



# Evergreen Boughs: A Brief Introduction to Harvesting and Marketing from Small Private Forestlands in the Pacific Northwest

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## Overview

The Pacific Northwest supplies over 25 million pounds of evergreen boughs worldwide during each Christmas season. Much of this supply comes from high elevation public forests and large industrial private forestlands; however, small privately-owned forests also contribute to this supply. This report provides a brief introduction to evergreen boughs as a potential source of supplemental income for small forestland owners and harvesters.

## Bough Species and Characteristics

Evergreen boughs are commonly used during the Christmas season to make wreaths, swags, garlands, centerpieces, and other holiday decorations.



Christmas wreath using noble fir and juniper boughs. Photo by Flora Pacifica, Inc.

### Evergreen bough species from Pacific Northwest Forests

- Noble fir (*Abies procera*)
- Incense cedar (*Calocedrus decurrens*)
- English holly (*Ilex aquifolium*)
- Port Orford cedar (*Chamaecyparis lawsoniana*)
- Western white pine (*Pinus monticola*)
- Grand fir (*Abies grandis*)
- Subalpine fir (*Abies lasiocarpa*)
- Douglas fir (*Pseudotsuga menziesii*)
- Pacific silver fir (*Abies amabilis*)
- Lodgepole pine (*Pinus contorta*)
- Western juniper (*Juniperus occidentalis*)
- Ponderosa pine (*Pinus ponderosa*)
- Mountain hemlock (*Tsuga mertensiana*)
- Oregon Myrtle (California Bay) (*Umbellularia californica*)
- Western redcedar (*Thuja plicata*)

Noble fir (*Abies procera*) and incense cedar (*Calocedrus decurrens*) are the most common species marketed from the Pacific Northwest and receive the highest prices. Many other species are also harvested from Pacific Northwest forests and used in holiday decorations (see Box).

The most common source of boughs on small, private land comes from Christmas tree plantations where trees have grown too large or show some defect (e.g., lack of symmetry). Trees grown for timber production or naturally occurring trees can also be a potential source of boughs. Specific traits that wreath-makers and florists look for in boughs include branch symmetry; dark green/blue color; closely clumped secondary branches; flat, dense, non-overlapping, straight branches; at least four years of needle growth per branch; plants free from disease or needle loss; thin branches that are not too woody; and prior exposure to hard frosts (Schlosser and Blatner 2004)<sup>1</sup>.

## Production, Harvesting and Processing

Landowners can take advantage of existing trees with marketable boughs or plant new trees for bough production (as well as other uses such as timber or Christmas trees). Several guides have been published for Noble fir, and may be applicable to other species. For new Noble fir plantations, Landgren and Freed (1998)<sup>2</sup> recommend selecting seeds that produce high quality boughs, spacing between trees to allow for sufficient light and airflow to lower limbs and vehicle

<sup>1</sup> Schlosser, W. E. and K.A. Blatner. 2004. Pacific Northwest noble fir: The king of wreaths, charms and other Christmas ornaments. WSU Extension. <http://www.fs.fed.us/pnw/data/boughs/KingOfWreaths.pdf>

<sup>2</sup> Landgren, C. and J. Freed. 1998. Harvesting and marketing noble fir boughs from Christmas tree plantations. OSU Extension Service. <http://extension.oregonstate.edu/catalog/pdf/ec/ec1500.pdf>

access between rows, and planting low-growing cover crops (such as grasses and clover) between trees to control weeds. Pruning or shearing should be avoided to keep original branches intact. Nitrogen applications may be used to prevent yellowing of needles and encourage a deeper blue/green color.

Harvest boughs after exposure to hard frost, which puts the tree in a dormant state and allows the needles to remain on the branch through the holiday season. Harvests can start as early as October and continue through early December. Boughs should be cut 3-4 feet from the tip of a branch (above the node) to encourage regeneration. If the goal is to produce quality timber with few knotholes, cut the branch at the trunk. The typical final cut length for noble fir boughs is 24-30 inches, but may be longer if shoots are symmetrical and include smaller shoots. Other species such as Western redcedar used in garlands are generally cut longer (e.g., 3-4 feet). It is recommended that only 25% of the branches be cut to prevent stress on the tree, unless the whole tree is to be cut anyway. Stands can be harvested every 3-5 years. Once cut, boughs can be stored in loose piles in a refrigerator at 37°F or outside under a cool, dense tree canopy with good airflow. Boughs should be kept moist with periodic misting or sprinkling with water, but not so much as to encourage mold growth.



Investing in a wreath-making machine may add value to a bough operation.

## Marketing

The sale of boughs is a multimillion dollar industry in the Pacific Northwest. For small forestland owners, bough sales have shown to be a viable source of supplemental income and can cover the costs of other forest management activities such as planting and pre-commercial thinning. The first step to starting a bough operation is to inventory your trees to determine what species you have and if you have an existing crop or need to plant new trees. The ideal age for bough trees is 10-30 years old, although quality boughs may also be obtained from younger or older trees.

Once you have a sense of the species you have, start talking to potential buyers to see if there is an interest in your boughs. Bough buyers include wholesale and retail florists, nurseries, seasonal wreath-makers and intermediary buyers. Buyers generally like to see a sample of product from a new supplier. It is also important to understand exactly what the buyer wants in a bough—the type of cut, color, and any other preferences. Some may even be willing to come to your property and look at your trees to specify what they want. The best time to contact buyers is late summer/early fall, well before the Christmas season begins.

Prices for boughs will depend on the species, grade, volume and type of buyer. The table lists prices for Noble fir boughs in 2012. Marketing to end-use customers (e.g., selling wreath-making kits) can potentially increase the value ten-fold. Prices for value-added products, such as wreaths, swags, and garlands can be up to 100 times higher than the raw product, but will require additional costs of time, labor, supplies and marketing. Marketing through a co-operative (such as the Oregon Woodland Co-op) is one approach for small woodland owners who may not be able to offer large volumes individually.

Example Noble fir bough prices in 2012		
Form	Price/Unit	Source
Wholesale (delivered)	\$0.25-\$0.37/lb.	Wreathmaker
Wholesale florist	\$0.95-\$1.20/lb.	Wholesale Florist
Retail direct	\$3.00-10.00/lb.	Online store

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