Pruning, Beetles, Pesticide Safety Are Topics at Minn. Tree Maintenance Course

By JOSEPHINE B. NELSON

"The benefits of pesticides to man have far outweighed the small risk taken by their use," Neil Miles, extension horticulturist at the University of Minnesota, told 147 men attending the annual Shade Tree Maintenance Short Course on the University's St. Paul Campus, Sept. 20-21.

Delegates to the two-day meeting were also treated to a comprehensive discourse on that important phase of tree care involving pruning by Dr. L. Snyder, head of Minnesota U.'s Department of Horticultural Science. Entomology department head, Dr. A. C. Hodson told why some trees are more susceptible than others to insects.

Miles defined pesticide safety as "the wise and judicious use of fungicides and insecticides. It requires an intimate knowledge of both host and parasite and an awareness of the ramifications of the procedures used to control the pest. It requires common sense—common sense on when and how to apply pesticides and when and how not to apply them. Furthermore," said Miles, "it requires an understanding that pesticides are poisons; they are to be feared and respected as all poisons should be. But it is further understood that these poisons can be used in such a manner that they are not dangerous." In conclusion, he challenged the group to plan a pest control program that is "flexible to move in when needed and restrained when no practical use can be foreseen."

Conifers Less Tolerant

Ways of detecting and evaluating insect damage and need for control of common insects of shade trees were stressed by Dr. A. C. Hodson. Conifers, he pointed out, have much less ability to withstand defoliation than broad-leaved trees. Once a conifer has been completely defoliated by insects, the tree is dead. Deciduous trees, on the other hand, can tolerate two or three years of complete defoliation by insects without dying. Although they will show some injury, they will put out a new set of leaves within about three weeks.

Hodson outlined three major ways shade trees can be injured by insects:

1. By leaf-chewing insects such as caterpillars which defoliate trees.

2. By sap-sucking insects such as aphids and scale insects. Symptoms of such injury include spotting and mottling of leaves, leaf curling or distortion, and some galls. Galls disfigure the foliage but otherwise have little effect on the health of the tree.

3. By boring insects, like bark beetles, which feed just under the bark, and by other borers which go deeper into the wood.

Dying Trees More Susceptible

Actually, bark beetles are secondary rather than primary pests, Hodson explained. The tree was already unthrifty and dying *before* the bark beetles arrived, *not because* they were there. The elm bark beetles, which spread the fungus that causes Dutch elm disease, breed in dead and dying trees.

Pruning Tips

In his discussion on pruning, Dr. L. C. Snyder underscored the importance of understanding the growth habits of a tree in order to prune properly. Among suggestions for proper pruning he listed: making cuts close to the stem to facilitate healing, shaping the cut to facilitate healing, pruning at the right time of the year for each species, using wound dressings on all branches over 2 inches in diameter, and using correct tools. Above all, understand the growth habits of the tree.

Why prune? Snyder mentioned improvement of the

Treemen for parks, and public or private grounds attended the fact-filled conference. Here, at left, Dan Neller, Alexandria, Minn. Telephone Co. registers as Neil Miles and C. G. Hard, right, both extension horticulturists at University of Minnesota, look on. Debbie Grendahl of the Dept. of Agricultural Short Courses supervised registration of nearly 150 delegates.

health and appearance of trees, and safety.

The health of trees, he said, can be improved by (1) removing dead or decaying branches, thus preventing the entry of disease organisms into main branches or the stem; (2) thinning the crown to permit light and air circulation; (3) removing branches that cross and rub each other; and (4) removing branch stubs to prevent decay.

Consider the natural form of the tree in pruning to improve appearance, Snyder advised, since the natural form is the tree's most beautiful form. Except in formal plantings, avoid shaping by shearing, he suggested. For more symmetrical conifers, remove double leaders.

To improve safety conditions, it is important to remove broken or weak branches that might fall and endanger life, to remove branches that interfere with vision at street intersections, and to remove lower branches that interfere with traffic.

While removal of dead wood is one aspect of pruning that is concerned with both the health and the appearance of shade trees, don't be content with merely cutting off the offending branches. Determine the cause of dead wood and correct the cause if possible, Snyder urged. He listed these major causes of dead wood in shade trees: improper nutrition, soil compaction, fill around the tree, injury to the root by construction, uncontrolled insect or disease injury.

Other speakers included Hugh Thompson, associate professor of entomology at Kansas State University; Bob Wright, Bachman's, Minneapolis; and University of Minnesota professors D. B. White and H. G. Johnson.

The annual Shade Tree Maintenance Short Course is an annual event on the University of Minnesota's St. Paul Campus. The course is planned for people professionally engaged in tree maintenance in parks, on public or private grounds. Sponsors of the event are the University's Department of Horticultural Science and the Agricultural Extension Service.

Danville Junior College Introduces 2-Year Ornamental Horticulture Course

A new two-year curriculum to prepare students for specific positions in businesses that require horticultural training, is being offered students this fall at Danville Junior College, Danville, Ill.

Supervisor of vocational agriculture, James Nickell, says the two-year curriculum is a post high school program encouraged by the Vocational Education Act of 1963.

Graduates of the program will be trained as semiprofessional workers to fill positions such as foremen, assistants, and technical workers. They will qualify for employment in such fields as turf management, greenhouse management, park management, floriculture and floral design, highway beautification, tree surgery, arboriculture, and landscape.

According to a study by the Illinois State Advisory Committee on Ornamental Horticulture, it was learned that if 300 students trained in horticulture were graduated each year for the next 15 years the demand for these technicians would not be met.

In addition to classroom training, students will engage in on-the-job training during summer months with area horticulture businesses. A high school degree is not necessary providing an entrance exam to the college is satisfactorily passed. Some scholarships for students entering the program will be provided by the Illinois Nurserymen's Association.

Persons interested in training for a career in ornamental horticulture can obtain complete information by writing to James Nickell, Supervisor, Vocational Agriculture, Danville Junior College, Danville, Ill.

"Pruning improves not only health, but appearance of trees as well," Dr. L. C. Snyder (second from left) tells this group at Minn. Tree Maintenance Short Course. Listeners are, from the left, Bob Wright of Minneapolis, Eugene Buechner and B. L. Woodward, both from the St. Paul Parks Dept. Snyder's pointers were programmed to come just before fall tree pruning season.

Thompson Mfg. Acquires Hayes

Thompson Mfg. Co., Los Angeles-based producer of lawn and garden sprinklers and turf irrigation systems, has acquired the Hayes Spray Gun Co., of Pasadena, manufacturer of hose sprayers for fertilizers and insecticides. Announcement was made jointly by Stephen F. Hinchliffe, Jr., president of Thompson, and Merle H. Banta, a Thompson officer and new president of Hayes.

Thompson Mfg. is located at 2251 E. 7th St., Los Angeles, Calif. The Hayes Spray Gun Co. is at 98 N. San Gabriel, Pasadena.