

An aerial photograph of a Christmas tree farm in the Pacific Northwest. The foreground is filled with rows of young, green evergreen trees. In the middle ground, there are more rows of trees, some of which are slightly taller and more developed. The background shows a dense forest of mature evergreen trees on a hillside. The overall scene is a lush, green landscape dedicated to Christmas tree cultivation.

Christmas Trees

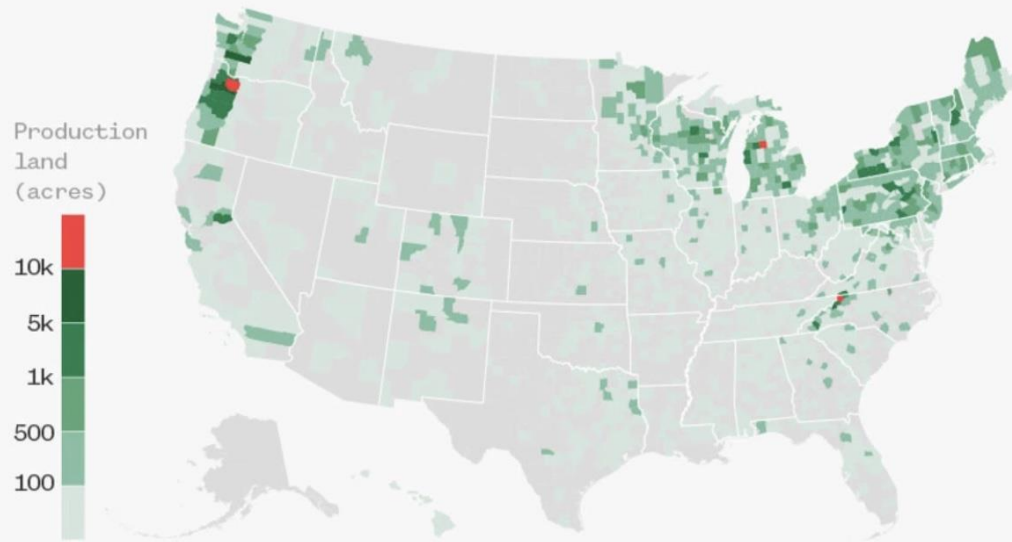
Christmas tree farm management in the Pacific North West (PNW)

