

## Trimnings

**Stevenson Services**, College Park, Georgia, is sponsoring two lawn and ornamental training seminars. The first is scheduled for February 27 and 28 and the second April 23 and 24. The sessions will include information on lawn pest control, chemical application, pest life cycles, equipment use and more. Both sessions will be held at the College Park headquarters. For more information contact Bill Blasingame at 404-762-0194.

**The New Jersey Federation of Shade Tree Commissions** observed its Golden Anniversary meeting at the Sheraton Poste Inn in Cherry Hill, New Jersey. Harry J. Banker, West Orange, N. J. was reelected president and Stephen Bachelder, Piscataway was elected vice president of that organization. Reappointed for two terms was Edgar Rex as executive secretary and Spencer Davis as treasurer. The Award of Achievement, the Federation's highest honor, was presented to Edward F. Brarman of Madison.

**National Fire Protection Association** released a new brochure: "Code for Storage of Pesticides in Portable Containers." The publication describes standards and codes established by the Association as they apply to commercial storage of pesticides both indoors and outdoors in containers under 660 gallon capacity. According to the Association, the standards are widely used on a voluntary basis by commerce and industry and are referenced extensively in OSHA regulations. The booklet can be obtained for \$2.50 by writing: National Fire Protection Association, Publication Sales Department, 470 Atlantic Ave., Boston, Mass. 02210.

**Chain saw** dealers and distributors will be interested in a new vest-pocket folder from Pioneer. The four-page publication contains enlarged pictures of saw chain as seen by factory quality control inspectors. The folder also highlights patented features of the Duraspeed and Duraguard saw chain.

**A construction** outfit from the Dayton, Ohio area, Donald L. Huber, has developed a practical and ecologically elegant scheme to cut land development costs. His right-of-ways are paved to 40-foot, not 50-foot width, and flanked by grass covered, gravel-based berms that blend to sodded swales. According to the report, the grass swales are more effective in collecting water than storm sewers, which carry water off too quickly and lower the water table. Grass growing on the curbless berms is easy to mow and maintain. Huber is paying \$6 per linear foot for tree planting along the berm, substantially less than the cost of curbing, gutters and an additional 10 feet of paving. But the greatest advantage of his system is not the economy, but the nostalgic, slightly rural charm of the narrower grass-banked road which eventually will be shaded.

**Cancer threats** have caused considerable alarm recently about the possible health hazards associated with the use of pesticides. But Americans must face the fact that there are many natural substances in the environment which are some of the most powerful toxins and carcinogens (cancer producers) known to man — and which are often present at much higher levels than pesticides.

A professor of soil science at the University of Minnesota, Dr. Russell S. Adams, Jr., says the relative abundance and widespread distribution of these natural carcinogens make it especially difficult to statistically compare the effect of pesticides on cancer inducement to the effects of these natural carcinogens. Scientists have shown, for example, that potent, naturally occurring carcinogens exist in the soils.

"Reading the roster of organic chemicals credited with promoting or inducing cancer is like reviewing the chemistry of soil organic matter," says Adams. "In fact, a class of chemicals often implicated in promoting or inducing cancer — polyphenols — forms the building blocks from which soil humus is produced."

Adams indicates that while these potent, natural carcinogens are

known to exist in soils, agronomists have not yet conducted sufficient research to be able to predict whether these compounds could be taken up by plants and translocated in a biologically active form to the edible portions because funds for such research have not been available.

Scientists do know, however, that plants also contain many naturally occurring toxic and carcinogenic chemicals. And these natural substances often occur in foodstuffs at levels higher than the safety factors established for pesticides. Adams points out that many of these natural toxins have herbicidal, insecticidal and fungicidal properties and often have chemistry quite similar to pesticides. If the Delaney Clause of the Food and Drug Act, which prohibits the use of food additives known to produce cancer, were applied to natural substances, Adams contends that no foodstuff could be legally sold or consumed. "Some of these natural carcinogens are among the most potent known to man and their presence may actually be controlled by the use of pesticides," he says.

There are still hotly debated issues in discussions of carcinogenic substances — including the question of dose response. Some scientists argue that carcinogens will produce cancer at any dose level while others, including Adams, contend that carcinogens do not produce a cancerous response when they are present in amounts below a certain threshold level.

Adams reasons that it is statistically impossible to demonstrate carcinogenicity of chemicals in test animals at very low doses unless a dose response is shown since the normal laboratory rat or mouse is highly susceptible to cancer — even when not experimentally exposed to cancer producing chemicals. Adams cites other reasons for the necessity of showing a dose response to prove carcinogenicity.

In Adams' opinion, decisions regarding the regulation of toxic and carcinogenic substances will be quite complex and will involve several combinations of variables depending upon a specific environment — especially if attempts are made to weigh the risks posed by these substances against the benefits.