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PRESENT STATUS OF THE WHITE PINE BLISTER RUST IN THE PACIFIC NORTHWEST.

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In the Pacific Northwest the white pine blister rust has made rapid progress in its spread from Vancouver, British Columbia, where it was first introduced in 1910, to points in Washington, Oregon and southeastern British Columbia, where it now menaces on one hand the valuable stands of sugar pine and on the other the vast white pine belt of the Inland Empire.

In the fall of 1925 the rust was found on white pines in British Columbia within a few miles of the northern boundary of Idaho. It is quite possible that the rust has already become established in northern Idaho, but remains to be discovered. At all events it is quite an easy matter for the rust to spread into northern Idaho from the infected pines across the border. Indications point to a spread of 150 miles from the infected pines to cultivated black currants. Fortunately the spread from infected gooseberries and currants to pines is usually not more than 300 yards. This fact encourages the attempt to control the disease by the eradication of the most susceptible currant and gooseberry bushes within the white pine stands and for 300 yards around them.

Since the discovery of blister rust in the West in 1921, Federal, State, and private agencies have cooperated to prevent its spread and secure its control. A general program of considerable magnitude has been formulated and is being carried out. In brief, this program consists of two phases, (1) emergency measures to prevent the rapid spread of the disease, and (2) experimental work to devise control measures suitable to western forest conditions.

The emergency program consists of the eradication of the cultivated black currant, and the enforcement of State and Federal blister rust quarantines.

The cultivated black currant is a common garden plant in the Northwest and constitutes a serious menace in the spread of the blister rust. This currant is far more susceptible to the disease than any other currant or gooseberry and is capable of contracting the disease at considerable distances from infected pines.

During the time the blister rust program has been in operation over 8,910 plantings representing about 126,000 bushes of cultivated black currants have been eradicated in the Northwest region. Over 1,100 plantings totaling about 6,950 bushes have been removed in Idaho during this period. There still remains a season's eradication work in the Idaho region and the State Commissioner of Agriculture is actively directing this work in the several counties of southern Idaho where black currants are yet to be found.

Quarantine measures have been passed by the states of Idaho and Oregon making it unlawful to possess, propagate or sell cultivated black currants within the respective states. Such measures are effective aids in preventing the spread of this disease and both State and Federal quarantine

officials are working together to prevent the shipment of plants from infected into uninfected areas. So far 12 violations of Federal quarantines have been recorded and 11 violations of State quarantines have been noted.

The experimental work on methods of local control is conducted by the office of Blister Rust Control, U.S. Department of Agriculture from the western field office located at Spokane, Washington. Experimental eradication of wild currants and gooseberries in the forests of northern Idaho was continued in the 1925 field season during which 4,260 acres of forest land were cleared of wild currants and gooseberries. This area had an average of 86 bushes per acre. Work of a similar nature was also conducted in southern Oregon where 1,874 acres of land were worked. Studies are also being made on the practicability of using chemicals in the eradication work. Field studies on the ecology of the currants and gooseberries found in the white pine stands are yielding valuable information, and are to be continued this season.

Investigational work on the life history of the rust, the relative ease with which the various currants and gooseberries may become infected and their relative rating as spreading agents is being carried out by the Portland Branch of the Office of Forest Pathology, Bureau of Plant Industry. Much of this work is being conducted in heavily infected regions such as the areas in western British Columbia.

At a special meeting of the Western White Pine Blister Rust Conference recently held at Portland Oregon, needed changes in the ten year program were considered. This situation was brought about through the rapid and unexpected spread of the disease southward into Oregon where it threatens the sugar pine stands of Oregon and California. The rust is within 170 miles of the sugar pines and call for a defense of this new battle front. Various recommendations were passed at this meeting covering the needed changes in the ten year program and among these was stressed the need for a study of the future yield and value of present stands of white pine reproduction which lie in the path of the disease. In order to make local control effective and in many cases possible it is necessary that the owner balance the future value of these reproductive stands against the cost of local control. It must be known at least approximately whether or not a young stand will prove of sufficient value 50 or 75 years from now to warrant the yearly cost of protection against the blister rust.

The University of Idaho thru its School of Forestry is cooperating with State and Federal officials in an effort to protect Idaho's most valuable tree, the Western White Pine. The school is cooperating with the office of Blister Rust Control in carrying out control reconnaissance work in northern Idaho during the summer months, and will also aid in certain studies of local control methods. An attempt is being made by the School of Forestry to determine the value of the five needle pines of high elevations as water shed coverings. These pines, commonly known as stone pines, have little commercial value and grow on rugged summits near the timber line where they help to cover and protect the very sources of our principal streams. Should the blister rust sweep thru these timber-line pines and destroy them little protection would be afforded the watersheds they once shaded, and streamflow water supply and irrigation would perhaps reflect the irreparable damage that was done.