

PHLOEM NECROSIS OF AMERICAN ELM IN THE MISSISSIPPI DELTAT. H. Filer, Jr.¹

Phloem necrosis in elms, caused by the virus Morsus ulmi Holmes, has been found at Rolling Fork, Mississippi, 60 miles northwest of Jackson and 47 miles north of Vicksburg, in the Delta hardwoods area. It was first reported in Mississippi in 1941, when it was found at Jackson, and it appeared in the northeastern part of the State in 1945 (1).

Suddenly dying American elms, Ulmus americana, were reported in the town in June 1966, and subsequent examination showed 35 of the approximately 400 elms there dead or dying. The foliage symptoms were characteristic of either Dutch elm or phloem necrosis disease.

Examination of 20 trees with flagging or browned leaves revealed butterscotch-colored phloem with the odor of wintergreen -- symptoms described for phloem necrosis (2).

Typical galleries of Scolytus multistriatus Marsh.², the most important vector of Dutch elm disease, were found under the bark of 15 dead trees. But branches taken from these trees did not show the brown streaking that is characteristic of Dutch elm disease, and the Dutch elm disease fungus, Ceratocystis ulmi (Buism.) C. Moreau, could not be isolated from the branches or galleries.

Phloem of 20 trees showing no foliar symptoms was sampled. In five, discoloration and a slight odor of wintergreen indicated infection by phloem necrosis. Few diseased trees have been discovered outside the town.

Literature Cited

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2. SWINGLE, R. U., R. R. WHITTEN, and H. C. YOUNG. 1949. The identification and control of elm phloem necrosis and Dutch elm disease. Ohio Agr. Exp. Sta. Spec. Circ. 80, Wooster.

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²The elm bark beetle was identified by R. C. Morris, Entomologist, Southern Hardwoods Laboratory, Stoneville, Mississippi.