

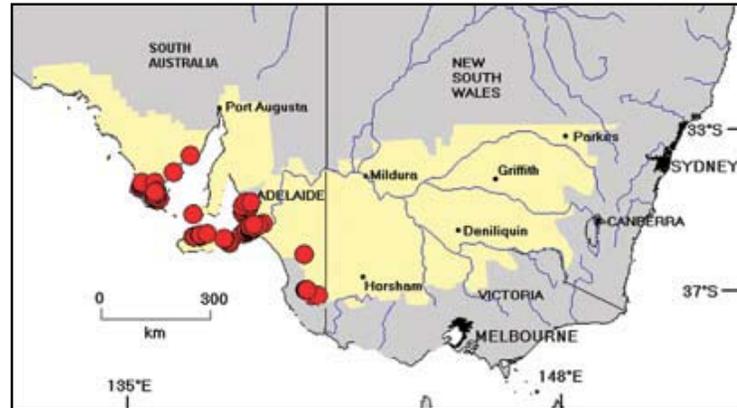
Acacia dodonaeifolia (Pers.) Balb.

Common Names

Sticky Wattle, Hop-leaved Wattle.

Habit

Erect, bushy or open, much-branched, viscid shrubs or small trees 2–6 m tall, dividing near ground level into a number of main stems, the main stems to 20 cm dbh and not especially straight on old plants, typically with a spreading canopy.



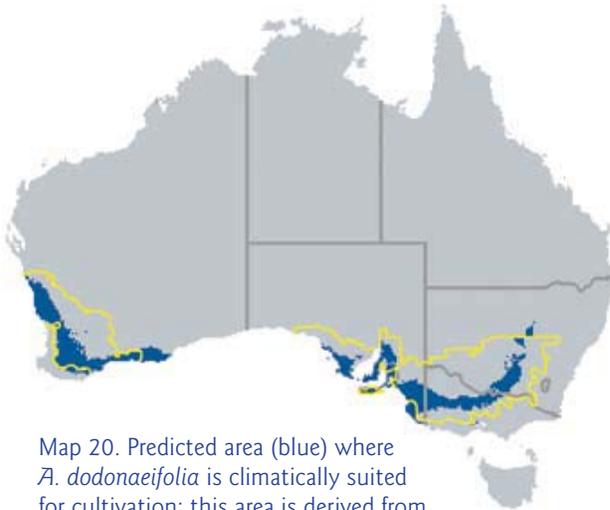
Map 19. Distribution of *A. dodonaeifolia*.

Botanical descriptions and illustrations/photographs are provided by Simmons (1988), Tame (1992), Whibley & Symon (1992) and Maslin (2001 & 2001a).

Taxonomy

Acacia dodonaeifolia is referable to *Acacia* section *Phyllodineae*, a diverse, and probably artificial, group of about 408 species (Maslin 2001) which are characterized by having '1-nerved' phyllodes and flowers arranged in globular heads (see Maslin & Stirton 1998 and Maslin 2001 for discussion). Species of section *Phyllodineae* are widespread in Australia with the main centres of richness located in temperate and adjacent semiarid areas of eastern, southeastern and southwestern Australia; species number greatly decline in the arid zone and in northern tropical/subtropical areas (Hnatiuk & Maslin 1988 and Maslin & Pedley 1988).

Acacia dodonaeifolia is taxonomically quite far removed from other members of section *Phyllodineae* that are discussed in this report. It is a member of the *A. verniciflua* group of species.



Map 20. Predicted area (blue) where *A. dodonaeifolia* is climatically suited for cultivation; this area is derived from a bioclimatic analysis of the natural distribution (red circles, Map 19), see also Table 5. Target area shown in yellow.

Conservation status

This species is listed as Rare on the South Australian National Parks and Wildlife Schedule. Collection of seed from wild populations will require a permit and because of its conservation rating more stringent conditions apply than would to a non-listed species.

