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BRIEF INFORMATION ON INSECT DAMAGE TO GREEN GUM LOGS AND LUMBER
IN THE SOUTHERN ATLANTIC AND GULF STATES AND
SUGGESTIONS RELATING TO ITS PREVENTION.Character and Extent of Damage.

The principal damage to southern hardwoods is due primarily to attack by tiny wood-boring insects known as pinhole borers or ambrosia beetles, which make holes in the wood not much larger than the head of a pin. They bore holes or burrows in the wood for the purpose of rearing their young. The beetles are attracted to freshly cut trees, logs and lumber only when in a green or moist condition, because moisture is necessary for the growth of a so-called ambrosia fungus on the walls of the pinhole burrows on which the beetles and their young live. Therefore, any agency, or combination of them, which retards drying, such as leaving the green logs in moist, shaded places in the woods or placing freshly sawed lumber in close piles during the period of insect activity, will offer favorable conditions for insect attack. Under such conditions logs and lumber may be severely damaged in a few days time and in a few weeks reduced in value nearly 50 per cent.

Remedy.

Damage to infested logs and lumber can be checked, where practical, by submerging in water or saturating with a liberal solution of liquid orthodichlorobenzene.

Prevention.

The most practical way of protecting green gum logs and lumber from insect injury is to make such slight changes in the methods of management in the woods, in the storing of logs in the mill yard or lumber yard, as is necessary to produce unfavorable conditions for these insects. Such procedure is necessary since they are active from February 15 to November 1, causing the most serious damage during warm, damp days of the summer. Occasionally they will appear during mild days of an open winter.

Protection of green logs during the period of insect activity.When prepared for floating -

(a) Peeling method - to be used during the spring and summer months while the sap is up (April 1 to August 15):

(1) The cutting and peeling operations should be commenced as soon as the conditions of the swamps are favorable after the gum leaves are full grown.

(2) The logs should be peeled as soon as cut and their ends pulled apart to aid in rapid drying.

(3) The underbrush should be removed as the trees are felled, to admit sunlight.

(4) Logs not taken at once to the river bank should be removed from low, damp places until hauling is possible.

(5) Trees producing excessive shade on the river bank, where the logs are to be placed, should be removed.

(6) Cutting saplings or poles and placing them upon the bank to keep the gum logs from the ground, as is the common practice, will facilitate drying, and is also a good procedure to prevent insect damage.

The value of the above procedure lies in the facilities for rapid drying of the sapwood.

(b) Where not prepared by peeling - to be used during the summer and early fall months after the sap has started down and until the leaves turn (August 15 to October 15):

(1) Fell trees and leave tops on until the foliage dries (this aids rapid seasoning by drawing the sap quickly to the top of the tree), then log tree in the usual way.

When not prepared for floating -

(a) Rapid utilization (February 15 to November 1):

(1) Provide for as little delay as possible between the felling of the green timber and its utilization for lumber or submergence in water.

(2) Remove logs from the woods as soon as cut, and transport to a place of safety.

Protection of green logs during the period the insects are least active (November 1 to February 15).

(a) Logs felled from late fall to the early spring months should be removed from the woods before the first flight of the beetles in the spring and either utilized at once for lumber or submerged in water.

(b) Logs submerged in water for several months that must be removed during the summer should be sawed as soon as possible after being taken from the water.

(c) When not possible to provide a millpond in which to store logs until utilized for lumber or to saw them as soon as they arrive at the mill, and they must remain in the yard until sawed, the following procedure is recommended.

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(1) Arrange a system of skids in mill yard so logs can be unloaded directly from cars or truck to skids.

(2) Do not pile logs more than two deep.

(3) Leave space between piles to allow logs to receive the maximum amount of sunlight and ventilation.

(4) As far as possible, avoid big stacks of logs in the yard waiting to be loaded on cars and taken to mill to be sawed.

Protection of green lumber.

Moist green lumber sawed during the summer months should be kiln-dried when possible; otherwise observe the following procedure:

(1) Rack lumber 7 to 10 days before piling during the summer.

(2) Cross-rack lumber during the spring and fall to aid rapid drying.

(3) Pile lumber with flue in center to aid rapid seasoning. (Care must be taken that it does not check by drying too fast.)

(4) Cut heavy dimension stuff, as far as possible, during the fall and winter months.

(5) End-pile lumber during the winter, if necessary, to hasten drying.

(6) Unless the trade requires it, avoid leaving bark on the edges of lumber sawed from green logs.

(7) Lumber yards located on flat, low, damp areas, where the water stands after heavy rains, should be drained by a system of trenches.

R. A. St. George,

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