EPICORMIC SHOOTS ON GREEN-PRUNED P.RADIATA

by F.H. McKinnell

The pruning regime introduced in 1960 was not without its ill-effects. It was found during 1961 that there was an abnormal number of epicormic shoots showing up on the newly pruned pines at Grimwade. It became apparent that if these shoots persisted, the pruning operation had been entirely wasted on up to 30% of the stems in some areas. Eventually it was found that the situation was not as serious as it had first appeared, and the following conclusions emerged from observations over the first two years following pruning:

1. The epicormic shoots are generally concentrated on the northern side of the stem, indicating that their production is stimulated by exposure to the heat and/or the light of the sun.

2. Shoots are found only on young trees and when the bark has thickened to the stage of being fissured, the exposure has no effect.

3. The shoots are more dense on trees with long internodes - such trees have a tendency to develop epicormics even when they are not pruned.

4. Most epicormics die off in the next twelve to eighteen months after pruning if they become shaded on the side toward the sun by growth of either upper branches or adjacent stems.

5. Where the shoots do not die off quickly, they produce a multidude of small knots which nullify the aim of early pruning to obtain clear wood.

6. In poorly stocked areas where the shoots do not soon become shaded over, they persist indefinitely. There is the case of an avenue of P.radiata on a farm near Newlands, where the epicormics resulting from the initial early pruning reached a length of 2'6" in 18 months and necessitated a second pruning operation. After the second pruning the bark was thick enough to be unaffected by exposure and no more epicormics were formed.

Where the shoots have the opportunity to develop to the extreme noted above, it is obviously futile to green prune with the object of producing 3" knotty core. It is essential therefore that early pruning of open, poorly stocked areas should be undertaken with caution.