

of complaints of a disease of white pine in the Northern States has been received by the United States Department of Agriculture. This disease attacks the needles and is commonly limited to the youngest ones, while the two-year-old needles are more or less immune to the trouble. The affected needles commonly turn reddish brown at the tips, and the browning may progress backward to the base of the leaf, entirely killing it, or it may kill but a portion of the leaf, leaving the basal part alive and green. In the early stages of disease only the youngest needles are affected, these being partially browned. In the last stages the two-year-old needles have dropped prematurely, and the new leaves are shorter than normal ones. The tree gets weaker and weaker until it finally dies outright. There are indications, however, that some of the affected trees recover. A tree having most of its young needles attacked presents a brown appearance throughout, although the older needles may still be green and healthy. This is because the one-year-old needles are on the new growth at the tips of the twigs, where they hide the two-year-old leaves behind them unless one is standing directly beneath the tree and looking up at the branches.

This disease seems to be assuming more and more threatening proportions and is causing alarm among timber owners where it occurs. It seems to occur more or less locally, and its distribution is very imperfectly known. In order to obtain some definite data concerning the more important facts of its occurrence, spread, etc., the present circular has been prepared and distributed. Your active assistance is asked in answering the following questions. Also, if the disease is in your locality, *enclose specimens of affected twigs.*

1. Does the disease occur in your locality?
2. How plentiful is it?
3. How long have you known it?
4. Does it affect more trees now than when you first noted it?
5. Do affected trees ever recover?
6. At what date in the season have you first noted it?
7. Does it seem to cause the two-year-old needles to fall?
8. Are old trees affected more than young ones?
9. Are trees affected worse in open than in close stands?
10. Do the affected trees occur in bunches, or are they scattered among the healthy ones?
11. How long may a tree be affected before it dies?
12. Does the disease appear on the upper branches and leader before it does on the lowest branches?
13. What month do the trees die?
14. Has any fire been over the diseased area during the past four years?
15. General remarks.

(SIGNED) HAVEN METCALF,
U.S. Bureau of Plant Industry,
Washington, D.C.

Printed forms covering all the above questions may be obtained on application to Mr. Metcalf.