

PLANT PATHOLOGY

Oak Wilt Preventive

Local spread can be stopped by cutting out infected tree, by poisoning ring of healthy trees around infected stand or by cutting interlocking roots.

► FOREST scientists have announced that oak wilt, rapid-spreading killer of one of America's most common trees, can be stopped in its tracks by poison or the knife.

Cutting out the first infected tree from a stand of oaks, like removing a cancer from the human body, will prevent local spread of the deadly disease, three University of Wisconsin plant pathologists said. Up to now neither prevention nor cure has been known for the blight, caused by a fungus called *Chalara quercina*.

Still a mystery, however, is the way in which oak wilt jumps great distances. Appearing little more than ten years ago in the Great Lakes area, it has already struck across Illinois, Wisconsin, Minnesota, Iowa, Missouri and Indiana. It was reported for the first time this year in Arkansas, Ohio and central Pennsylvania. Huge areas wooded in oak are threatened.

In a given stand of trees, oak wilt has been found to travel an underground route, moving from tree to tree through natural

grafts of their roots. Cut these links, Drs. A. J. Riker, J. E. Kuntz and C. M. Beckman of Wisconsin told the American Phytopathological Society, and no further infection occurs in that area.

This is done by natural barriers such as roads. It may also be done, the Wisconsin scientists learned, by poisoning a ring of healthy trees around an infected stand or by cutting the interlocking root systems with a tractor-drawn knife. Sometimes if a single wilting tree is poisoned or cut out early enough, spread of the fungus can be stopped.

Proof of the underground root path was obtained by tracing poisons, dyes and radioactive iodine. When a single tree was poisoned with sodium arsenite, five trees were killed. When these in turn were treated, 21 more trees died. Radioiodine moved from a treated tree to three others within six hours, the Wisconsin pathologists reported.

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PUBLIC HEALTH

Tighter Controls Sought

Government is seeking more power to protect the public against poisoned food now that more synthetic chemicals are used in farming and food processing.

► THE GOVERNMENT is making a determined bid for more power to protect the public against poisoned food.

More and more are man-made chemicals being used in farming and food processing to fight insects, plant diseases, and weeds, to fertilize, or to enhance the attractiveness and nutritional value of grocers' wares.

The Food and Drug Administration now is asking Congress for tighter controls over which chemicals can or cannot be used. Under present laws, FDA says, dangerous chemicals can creep in. Yet only when some one gets hurt can the government act.

Pure food men have asked a special House committee to recommend changes in the laws which would make food processors show in advance that their products are harmless, just as drug manufacturers are now required to do.

The committee is headed by Rep. James J. Delaney, D., of New York. Hearings were begun last August and resumed re-

cently in Washington as the committee delved into the use of chemicals in food products and farming.

Government experts and representatives of large food and chemical firms are being called to testify. Already they are arrayed on opposite sides of the fence.

The director of pharmacology of the Food and Drug Administration, Dr. Arnold J. Lehman, told the Delaney committee that his agency now has no jurisdiction to stop the widespread use of dangerous chemicals. One example, he said, is chlordane, a post-war insecticide which can be bought in common aerosol bombs at many drug stores. Yet chlordane, Dr. Lehman said, is four or five times more poisonous than DDT; it can harm the human liver and skin.

The chemical industry is opposing any change in food and drug legislation. Spokesmen say none is necessary, that adequate controls are provided by present laws.

They point to protracted hearings held

by the Food and Drug Administration this year to determine permissible residues of various chemicals used by growers of fruits and vegetables. Much of the research evidence which filled 9,000 pages of testimony, the chemical industry claims, was the work of its own scientists, who themselves check possible toxic effect of farm chemicals on consumers.

The Delaney committee is investigating a much broader field than the FDA hearings covered, however. It is studying the use of all compounds used as insect killers or fertilizers in all types of farming, as well as chemicals used in the processing of food.

The public may hark back to the mid-1930's and say, "Isn't this where we came in?" For five years, from 1933 until 1938, the Food and Drug men and the chemical-makers battled out a new pure food act.

That law specifically prohibited traffic in food which may be injurious to health. But under it, deputy Food and Drug Commissioner C. W. Crawford told the Delaney committee, the standards of what is and what isn't harmful are too loose.

The government, he said, can act against impure food products only after they go on sale, a procedure he said was unsafe.

The Food, Drug and Cosmetic Act of 1938 was the first revision of the old Food and Drugs Act of 1906. Since that time, use of chemicals in agriculture particularly have increased tremendously. In the opinion of the men who protect the public's health and pocketbook, the time has again come when more effective safeguards against poisonous foods are necessary.

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BOTANY

Christmas Flowers Kept Fresh in Freezing Locker

► SCIENTISTS at Cornell University have discovered that cut flowers can be preserved in freezing lockers much the same as frozen vegetables.

The conventional cold storage of blooms in cans of water delays but does not stop the flower's development. A rose cut when the petals are beginning to unfurl goes right ahead and blooms.

To be held in their just-cut state, flowers have been put in "suspended animation" at Cornell. Blooms are cut at the usual stage for shipment. They are then wrapped and sealed in cellophane to stop dehydration, and stored in near-freezing temperatures. Blooms can be held as long as a month in this manner.

At Cornell, peonies, roses, chrysanthemums, garden lilies, lilies-of-the-valley, carnations and gladiolas have been stored successfully.

Only one flower resisted the modern treatment. Like their tropical neighbors the bananas, orchids should not be kept in the refrigerator.

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