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## Brief Information on

## PINE LEAF SCALE and ITS CONTROL.

**Evidence of Infestation.**

Leaves of conifers, especially pine needles, are frequently found turning yellow and, on closer examination, white, comma-shaped bodies will be observed upon them. These bodies are the waxy covering of soft bodied insects, which by means of long thread like beaks, suck the sap of the leaves, causing them to fade.

**Seasonal History and Habits.**

This insect hibernates in the egg stage, 20-27 being found under each female scale. The broader, smooth scale is that of the female, that of the male being narrow, longitudinally ribbed and with parallel sides. The eggs hatch, in the vicinity of Washington, D.C., about the middle of May. After hatching, the young crawl about for 2 or 3 days until they find a suitable place, usually on new needles, and settle. Where they settle they insert their beaks into the leaf tissue and the females remain fixed on that spot the rest of their lives. Depending on the altitude and latitude of a locality, two or three generations are produced annually. For migration from tree to tree, the tiny, young insects are evidently dependent entirely on other insects, birds, etc. which carry the young larvae on their feet or bodies as they travel from infested to uninfested trees, or they may be carried by the wind. Transportation can only occur during the 2 or 3 days that they are not attached.

**Natural Control.**

While they are usually kept in check by their natural enemies, especially by parasitic insects, they occasionally become sufficiently numerous to affect the vitality of a tree, though they rarely kill an otherwise healthy tree. The application of remedies under such circumstances may, therefore, become a necessity.

Remedies are given in the accompanying Brief on Scale Insect Remedies.

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