DEPARTMENT OF FORESTRY · CANADA

Timber Talks

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WORMS IN PINE CONES

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Sound forest management implies that after forests are logged or burned the area be quickly re-stocked with commercially important species. Whether the re-stocking be accomplished naturally or artificially by planting or seeding, an abundant supply of seed is required. Although good seed crops of ponderosa pine can be expected every 2-4 years in British Columbia, as much as 50 per cent of the crop can be destroyed by the pine coneworm.

The presence of this seed-destroying worm is not easy to detect. Slicing the green cone will reveal feeding damage in the seed and scales. A large number of insects in the cone axis during September to April indicates the likelihood of heavy infestation in the new crop. When the cones are mature, larvae can be observed in the cone axis and when they are open, damaged scales and seeds will be evident.

Moths, that usually emerge around mid-May, deposit eggs in clusters or singly on cone scales near the base of second-year cones. Hatching occurs about 10 days later and the young larvae tunnel between two scales near the apical part of a cone. Tunnelling continues toward the centre of the cone and into a seed for feeding on the endosperm. After feeding is completed in one seed, an exit-hole is made and the larva enters a second seed. Eventually all larvae become established in the cone axis where, after extensive feeding, cocoons are spun for protection of the larvae throughout the winter. Pupation and emergence of moths may occur the following spring or be delayed one or two years.

Although seed loss may be heavy, there is probably sufficient for natural regeneration. The need for a more copious supply of seed for artificial regeneration would likely necessitate more effective measures of control, but at present such methods have not been developed.

REPORT: The Pine Seedworm, Laspeyresia piperane (Kearfott) (Lepidoptera Olethreutidae), in Cones of Ponderosa Pine. A. F. Hedlin, Forest Research Laboratory, Victoria, B. C.