

PLANT PATHOLOGY

"Action Now" Imperative, As Elm Disease Menace Grows

ELMS by the thousand have been afflicted this summer by the so-called Dutch elm disease, which made a second entry into this country only last year, in the region around New York harbor. In the summer of 1933, elm disease scouts found about 800 afflicted trees; one year later the number had swelled to approximately 6,800. "Action, and action now," is absolutely necessary if all the beautiful elms of America are not to be wiped out.

This is the gist of an address on the Dutch elm disease by Dr. S. B. Fracker of the bureau of entomology, U. S. Department of Agriculture, given under the auspices of Science Service.

Like Medieval Pestilence

Dr. Fracker's roll of tree deaths in the cities of Europe, after the disease was first noted in Holland during the World War, was almost like an account of a medieval pestilence among human beings. All the majestic rows of elms in the famous park at Versailles dead and cut down; 2,000 elms destroyed in the region around Bremen, Germany; 17,000 elms killed in Rotterdam, Holland—the list is almost endless and wholly appalling.

Drastic means alone can save American elms, Dr. Fracker indicated: "The only practical basis of safeguarding the healthy elms is a complete eradication

of the disease by searching out and destroying the infected trees before the disease spreads to other trees. The obvious symptoms of the disease in a tree are evident during the growing season for six to ten weeks before the bark beetles in the bark can mature and emerge to spread the disease. This makes it possible to locate and destroy the affected trees and thus prevent its dissemination by these beetles. It is evident therefore that if the disease is principally transmitted by these bark beetles, as is now strongly indicated, eradication is both practicable and feasible providing the required work is done promptly and persistently."

Next year will be a critical period in the campaign to drive out this new invading enemy from American territory. In spite of the seriousness of the situation, Dr. Fracker refused to be downhearted. He continued:

Can Be Eradicated

"This country has proven in several other similar campaigns that a new plant disease or a new insect arriving within our midst can be completely wiped out, if the effort is vigorous enough and the resources adequate for the job on hand. We believe that the Dutch elm disease can be eradicated from the United States and the elms of America protected from the disaster which has overtaken those of Europe

if the diseased trees of the New York, New Jersey and Connecticut area can be found and destroyed fast enough and if the work can be continued until the last trace of this fungus is destroyed."

Dr. Fracker's talk was put on the air over the network of the Columbia Broadcasting System.

Science News Letter, September 15, 1934

CHEMISTRY

Chameleon "Watchdogs" Serve to Guard Gasoline

CHEMICAL "watchdogs" known technically as inhibitors, whose function it is to protect gasoline from deterioration, now change their color when their protective ability weakens.

Drs. C. D. Lowry, Jr., C. G. Dwyer, Gustav Egloff and J. C. Morrell of the Universal Oil Products Company reported to the American Chemical Society that it is possible to use certain dyes as inhibitors for decreasing gasoline deterioration. With age the gasoline "guardians" weaken, but at the same time their color fades. Thus chemists are able to tell when the inhibitory chemicals are so weak that they must be replaced.

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METEOROLOGY

Wet Autumn May Follow Droughty Summer

DROUGHT and heat, twin scourges that afflicted Midwestern states during the summer, may be followed by the blessing of abundant rain in September and October. They will, if statistical correlations between early-season high temperatures and autumnal rainfall, as worked out by Charles D. Reed of the U. S. Weather Bureau at Des Moines, Iowa, continue to hold good.

Mr. Reed has found that over a long period of years warm Januarys, Mays, and Julys have been followed by above-normal rainfall in September, and that warm Augusts have been similarly followed by above-normal rainfall in October. His studies have been confined to temperatures and rainfall for the state of Iowa as a whole; but since the climate of the corn belt is more or less of a unit, what is true for Iowa should hold good, at least to some extent, for the Midwest generally.

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