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Regional Silviculture-4327

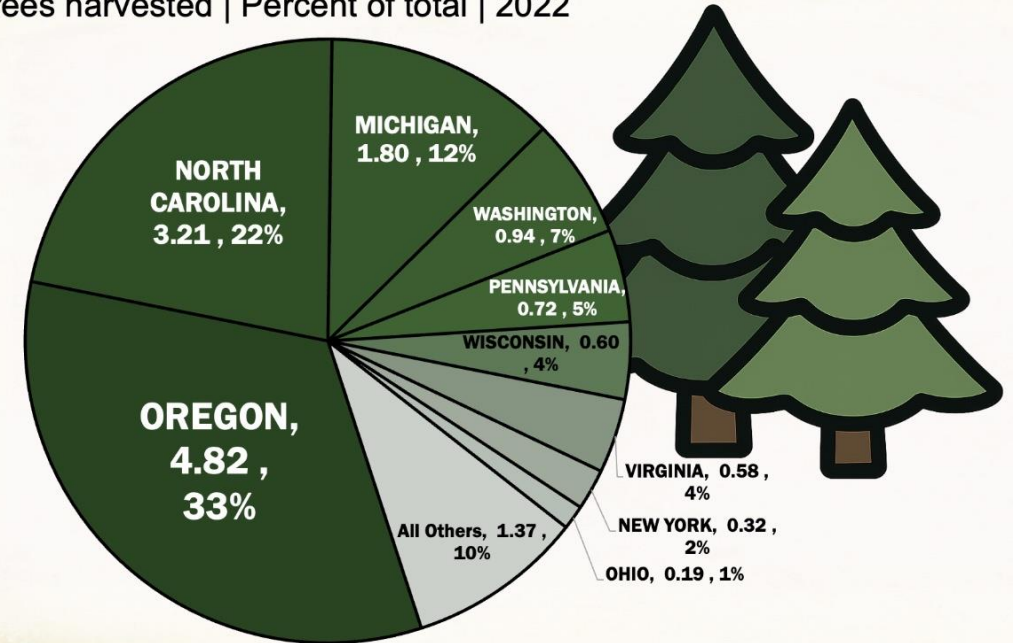
Christmas Tree Production in the US

Christmas tree farmland across the U.S.



CUT CHRISTMAS TREE PRODUCTION BY STATE

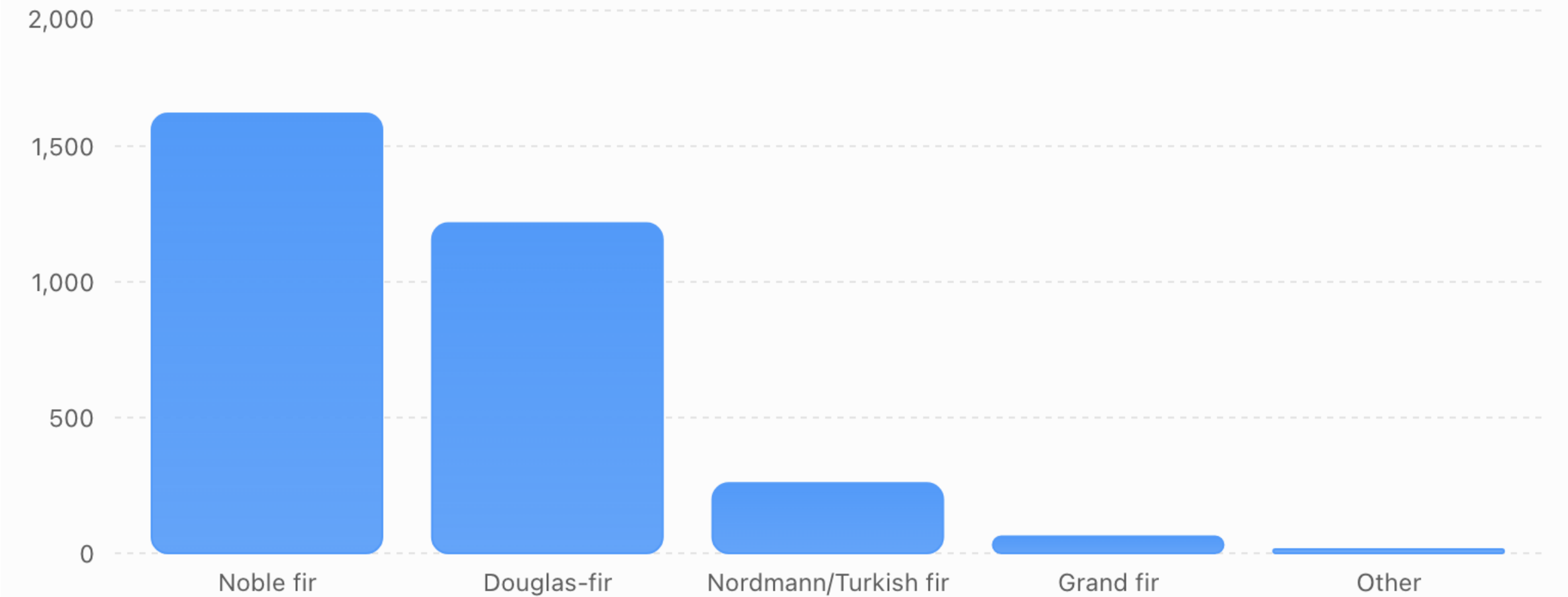
Million trees harvested | Percent of total | 2022



