Forestry Canada Forêts Canada

PEST REPORT

Pacific and Yukon Region • Pacific Forestry Centre • 506 West Burnside Road • Victoria, B.C. • V8Z 1M5

FIDS Pest Report 93-7

July 1993

Pine Needle Cast

Lophodermella concolor

in the Kamloops Forest Region

H. P. Koot
Forest Insect and Disease Survey

Similar to 1992, lodgepole pine regeneration in planted and natural stands continues to be discolored by pine needle cast, caused by ***L. concolor*** over widespread areas throughout the host range in the Kamloops Region. Extensive areas of severe discoloration of year-old foliage is pronounced along the Bonaparte Hills, Tranquille and Thompson plateaus in Kamloops District, Wilbert Hills and Manning Park area in Merritt District, Barton Hills and Wilkinson-Stirling Creek-Big White area in Penticton District and Railroad Creek in Vernon District. Before the 1993 growth had fully flushed, up to 100% of foliage was discolored in some areas. It was not uncommon to find that previous needle loss had resulted in only 1992 needle retention which was also totally discolored. Generally, intensities of needle discoloration ranged from 20% to 100% on roadside regeneration, along fringes of mature stands and in immature natural and planted stands, many of which were recently spaced.

Localized areas of discolored trees having from 10%-60% red foliage were also noted in Merritt District near Glimpse and Chapperon lakes; Thynne Mountain-Brookmere and the Coqhihalla Connector summit areas; Darke Lake near Summerland in Penticton District; Upper Kettle River, Silver Hills and Silver Star in the Vernon District; Lillooet Forest District along Hurley River between Gwyneth Lake and Lone Goat Creek; and in Clearwater Forest District in the Otter Creek drainage and Blue River area. Discoloration in the North Thompson River Valley north of Clearwater was generally less pronounced than in 1992.

.../2

New infections occur on current - year needles in early summer by windborne and rain-splashed spores, with discoloration appearing the following year. Spread and successive invasion of the needles by the spores is greatly favored by moist conditions, therefore denser stands or those on north facing slopes are likely to have higher levels of infection. Repeated infections will lead to a "lion's tail" effect where only this year's foliage remains, thereby reducing tree vigor.

Increment losses can be expected in stands where chronic foliage loss due to successive years of infection has occurred. Tree mortality has occurred in the Railroad Creek area in the Vernon District, where trees have succumbed to repeated infections of pine needle cast in combination with branch infections by western gall rust, ***Endocronartium harknessii***.

* * * * * *