

EUCALYPTS ON DIE-BACK SITES.

By J. B. Campbell

It has been noticed at Willowdale where we have an arboretum of Eastern States eucalypts, established in 1937, that both Tallowood (*Euc. microcorys*) and Sydney Blue Gum (*Euc. saligna*) are beginning to satisfactorily colonise (colony-wise) the nearby Bullich (*Euc. megacarpa*) gully. Some keen forester transplanted some of these "wildlings" in a die-back site in Nanga block and on a barren site at Tallanalla, and it was noticed that they grew with no further treatment.

Following on these observations it was decided to establish a small plot of Tallowood on an exceedingly poor "die-back" site between Harvey and Tallanalla. A small area of about two acres was duly cleaned up, burnt, ploughed and planted in 1961.

At the end of one year survival was good and the plants looked healthy, however one half of the plot was given 2 oz. of superphosphate per tree. Today these trees are four to six feet high and those on the supered are more vigorous.

Each year since 1961 a further one or two acres have been cleared and planted. On two plots *Saligna* has been planted and strangely enough these look even more vigorous than the Tallowood and show a similar response to super. In 1963 planting copper-zinc super has been tried but we have no results to date.

Because of the nature and appearance of the leaves and the branch formation it is suspected that potash is deficient in these soils and it is intended to establish a plot this year to test this theory.

These trials are by necessity very small but they have shown Harvey foresters that it is definitely worth pursuing these trials further. It is especially hoped that the Tallowood will continue to live and grow as it produces such high quality wood and we are sure that they can be control burnt. In addition it is proving at Willowdale that it can colonise.

One point that has been shown is that establishment is poor unless the area is ploughed. This is unfortunate as it is costly to prepare the ground ready for ploughing.

This year it is hoped to plant about ten acres mainly in one of the worst die-back areas in Nanga block near the Murray River. Trials will be commenced with other likely species and one that is hoped and thought will be successful is Spotted Gum (*Euc. maculata*). Mr. Wallace tells us there could be quite a market in this State for wood from this species by way of tool handles.

One of our Editors will be pleased to learn that the *Euc. saligna* that he helped to measure when he first joined the Department are growing at the rate

of between 15-18 loads per acre per annum to a 4" crown. These figures are very approximate as the areas are so small on the old Willowdale plots.
