

Poster Paper

Annosus Root Disease in Noble Fir Christmas Trees¹

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Annosus root disease (causal fungus = Heterobasidion annosum) caused mortality and discoloration of 6- to 8-year-old noble fir (Abies procera) Christmas trees at one location in northwestern Oregon. The plantation has been cropped continuously with noble fir for 30 years, with harvesting occurring as selective removal of individual trees. Infection apparently occurred through root wounds or from contacts with roots of stumps created during previous harvests.

Thirty percent of crop trees harvested in 1988 were infected (table 1). Lightly infected trees (less than 12 percent of stump surface discolored) were merchantable. Severely and moderately infected trees were not merchantable because of poor color.

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Many Christmas tree growers cut merchantable trees above the lowest whorl and train a remaining branch for a crop tree in the next rotation. This method of culture and the creation of stump during selection harvests may favor development of annosus root disease.

Table 1 -- Severity of annosus root disease in noble fir Christmas trees. Forest Grove, Washington County, Oregon. November 1988.

Crown Symptoms	Degree of infection	Stump surface discolored	Trees affected (N = 550)
		Pct	Pct
Visible	Severe	> 25	2.1
	Moderate	12-25	5.1
None	Light	1-12	23.5
	None	0	69.3

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