

Issued by the DOE Arboricultural Advisory and Information Service.

DECAY AND DISINTEGRATION OF DEAD ELMS, by J.N. Gibbs and D. Patch

Abstract

The experience relating to the time scale for the break up of dead elms is reviewed and powers available for the removal of trees considered to be dangerous are outlined.

Introduction

1. In the southern half of England and south Wales thousands of dead elms are still standing. Most are English elms (*Ulmus procera*), although in East Anglia and the east Midlands there are appreciable numbers of dead smooth-leaved elm (*U. carpiniifolia*). In north Wales, northern England and Scotland the Wych elm (*U. glabra*) is the principal species. As yet Dutch elm disease has made less impact in these areas, but appreciable numbers of dead trees are to be found in some localities.

Fungal colonisation of dead elms

2. It is known that the principal coloniser of the trunks of dead elm is the fungus *Flamulina velutipes*, variously called 'velvet shank', because of the appearance of the stalk of the toadstool; or 'the winter fungus' because the toadstools are produced between November and March. This fungus causes a mottling of the wood but only a very slow decay. In consequence the trunk does not decompose quickly. Less is known about the rotting of the roots, although Honey fungus, *Armillaria mellea*, is very often present.

Progress of disintegration

3. In general elms may be expected to lose their fine twigs within one year of death and the small branches and bark will fall away within two to three years. By contrast the trunk and major branches may still be intact after seven to eight years. However, observations in various areas indicate that very few trees have been allowed to remain for this length of time.
4. Although there is no evidence to suggest that recently dead elms are more susceptible to uprooting during winter gales than live trees, it should be realised that if the root system is heavily infected with fungi such as *Armillaria mellea*, a tree could become susceptible to uprooting quite quickly.

Powers of Local Authorities

5. The longer dead trees are allowed to remain standing the greater the risk of them shedding major branches or toppling over as a result of stem or root failure. Land owners threatened by long dead trees on adjacent property may require local authorities to exercise the powers vested in Sections 23 and 24 of the Local Government (Miscellaneous Provisions) Act 1976. Highway authorities may wish to exercise their powers under Section 10 of the Highways (Miscellaneous Provisions) Act 1961 to ensure that trees do not disintegrate onto public thoroughfares.

Produced by -

O.N. Blatchford

Principal Research Communications Officer

Forest Research Station, Alice Holt Lodge, Nr Farnham, Surrey

26 March 1982