAYMENT

Our liability ceases when trees are delivered to carrier.















Orders for fall shipment accepted until November 15. Fall shipments made October 15-November 20. Orders for spring shipment accepted until March 15. Spring shipments made March 15-May 1. Shipping dates contingent on weather.

No flowers, fruit trees, or strictly ornamental shrubs or trees are available. Stock cannot be sold for planting in cities.

All stock is shipped bare-rooted and packed in moisture-retaining material. Stock is graded according to the Nursery's standards for species, age and type of stock. Grades are based upon use in farmstead windbreaks, field shelterbelts, farm woodlots, snowbreaks, and similar farm uses.

Determine the number of each kind of trees you need using the form below for windbreak plantings. For best results, it is suggested that you contact the nearest Department of Natural Resources farm forester, Extension Service, or Soil Conservation Service office. They will assist you in the planning and selection of nursery stock suitable for your purpose. If you use this assistance, please have the agency representative fill in the line at the bottom of the order blank on page three.

This image shows a blank, aged, cream-colored page, likely an endpaper or flyleaf from an old book. The paper has a slightly textured appearance with some minor discoloration and faint smudges, characteristic of old paper. The left edge of the page shows the binding of the book, with some visible stitching or glue. The overall tone is a warm, off-white or light beige.

### Indicate Location of Buildings

(Rows numbered from outside) Row No.	Length (ft.)	Species	Spacing	No. needed
1.....				
2.....				
3.....				
4.....				
5.....				

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 City..... State.....

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Mo. Day

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[illegible]

Total Cost.....

Parcel Post if Applicable

Amount Enclosed.....

☐ Money Order      ☐ Cash      ☐ Check

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(Purchaser)

The trees will be planted in \_\_\_\_\_ County, Sec. \_\_\_\_\_

Twn..... Rge..... and will be used for windbreaks..... shelterbelt.....  
farm woodlot.....

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Approved by \_\_\_\_\_

Name	Title	Agency
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