

UNIVERSITY OF IDAHO  
AGRICULTURAL EXPERIMENT STATION  
DEPARTMENT OF PLANT PATHOLOGY

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Western X Disease  
of  
Peaches In Idaho

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Survey and Eradication Program by  
Idaho Agricultural Experiment Station  
and State Department of Agriculture

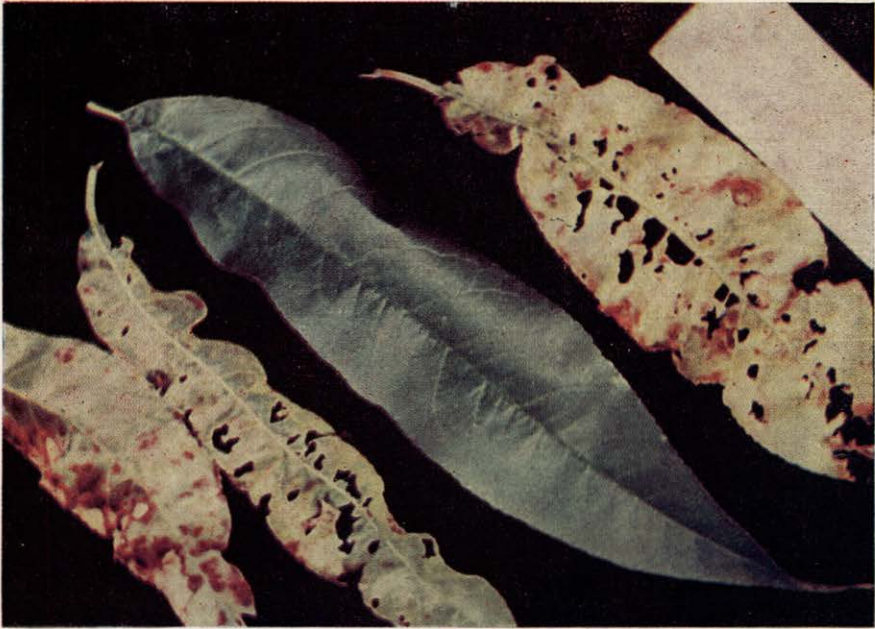
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## Western X Disease of Peaches In Idaho

A number of virus diseases attack Idaho's stone fruits. Recognition and control of these diseases is becoming imperative if they are to be checked before they become even more serious than they are at present. Of all our stone fruit virus diseases, the Western X disease of peaches is the most wide spread and most destructive. First reported by Blodgett in 1936, Western X is now known to occur in all Idaho peach producing areas. Preliminary surveys indicate that it is present in Canyon, Gem, Latah, Nez Perce, Payette, Washington, Adams and Twin Falls counties. It is known to occur in Washington, British Columbia, Oregon, Utah and Colorado.

In eastern states a disease similar to Western X occurs. It may or may not be caused by the same virus. Investigations in the east shows that the X disease on peaches is caused by the same virus as a red leaf disease of wild choke cherries, and this same association has been established in Utah and Oregon. Although a disease on wild choke cherries with somewhat similar symptoms occurs in Idaho, it does not seem to be associated with the Western X on peaches. Blodgett's preliminary efforts to transmit this disease from choke cherries to peaches have failed.



### HOW TO RECOGNIZE WESTERN X

The symptoms of Western X are most apparent after midsummer. Foliage on affected trees or on individual branches of affected trees develop a greenish-yellow color, and irregular, "water soaked" areas, and purple to reddish spots develop on the leaves. These spots die and drop out leaving ragged margins and irregular holes in the leaves. Complete defoliation and death of branch tips may follow later in the season. Some of the fruit on affected branches drops early, and the remaining fruit is commonly misshapen and shriveled near the apex. It may be bitter to the taste. Trees do not recover although affected branches may be removed. Peach trees become gradually weakened by the disease and in 3 to 4 years may no longer produce any marketable fruit.

Certain other conditions may cause peach trees to show symptoms similar to those produced by the Western X virus. Two of these are arsenical injury and nitrogen deficiency. Arsenical injury produces brown to red spots along the margins and between the veins of older leaves. The centers of these spots may drop out causing the leaves to show a shot-hole appearance. In severe cases, defoliations may result, and the fruits may be smaller than normal but are not deformed and hang on the tree to about normal ripening time. The leaf condition differs from symptoms produced by the Western X virus in that the dead areas are limited to the leaf margins or to small circular areas between the leaf veins.

Nitrogen deficiency in peach trees produces a purple spotting between the leaf veins. In very severe cases these spots may drop out. This deficiency differs from Western X symptoms in that the spots are smaller and limited to the areas between the leaf veins.

### REMOVAL ONLY KNOWN MEANS OF CONTROL

As in the case with the little cherry disease, the only known means of control is removal of affected trees. The Idaho State Horticultural Society, at their annual meeting in February, 1949, passed a resolution recommending a survey for little cherry and Western X and suggested a voluntary removal program of all affected trees. Research workers are agreed that such a program by individual growers would be the best means of controlling these two serious virus diseases of stone fruits.

### SURVEY IN 1949

In Oregon and Utah, tests have shown that the same virus causes Western X disease on peach and the little cherry disease on cherry. Because of this, a survey of Idaho peach orchards for the Western X disease was made in conjunction with the 1948 little cherry survey. This was a preliminary survey limited to areas where the little cherry disease had been found and to spot checks in some other areas. A total of 29,376 peach trees were surveyed on 75 properties. Of these, 56 properties had trees showing Western X symptoms. Out of the total surveyed, 1664 peach trees were infected with the Western X disease. Infection was found in Canyon, Gem, Latah, Nez Perce, Payette and Washington counties. In previous years, the disease was reported in Adams and Twin Fall counties. No infection was found in the limited peach growing areas north of Latah county.

Previous reports and surveys have indicated the general serious nature of Western X disease and we know that the disease is widely distributed in Idaho. Although it will not be possible to inspect all peach trees in the state, the Idaho Agricultural Experiment Station and the State Department of Agriculture will make a cross section survey of the peach orchards in 1949. More detailed information regarding the survey in your locality may be secured from the local County Agricultural Agent or Horticultural Inspector. Cooperation on the part of growers is essential to the program's success. Only immediate removal of diseased trees can halt spread of the disease.