Virus Diseases and Moth Populations Studied at New England Tree Meeting

By TERRY STOCK

Subjects ranging from pesticide usage, and numerical trends of gypsy moth populations to virus diseases of ornamental trees attracted over 700 delegates to the annual Tree Wardens, Arborists, and Utilities Conference at the University of Massachusetts, Amherst, March 16-20.

Highlights of the program included a speech by Dr. Johnson Parker, physiologist at the Bartlett Tree Research Laboratories in Stamford, Conn., on "Noninfectious Diseases of Shade Trees."

These various physiological disorders, he said, are climate disorders—disorders brought on by soil problems, and those problems induced by atmospheric disturbances such as air pollution.

Assails Air Pollution

Contributing to air pollution, Parker said, are noxious vapors from exhausts of automobiles and trucks, organic compounds present in smog, and fumes from industrial sites. The nitric oxides from exhausts, Parker explained, give rise to ozone in the presence of sunlight and oxygen, and excess ozone causes leaf damage.

According to Dr. Parker, air pollution is the latest in a series of increasingly numerous physiological disorders, or noninfectious diseases, that are troubling trees in urban and suburban communities. These disorders account for fully 50% of all tree ailments, he noted.

"Policies of the Moth Superintendent's Duties," was the title of a speech delivered by Charles S. Hood, chief superintendent of the Bureau of Insect Pest Control of the Massachusetts Department of Natural Resources, Boston, during the weeklong program.

"There is a vast difference between the duties of the local superintendent and those of the tree warden. The tree warden's duties include very little if any pest control work, and he is an elected official, while the moth superintendent is appointed."

Hood further stressed that the duties of the Bureau of Insect Control are governed by policy based on reason as opposed to specific recommendation, and that common sense plays a large part in formulating policy.

It is the job of the Bureau to help rid the communities of diseased trees, but suggestions in method vary with the situation. The final decision is usually left up to the individual community.

For example, Hood said, "DDT or methoxychlor work equally well as dormant sprays against elm bark beetles. DDT is the cheaper of the two, but the community may prefer to spend more money and use the insecticide less toxic to other forms of life—namely Methoxychlor."

Speaking on "Some Trends in Municipal Government and Administration," Dr. Robert A. Shanley, assistant director of the Bureau of Government Research at the University of Masschusetts, said, "American municipal government has been shaken to its roots by galloping urbanization over the past 20 years."

Shanley explained that trends have shown a preference for consolidating parks and recreation into one department rather than having separate departments.

"One trend of particular concern in Massachusetts," he noted, "is the loss of existing city park land. In Boston, for example, park land has been dwindling at an estimated rate of 5% per year, and 412 park land acres were transferred from 1952-1962.

"It is difficult to retain existing park and recreation acreage and to secure adequate recreation space for future urban needs," he concluded. "Federal encouragement through soundly administered urban renewal programs can do much to redress park attrition."

In his speech, "Shade Tree Pest Control for 1964," Clifford S. Chater of the Shade Tree Laboratory, Waltham Field Station at the University of Massachusetts, presented information about the most common pests which attack trees and the methods being used to control them. The birch leaf miner and the elm leaf beetle may be controlled by the application of carbaryl (Union Carbide's Sevin), but the application must be precise, he warned. This chemical may also be used to control fall cankerworms, as may DDT and methoxychlor; however, the larger the worms become, the more difficult they are to kill.

"Salt Injury to Roadside Trees" was the topic presented by Avery E. Rich, pathologist from the University of New Hampshire. He told of a recent study on 550 maples along U.S. Highway 4 in Northwood.

"The study significantly showed," he said, "that there was an inverse relationship between distance from the road and salt injury symptoms." The results of this and other experiments indicate that "salt plays an important role in maple decline in New Hampshire. Most of the injury occurs to trees within 30 feet of the edge of the pavement."

Richard E. Abbott, arborist with the Central Hudson Gas and Electric Corp. of Poughkeepsie, N.Y., said, "Trees are a major cause of interruptions to electric service, particularly during storms when falling trees and branches may account for upwards of 90% of the interruptions to electric service. Therefore, the primary functions and duties of a utility arborist should contribute to an improvement of electric service continuity."

The conference was sponsored by the Massachusetts Tree Wardens' and Foresters' Association in cooperation with the Electric Council of New England, the Massachusetts Arborists Association, the New England Telephone & Telegraph Co., and the University of Massachusetts Departments of Entomology and Plant Pathology.