

## Fungicide Recommendations for Fraser Fir Seedbeds and Liner Beds

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**Table 7.8 - Diseases**

Disease	Fungicide	Rates	Comments
Botrytis blight	Daconil Zn, Echo 720 (chlorothalonil)	See label for rates.	Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7- to 14-day intervals as long as conditions favorable for disease persist.
	Spectro 90 WDG (chlorothalonil + thiophanate methyl)	See label for rates.	
Needle casts	Bordeaux mixture (copper sulfate + hydrated lime)	See label for rates. To make fresh Bordeaux mixture, mix 8.0 lb copper sulfate plus 8.0 lb hydrated lime in 100 gal water.	Spray to run-off when needles are one-half to fully developed in spring. Use at 2-week intervals during heavy rains.
	Echo 720 (chlorothalonil)	See label for rates.	Make first application in spring when new shoot growth is 0.5-2.0 inches in length. For nursery beds, apply the highest rate specified on a 3-week schedule until conditions no longer favor disease development.
	Spectro 90 WDG (chlorothalonil + thiophanate methyl)	See label for rates.	Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7- to 14-day intervals as long as conditions favorable for disease persist.
Phytophthora root rot	Alude (phosphonate)	See label for rates; used with specific application method.	Can apply as foliar spray, soil drench, or bare-root dip. <u>Foliar Spray:</u> Apply spray to thoroughly wet all foliage. Repeat applications at 14- to 21-day intervals as needed. <u>Soil drench:</u> Apply 1 gal of solution per sq yd. Follow application with irrigation. Apply at 14- to 21-day intervals as needed. <u>Bare Root Dip:</u> Dip transplants in solution for 2 minutes immediately before transplanting. Keep roots submerged and ensure root mass is thoroughly wet.
	Subdue GR <sup>1</sup> (mefenoxam)	Granular product; see comments section	<u>Seedbeds and Plug Plantings:</u> Uniformly apply 6.0 to 30.0 lb/A (2.2 to 11.0 oz/1000 sq ft) in the spring and again in the fall. <u>2-0 Transplants:</u> Uniformly apply 12.0 to 60.0 lb/A (4.4 to 22.0 oz/1000 sq ft) in the spring and again in the fall.

<sup>1</sup>Subdue products will only be effective when used in conjunction with good cultural practices; they will not overcome poor management practices, such as planting on sites with poor drainage. They will not revitalize trees with moderate to severe root rot.

## 7-8 Low-Management Crops and Areas: Seedbeds and Liner Beds

**Table 7.8 - Diseases (cont.)**

Disease	Fungicide	Rates	Comments
Phytophthora root rot (cont.)	Subdue WSP <sup>1</sup> (mefenoxam)	Do not apply as foliar spray. See comments for rates.	<u>Seedbeds and Plug Plantings:</u> Apply 15.0 oz/A (3 packets/A) in at least 50 gal of water in the spring and again in the fall. Follow with 0.5 to 1.0 inch of irrigation if rainfall is not expected within 24 hours. <u>2-0 Transplants:</u> Apply 15.0 to 30.0 oz/A (3 to 6 packets/A) in at least 50 gal of water in the spring and again in the fall. Follow with 0.5 to 1.0 inch of irrigation if rainfall is not expected within 24 hours.
	Subdue MAXX <sup>1</sup> (mefenoxam)	Do not apply as foliar spray. See comments for rates.	<u>Seedbeds and Plug Plantings:</u> Apply 1.25 pt/A in at least 50 gal of water in the spring and again in the fall. Follow with 0.5 to 1.0 inch of irrigation if rainfall is not expected within 24 hours. <u>2-0 Transplants:</u> Apply 2.50 oz/A in at least 50 gal of water in the spring and again in the fall. Follow with 0.5 to 1.0 inch of irrigation if rainfall is not expected within 24 hours.

<sup>1</sup>Subdue products will only be effective when used in conjunction with good cultural practices; they will not overcome poor management practices, such as planting on sites with poor drainage. They will not revitalize trees with moderate to severe root rot.