FACT SHEET : DUTCH ELM DISEASE

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General Description: Dutch Elm Disease (DED) is a vascular wilt fungus. An infection will inhibit the flow of water and nutrients from the roots to the foliage. A stressed tree once infected with DED will begin to loose branches a few at a time and usually die within a few years. The disease can be spread through an insect vector or through root grafts made with nearby trees.

Current Distribution: Fairly widespread throughout the US wherever Elm trees grow in rural and urban areas.

Host Plants: Most native species including American, Red, and Winged Elm.

Resistant Plants: Species such as the European White Elm, Siberian Elm, and many Asian species have shown to be resistant though not of desirable quality as landscape trees. Several hybridization and cultivation programs have been in operation for some time not to research and isolate DED resistant species. Many of these have parentage from the American Elm and similar habits and site requirements. Resistant species include: 'Homestead', 'Patriot', Accolade', and 'Valley Forge.'

Symptoms: Begins as a general wilting of the leaves that begin to yellow and brown. Patterns vary in the crown varies depending on where the fungus is introduced in the tree., either from root graft or from insect vector. '*Flagging*' is a term widely used to identify DED as a branch can suddenly turn brown and die in an otherwise green canopy. Symptoms usually show up in late spring or into summer and fall.

Control: Not much can be done to save an infected tree. To prevent the spread of DED: proper sanitation of tools should also be used when pruning. Infected Elms should be removed and root pruned to reduce the spread via root grafts with nearby uninfected trees.

Macro-injections of fungicides have been useful as a preventative treatment for protecting valuable specimen trees as well as those nearby infected sites. Only resistant species should be planted in the landscape.

Left: Infected Elm Tree
Picture taken by Linda Haugen, USDA Forest Service

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