

EXOTIC SPECIES FOR THE JARRAH FOREST

by D. Spriggins

The successful growth rates of *Eucalyptus microcorys* (Tallowwood), and *Eucalyptus saligna* (Sydney Blue Gum), planted 30 years ago by Bednall and Chandler in the arboretum at Willowdale, lead to speculation on what other eucalypts or general/^{species}would be worthy of trial in the Jarrah Forest.

The successful establishment of Tallowwood on a gravel dieback area near Harvey is promising - particularly as early growth rates (1961 planting) appear to be greatly superior to Jarrah. Tallowwood could be particularly valuable in these areas if it later proves to be more resistant to dieback than Jarrah.

Apart from the dieback areas there also appears scope for establishing these two or other eucalypts on sites at present occupied by Bullich and poorer Blackbutt, i.e. the edges of gullies and swamps. Soils in these gully sites are largely lateritic silt and, whilst they appear to support only a very poor *P. radiata* or pinaster crop, as many of the old pine plots in these soils testify, they do appear promising for Tallowwood or *saligna*.

The extent of these soils at present carrying Bullich, etc. is not great, but as one D.F.O. has pointed out, the total area probably exceeds that of suitable soil for *P. radiata*. This, coupled with the closeness to the Perth market and the high growth rates we might expect (if the Willowdale Plot is a guide), makes these sites quite attractive.

The most desirable eucalypt to plant in these sites would probably be one with a similar growth rate to *microcorys*, but yielding a lighter timber than Tallowwood or Jarrah, say 30-40 lbs/cubic foot and one that could compete in quality with imported Ramin or Meranti. Apart from *Pinus* there is a definite shortage of this class of timber.

Several eucalypts or other species are worthy of trial in these sites. It is worth noting that *E. microcorys* and *saligna* are natives of summer rainfall areas. Their success in a winter rainfall zone seems to follow an often observed trend that summer rainfall species have more chance of succeeding in a winter rainfall area than vice versa. If this is so then species such as *Eucalyptus pilularis*, Blackbutt, Hoop Pine, Bunya-Bunya and even Ramin or Meranti which grow in the tropical sawmgs of Sarawak, could be worth a trial.

Resistance to fire could be a definite asset in choosing a species but is not an essential, as provision could be made as with pines to protect them from fire. It is likely that our controlled burning experts could, if presented with the problem, draw up a prescription for their safe burning.

Site preparation costs in the gully areas should be cheaper than for hills plantations and much could be achieved by a hot Autumn burn prior to planting, provided the adjoining country was burnt the previous spring.

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In some cases drainage may be necessary to improve the site. The Italian market gardeners, who rather successfully farm what was previously ti-tree swamp areas, illustrate what can be achieved by intelligent drainage.

Of course, at the back of any program for introducing any species, is its resistance to dieback, and it would be foolhardy to launch on some extensive program before this is fairly well established.