Oregon Christmas Trees Sold by Species, 2023



Number of trees sold (1,000 trees)



Source: USDA NASS, Oregon Christmas Tree Survey, 2023

Noble fir (*Abies procera*) ~54%

- **Pros**
 - Excellent needle retention post harvest
 - Strong, stiff branches for heavy ornaments
 - Attractive blue-green foliage
- **Cons**
 - Slower rotation: roughly 6–9 years
 - More site-sensitive, particularly at low elevations
 - Phytophthora root rot



usan McDougal

Douglas-fir (*Pseudotsuga menziesii*) ~32%

- **Pros**
- Short rotation: approximately 5–7 years
- Easy to establish and culture
- Adapted to a wide range of PNW sites
- **Cons**
- Needle retention
- Requires regular shearing to produce form
- Swiss needle cast



Grand fir (*Abies grandis*) ~5%

- **Pros**
 - Excellent fragrance
 - Dark, glossy green foliage
 - Rapid growth on good sites
- **Cons**
 - Generally poorer needle retention
 - Can grow too rapidly, requiring more shearing
 - Conifer aphids



Silviculture of a Christmas Tree Farm

Table 5 . Yearly Douglas-fir cultural guide

Tree age (years)	Tree height (average)	Leader length (average)	Taper (%)	Culturing goals/activities
1-2	1-2 ft	uncut	50	Establish single leader
3	3-5 ft	cut at 4.5 ft	50	Build structure/basal prune
4	5.5 ft	12 in	50-60	Build density
5	6.5 ft	8-12 in	60	Build density
6	7.5	8-12 in	60	Market shear/harvest
7	7.5-8 ft	8-12 in	60	Market shear/harvest

Establishment

- Site prep
 - Mow and Plow
- Planting
 - Typically bare-root
 - 5X5 spacing = 1,742
- Weed control
 - Banded release





Tree Culturing:

- Basal Pruning
- Leader Control
- Top Tying
- Shearing



Harvesting

- Whole Sale

- Large acreage
- High tree volume
- National distribution

- Choose and Cut

- Direct retail
- Smaller operations
- Higher value per tree



Year	Main costs that year	Income source	Cash cost	Gross income	Annual cash flow
1	Site preparation, seedlings, planting labor, herbicide, equipment, overhead	None	\$2,035	\$0	-\$2,035
2	Replacement trees, weed control, labor, equipment, overhead	None	\$403	\$0	-\$403
3	Shearing/basal pruning labor, weed control, equipment, overhead	None	\$1,148	\$0	-\$1,148
4	Shearing, fertilizer, insect/fungal/weed control, labor, equipment	None	\$1,207	\$0	-\$1,207
5	Shearing, fertilizer, pest control, tagging, cutting, baling, loading	150 Grade 1 trees/ac @ \$10.29/tree	\$1,899	\$1,544	-\$355
6	Heavy harvest costs, shearing, fertilizer, tagging, cutting, shagging, baling, loading	600 Grade 1 + 300 Grade 2 trees/ac	\$4,334	\$8,489	+\$4,155
7	Final harvest, fertilizer/pest control, cutting, shagging, baling, loading	200 Grade 1 + 100 Grade 2 trees/ac	\$1,674	\$2,830	+\$1,156
Rotation total	All establishment, management, and harvest costs	1,350 trees harvested/ac	\$12,702	\$12,863	+\$162

Pests & Damage:

- Phytophthora root rot
- Conifer aphids
- Swiss needle cast
- Browse



Christmas Trees as a Forest Product:

USDA 2022 Census of Agriculture — Oregon

Farms with acres in production	1,695
Acres in production	48,433 ac
Farms cutting trees	1,014
Trees cut	4,823,877
Sales	\$118,000,000

Pruning Video

<https://www.youtube.com/shorts/LTvn6UZWmE>

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- ChatGPT-5.6 Sol was used to brainstorm an outline, generate figures and find sources for this presentation.