Abstract

Extraction Damage as a cause of Decay in Standing Trees

In a recent Swedish publication Nilsson and Hyppel[1] report on an investigation they carried out in Sweden on the incidence of rot in standing Norway spruce resulting from injury to the base of the stem or roots. They concluded that the location of scars and their depth are of great importance in determining the development of rot attacks. Root injuries near to the stem are more likely to result in serious rot attack than injuries further away from the stem. Deep injuries are more likely to result in serious rot attack than are superficial injuries. Based on a moisture analysis of the lower stem and roots they suggest that there is a zone between the dry heartwood and wet sapwood which is, from a moisture point of view, suitable for the growth of rot fungi. A deep scar near the stem will expose this zone, while a superficial scar must dry out for a while before the rot fungi reach the suitable zone. Scars far from the stem never make this zone available to fungi.

These findings, as the authors point out, may have significance in view of the increased mechanisation of thinning operations. They suggest that using tractors approximately 8 feet wide in extraction, it would be necessary to have extraction paths 13 feet wide to avoid damage which could cause injuries likely to lead to serious rot development in residual trees.

G. de Brit.

1. P. O. Nilsson and A. Hyppel. Studier över rötangrepp i sarskadar hos gran (Studies on decay in scars of Norway spruce). **Sveriges Skogsvardsförbunds Tidskrift,** 8, 1968, pp 675-713.