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FIDS REPORT 92-9

JULY 1992

PINE NEEDLE SCALE  
IN THE PACIFIC AND YUKON REGION

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Forest Insect and Disease Survey

Following the detection of pine needle scale, Chionaspis pinifol (Fitch), on balsam fir Christmas trees arriving in Bermuda from Nova Scotia, a review of records was requested. The information requested by Agriculture Canada, Animal and Health Directorate, is needed to develop pest risk assessment and certification scheme for the needle scale. This report summarizes information from Pacific and Yukon Region.

A listing of 236 samples collected in British Columbia since the late 1940s, was generated from the national FIDS Infobase. This determined that the pine needle scale has been collected on eight species of pines rarely on other conifers.

Most of the collections were from the southern interior in the Kamloops (36%) and Nelson (33%) forest regions, and southwestern B.C. in the Vancouver Forest Region, (20%). None were collected in the Yukon Territory.

About 84% of the collections were from pines; almost half (48%) those from lodgepole pine, Pinus contorta, and 40% from ponderosa pine, ponderosa, with the balance from ornamental plantings (Table). Only six collections (0.025% of the total), were on grand fir, Abies grandis. The majority (77%) were collected from 1950 to the 1970s.

The preferred host in British Columbia is ponderosa pine, but it also has been collected on lodgepole pine and non-native pines including mugho pine, P. mugo var. mughus, red pine, P. resinosa, and Austrian pine P. nigra. In more than fifty years of collecting, pine needle scale was only occasionally observed on other trees including Douglas-fir, Pseudotsuga menziesii, spruce, Picea spp., and western hemlock, Tsuga heterophylla.

The pine needle scale is native to British Columbia and found throughout the United States and in northern Mexico. In British Columbia it is most common in the dry southern and southeastern interior, but has been recorded on Vancouver Island and north of Terrace in the Nass River Valley. It was epidemic on ponderosa pine in the Okanagan and lower Nicola valleys sporadically from 1946 to 1971, and was collected less frequently at reduced levels until the present.

Number of Collections in FIDS Infobase of Pine Needle Scale,  
Chionaspis pinifoliae, in the Pacific and Yukon Region,  
1949-1992, by Host and Geographic Region

HOSTS	REGIONS						TOTAL
	C	K	N	PG	PR	V	
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Pines:							
Lodgepole	-	14	45	5	15	16	95
Ponderosa		62	15			3	80
White		2	2			4	8
Shore						7	7
Mugho						2	2
Red						2	2
Austrian		1					1
Scots						1	1
Other spp.			1			2	3
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Pines	-	79	63	5	15	37	199
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Other:							
D-fir	1	7	9			4	21
Spruce			4	1	1	1	7
Grand fir			1			5	6
Hemlock						3	3
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TOTAL - All spp.	1	86	77	6	16	50	23
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