

The MANNA WATTLE *(Acacia microbotrya Benth)*

By C. A. GARDNER, Government Botanist

THE Manna Wattle is an attractive native tree which is worthy of attention for several reasons. Perhaps it is best known as the source of "manna gum"—the market value of which has risen from £170 per ton in 1955 to £252 per ton (2s. 3d. per lb.) at the present time.

Apart from the yield of gum however, the tree is both decorative and useful when used to provide windbreaks or shade for stock. It is eminently suitable for planting in areas with an annual rainfall between 12 and 20 inches, and its sweetly-scented blossoms, which usually appear in May and June, may some day have commercial value for use in the manufacture of perfume.

In the early days of settlement the bark of the Manna Wattle was often used in home tanning, and the gum was collected for export. Gum prices remained low however until the period following World War I.

Like the other wattles, the tree is not long-lived, but specimens should survive for from 20 to 30 years under most conditions.

Plants are available from the Forests Department nurseries at a cost of 24s. a dozen or 2s. 3d. a plant. Planting should be carried out as soon as possible after the commencement of the winter rains.

DISTRIBUTION

The tree was formerly common in the districts around Toodyay, Northam, York and Beverley and eastward to Merredin, and it extends from the Murchison River to the vicinity of Gnowangerup.

The Manna Wattle does not occur on the Western Coastal Plain and the nearest specimens to Perth are to be found on the Northam road between Clackline and Baker's Hill.

As in the case of sandalwood, the number of trees has been radically reduced owing to farming operations, but many still exist in uncleared areas within the general distribution range of the species.

DESCRIPTION

The Manna Wattle is usually a small, bushy tree about 10 to 16 feet tall, with widely-spreading branches. Much larger specimens were reported from the Dandarragan district about 1850 by Drummond, but these appear to be no longer in existence. The bark of the trunk is dark grey or almost black, rough and fibrous, and longitudinally fissured; that of the branchlets is smooth and greyish-green.

The foliage is spreading or pendulous, and the leaf varies in shape from narrow-lance-shaped to broad-lance-shaped, much narrower towards the stalk end, and usually three to five inches in length.

The leaf is usually broadest at or above the middle, a grey-green in colour, with a fairly prominent midrib and veined from this midrib with rather faint spreading veins. When narrow the leaf is somewhat sickle-shaped (i.e. curved to one side). The flowers are small in small round heads, these flower-heads being arranged in clusters along a common stalk up to one and a half inches in length. In other words, the flower heads or "balls" are not solitary, but several "balls" are arranged on a stalk from the point where the leaves emerge from the twig. This fact, together with the single vein down the middle of the leaf, the small flowers, and the flowering season (late April to mid-June) serve to identify the tree in the bush. Further, the plant occurs most frequently in jam-tree country, or occasionally with wandoo, and still less frequently with jam and salmon-gum.

The gum is exuded by the plants at various times of the year, especially in late summer and autumn and to a less

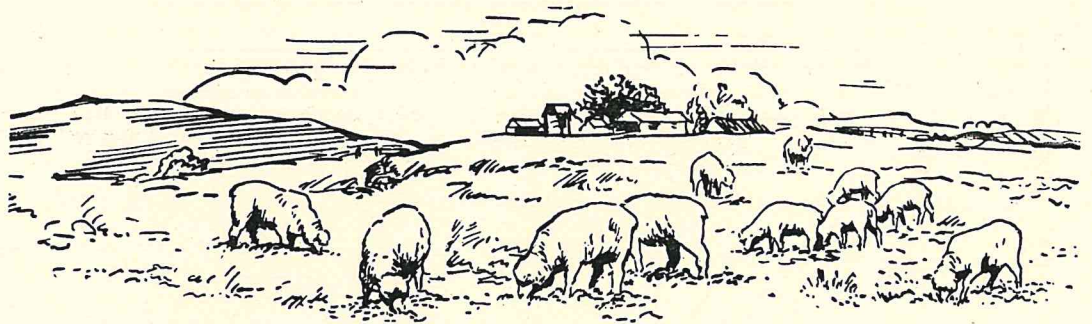


MANNA WATTLE (*Acacia microbotrya* Benth)

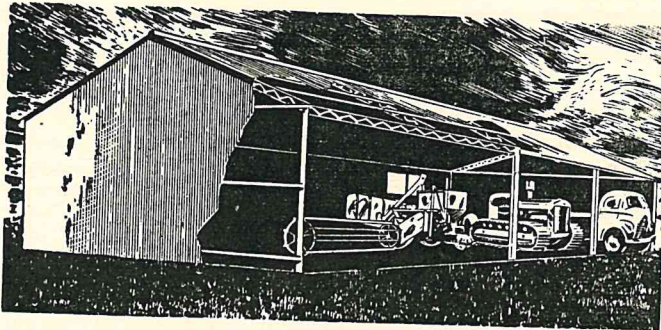
A—Branchlet showing foliage and flowers; B—Flower head; C—Flower (A—stamens, P—petals, K—calyx)

extent in the spring. It appears externally on the trunk and branches in the form of "tears" or large lumps (sometimes the size of a hen egg) varying in colour from a clear pale yellow to almost red. The red colour is due to tannis which discolour the gum as it passes through the bark, and, as a general rule, the clearer gum is obtained from the smooth upper bark, but is not as prolific there as on the rough bark of the trunk and main branches. As the gum exudes, the lumps increase in size and these are sometimes dissolved by

the winter rains, when the substance becomes still more discoloured, and eventually reaches the soil as a deep red substance. In dry weather the gum crystallises externally, and may become powdery, while under spring and autumn conditions, especially where protected from the sun, the lumps remain smooth, and break with a clean fracture. It is these smooth lumps of gum which are the most valuable, and the gum when collected should always be free from pieces of bark.



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