

S.G.A.P. ACACIA STUDY GROUP
NEWSLETTER
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The end results of bushfire damage to trees and shrubs

One year ago, January 1962, my garden of about 7 years, mostly trees and shrubs, was burned in the Dandenongs bushfire. Some 1,200 specimens were involved; of these, 500 were acacias including 120 varieties. The first fire swept the place from the south on January 15th giving the garden a good but not complete burning. On January 16th, at a temperature of 104° another fire crossed the property from the north.

In a single fire it may be considered that the burning would be patchy and it would be difficult to assess the heat damage to individual plants. I stress the double burning as it would be fair to assume that most specimens would at least be badly damaged. As the house was saved most shrubs within about 20 yards were spared or little damaged. With isolated exceptions the rest appeared destroyed. Of the exceptions burning varied from one quarter to three quarter of the specimens. A few green leaves were left in varying degrees.

It was difficult to get an idea, even from experts, as to what would ultimately happen. I heard one authority on television state that the Dandenongs would take three years to recover. Yet, at the present day, looking at the west face of the range, it would be hard to say a fire had occurred recently, and at close quarters only the black trunks of the eucalypts give the game away. For within 6 to 8 weeks the trunks sprouted many leaves and a green tinge was widespread. (I am told the trunk leaves will disappear next year). The grass commenced to green four weeks after the damage, and four weeks later a new coverage interspersed with black patches appeared. It was an exotic green, best described as a shiny darkish green, and this was probably due to an excess of potash. The grass, mostly wallaby and kangaroo, together with a small amount of white clover, showed little movement in September but thence grew rapidly and in the bush parts the seed heads are four feet high.

The acacias predominated and are our main concern. These fared badly. The shrubby ones, of course, had little chance. Yet there were some surprises. Three prostrate acacias – two *A. aculeatissima* and one *A. brownii* – apparently incinerated, within six weeks threw out multiple new shoots and have recovered completely. This confirms the advice that if surrounded by smoke put your nose and mouth close to the ground for here is the most oxygen. The bigger trees, Cootamundra particularly, were unable to take it even if only partly burned. One 20ft high and nearly the same at its broadest, with one-third at the top intact, flowered in the Spring and then died; it has left for posterity one seedling only. Three more of the same species 15ft high, with only the lower half singed, are beginning their exit; these also flowered in the Spring. Similarly an *A. bivenosa*, 35ft, about one-third burned, flowered and then gave it away. An attractive *A. normalis*, 20ft – the central figure of a lovely painting of the house and its immediate surroundings – with less than the lower quarter burned, flowered profusely, looked a certainty, and suddenly withered. The Blackwood (*A. melanoxylon*) indigenous, numbers of them, some 30 to 40ft stood it badly. Similarly the Silver Wattles (*A. dealbata*) 25ft. A tall Black Wattle (*A. mollissima*) 35ft is a black mass and shows no signs of regeneration, neither shoots nor suckers. Yet some of the same species only a quarter of its height are producing both.

Those about 15ft such as *A. mucronata*, *A. retinodes*, *A. cyanophylla* and *A. cardiophylla* show no signs of recovery. Two willow short lived *A. longifolia*, one third burned, are surprisingly on their feet. Two specimens of *A. maidenii* 12ft high at the time (it is a big tree when fully

grown, to 60ft) have thrown out numerous shoots and a Lightwood (*A. implexa*) with no green left after the fire, has completely recovered with many new healthy leaves.

A few shrubs did escape. *A. paucijuga*, only 4ft at the time, and similarly *A. hunteriana* (rare ones, hard to get and one of my few consolations) are a bushy mass of new shoots. Others to recover and look like staying are *A. obtusata*, *A. decora*, *A. acuminata*, *A. vestita* and *A. pubescens*, all throwing shoots and a few suckers. The rest have not recovered. An interesting feature is the failure to reappear, this season at least, of *A. myrtifolia*, 3 to 4ft which was profusely indigenous. It could be the end of it as happened on the Yarra Boulevard at Studley Park some years ago when the Blackwoods virtually disappeared after a fire. This specimen will be sadly missed as it has a lovely semi-large golden flower which decorated in the early Spring the bush parts of the property. The Blackwoods and Silvers, apart from *A. maidenii*, are the only ones to really make an effort; suckers are everywhere. The biggest surprise is the failure of the Cootamundras to rehabilitate. About 50 of these were growing but to date only a few suckers can be seen.

What of the seeds? It has been accepted that after fire wattle seeds will germinate in quantity. One experienced wattle grower warned me that such would not necessarily happen; it has not happened at "Bethongabel". Many suckers from a very few, an odd sucker from another few, but I can see little sign of seed growth. What of the 50 Cootamundras? You know how abundant is their seed. Yet I will have to plant new seedlings to restore this specimen. Is it too early to judge? Am I impatient? More than one year appears a long time to wait for seed regeneration. This failure of the seeds to germinate further strengthens my contention that conditions must be just right for the seed. The depth under the soil and the amount of moisture present must surely play a big part. The land was extremely dry when the fires came.

The acacias have been replaced with about 400 seedlings and there are again 120 varieties. In addition, 50 lemon scented gums (*Eucalyptus citriodora*) and 50 other eucalypts (25 varieties) have been placed in the bush parts to cover the land, also some non-Australian trees are being replaced. The property will be practically covered with the planting of about 40 of the fast growing Tasmanian blue gum (*Eucalyptus globulus*) in the remaining half acre. In this clay soil all are set on top of the ground with a layer of screenings 2 inches below for drainage, and the general rate of growth has been gratifying and surprising. Granted a good season, no prolonged or excessive heat and good rains, we have had similar seasons with much less profuse growth. It would seem that heavy clay soils require potash. Most seedlings have already doubled their height, many are three times the original and some are outstanding. One of the Blackwoods has produced 8ft high suckers. Seedlings 9 inches high last Autumn of *A. verniciflua* are 5' 6" high, *A. normalis* 4ft, *A. longifolia* 5' 6" and *A. praetervisa* 4' 6".

The reactions of other Australian trees and some exotics, are also worth reporting. I will describe them later.

I must conclude on an embarrassing note – our membership has increased and with it the cost of this correspondence which is quarterly as follows:- Stamps 9 at 5d. 3/9d One at 2/4d. Typing 15/-, which makes £1.1.1d multiplied by four equals £4.4.4d yearly.

The individual cost in round figures would be 7/6 per year.

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