Distribution and habitat

Seemingly endemic in South Australia where it has a scattered distribution, mainly in near-coastal, regions. It is unknown if the species occurs naturally in Victoria (see **Weed potential** below). In South Australia the two main areas of occurrence are the southern part of the Eyre Peninsula and the southern Lofty region; it is locally common in some places on the southern Eyre

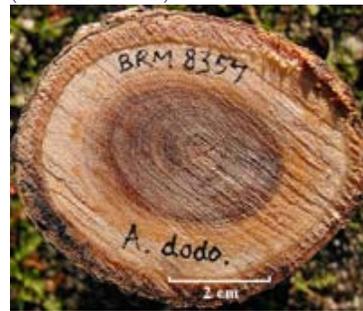
Figure 9. *Acacia dodonaeifolia*



A – Old plant (arrowed) in dense roadside vegetation. (Photo: B.R. Maslin)



B – Base plant shown in A.
(Photo: B.R. Maslin)



C – Section of stem of plant shown in A.
(Photo: B.R. Maslin)



D – Adolescent plant showing dense rounded habit. (Photo: B.R. Maslin)



E – Branchlet showing round heads & sticky phyllodes. (Photo: J. Simmons)

Peninsula but not common elsewhere. There are minor occurrences on the southern Yorke Peninsula, Kangaroo Island and few scattered localities in the southeast of the State around Naracoorte and Keith. The distribution of *A. dodonaeifolia* is largely confined to the target area. Usually grows on undulating hills on clay loams or sandy clay loams, in eucalypt woodland and open forest (not in Mallee communities according to P. Lang, pers. comm.). It is tolerant of calcareous soils.

Flowering and fruiting

Flowers from July to November and fruits usually from December to January (Bonney 1994).

Biological features

Likely to coppice and only occasionally suckers. It is reputed to be fast growing (according to M. O'Leary, pers. comm., it can reach 4–5 m quickly with main stems 6–8 cm diam.). It is estimated that plants live for about 20 years.

Genetics

Possible natural hybrids between *A. dodonaeifolia* and *A. paradoxa* are recorded from the Eyre Peninsula, South Australia (see Whibley & Symon 1992); in WATTLE (Maslin 2001a) this putative hybrid is keyed and described separately, as *A. dodonaeifolia* x *paradoxa*.

Cultivation

In South Australia *A. dodonaeifolia* has been cultivated in rows as a hedge plant (M. O'Leary pers. comm) and is used in roadside plantings in Victoria (see below). However, it is not common in cultivation. It is likely to grow best on well-drained soils; lime tolerant. Seed should be sown from mid- to late-spring (Bonney 1994).

Weed potential

This species has at least moderate weed potential in wetter areas (for example, some plants found in the Adelaide Hill may be garden escapes). Also, according to Entwistle *et al.* (1996), the species is naturalized and spreading in western Victoria, usually escaping from roadside plantings. These authors note that it is not possible to determine with certainty whether herbarium records of *A. dodonaeifolia* from the early 1900's, from around localities such as Nhil and Kerang, are plantings or naturalized.

Wood

Based on our limited field sampling, the wood is reasonably lightweight relative to its volume (hence probably of moderately low density); the sapwood is white and was present in a similar ratio to the light brown heartwood. Splits occurred due to shrinkage during drying of our field wood samples.

Utilisation

Suitable for ornamental and amenity planting.

Potential for crop development

Because of a paucity of relevant information it is difficult to accurately assess the crop potential of *A. dodonaeifolia*. Nevertheless, based on current evidence it is not considered particularly prospective as a crop plant for high volume wood production. It is ranked as a category 4 species and would seem best suited as a phase crop (Table 6). It is expected that the coppicing ability of *A. dodonaeifolia* would be insufficient to warrant its consideration as a coppice crop. This species is reputed to have a very fast grow rate and, in wetter areas at least, develops a moderate amount of woody biomass (wood seemingly has a moderately low density). However, it is not known if this species is capable of producing acceptably high volumes of wood; in drier sites in particular it may well have difficulties meeting biomass requirements. Because *A. dodonaeifolia* is taxonomically distinct from other species detailed in this report it may possess unique, desirable attributes; it is therefore worth undertaking further study to assess these possibilities.

The area predicted to be climatically suitable for the cultivation of *A. dodonaeifolia*, based on its natural climatic parameters, is shown in Map 20. This analysis suggests that *A. dodonaeifolia* is suited for cultivation on exposed sites in the 300–450 mm rainfall zone of the target area. However, we would expect it to perform even better in higher rainfall areas (which is where it may possibly be prone to some degree of weediness). This may be a difficult species to mechanically harvest due to its often “busy” multiple branching from ground level.