A Science Service Feature

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? WHY THE WEATHER ? Mailed February 8, 1932

By Charles Fitzhugh Talman,
Authority on Meteorology.

METEOROLOGY VS. INSECTS

In his recent work "Insects and Climate" B. P. Uvarov mentions several cases in which insect pests have been combated by changing the climatic conditions under which the insects lived. Thus the fact that tsetse flies are very sensitive to air humidity suggested the idea of controlling their distribution by clearing infested forests so as to create conditions of temperature and evaporation unfavorable to this pest. This method is now being studied in all its aspects by the recently established Tsetse Research Department in Tanganyika Territory.

"Essentially the same principle," says this writer, "applies to the prevention of injury by borers in forests. For example, the injury by the white pine weevil is invariably greater in open pure stands of white pine growing in full sunlight. In mixed stands, where hardwoods shade the pine, the injury is much less and decreases inversely with the intensity of shade until it reaches the zero point under a shade corresponding to that cast by an average stand of oak or maple. It is recommended, therefore, that white pine should be grown under a shelter-wood system that will provide a light shade for the young trees."

One authority, he says, reports that the development of bark beetles has been checked by making their environment moister than usual. This is effected by partial defoliation of the trees, which diminishes their loss of water by the process of transpiration. With more knowledge regarding the climates of insect habitats, says Uvarov, methods of controlling insects by altering their immediate climatic environments will be still further developed.

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