

in myriads, and eats off every leaf till the wattle dies, or becomes so debilitated that grubs easily complete the work of destruction. A minute grub also attacks the leaves, and causes glandular swellings on their surface. These form galls, and when present in large numbers seriously affect the growth of the tree. The broad-leaf wattle is not affected by the beetle, but in old age the grub and borer both attack it. This wattle will not stand severe frosts, and hence should be planted in low elevations, and at no great distance from the sea—say, within twenty miles or so.

A valuable experiment might be tried at the wattle plantations at Rotorua and on Auckland railway-line by sending samples to me in Melbourne, and testing the value by analysis against an equal weight of best Victorian-grown bark. The comparison as to relative strength of tannic extract of the two barks could be tested in this way.

COPY OF MINUTE OF CONSERVATOR OF FORESTS IN VICTORIA (MR. G. S. PERRIN) IN CONNECTION WITH AN APPLICATION FOR INFORMATION *re* WATTLE CULTIVATION.

1. *The Climate and Soil most suitable for its growth.*—Wattle-culture is best carried on within a twenty-mile radius of the sea-coast. The wattle being indigenous to Victoria, and in fact to Australia generally, there can be no difficulty as to climate, provided the cultivation of the wattle be confined to the coastal districts. Sandy heathy soil, with clay subsoil; dry sandy ridges on hillsides.

2. *Where is the best place to obtain reliable Seed?*—Messrs. Lang and Co., Bourke Street, Melbourne; or Messrs. Law, Somner, and Co., Swanston Street, Melbourne; or, better still, select trees and gather yourself. Two varieties are planted—viz., (a) the broad-leaved (gum-like leaf) wattle, *Acacia pycnantha*; (b) the feather-leaved wattle (decurent form), *Acacia decurrens*. The former is the better; it is more tractable under cultivation, yields a much higher percentage of tannic acid, is eagerly bought in the best markets, and stands pruning. The price of the first is 1s. or 2s. per pound for seed, according to quantity on the market. The latter runs up from 2s. to 3s. per pound, and is not always obtainable in quantity.

3. *The estimated Cost per acre for Sowing and attention during progress of growth.*—If on cleared land which has been cultivated, the cost is merely that of ploughing the land and sowing by hand a few seeds, three or four, about 5 ft. apart for (a), and 8 ft. apart for (b). The seed in each case must be placed in boiling water and let cool for, say, twelve hours; it should then be “sweated” by placing it in a small bag drained of the water and placed near a fire (not too near), care being taken not to soak more seed than can be used the following day. Another plan is to sow wattle broadcast like wheat. You prepare the seed as above, and then mix sand (dry), half a bushel of sand to every pound of seed or more, at discretion. A light harrowing should follow, to cover the seed, otherwise the soft pulpy seed would dry up and fail to germinate. I prefer the dibbling system—i.e., putting in seed by hand; it is quicker, and more certain, and insures regularity of growth, and the wattles are easily attended to when in rows. The costs depends upon the soil, locality, and whether timber, heath, or cleared lands. No estimate can be given which would apply to all cases. About 15s. per acre is a guide to first cost, after which pruning has to be considered. This will depend upon the care taken in sowing; if wattles are thin they will not want much pruning out, but if thick and dense as a crop they will.

4. *The estimated Yield of a good Crop under favourable conditions, and value per ton or acre.*—Depends entirely upon circumstances. No defined answer could be given to this query.

5. *Where is the best Market to be found, and in what state should the bark be sent, crushed or in liquid?*—London, undoubtedly. The Germans are, however, going in greatly for wattles; and a local market may be found anywhere. Chopped or ground is best; saves freight.

6. *What Machinery is the best?*—The Echunga Wattle Company, in South Australia, has machinery which pulverizes wood, leaves, and bark, and they manufacture in a liquid form.

I believe there is a great future in the wattle industry if undertaken in a right manner, but it will take seven years to mature a crop of (a) wattles, and eight or nine years for (b) wattles, and therein lies the difficulty to poor men, the length of time required before a return is obtained being beyond the means of many.

LATEST FOREST STATISTICS FOR NEW ZEALAND.

The number of sawmills in working-order at the date of the census of 1891—a year of intense depression, when many mills were closed and others working half-time—was: North Island, 119, employing 1,996 persons; Middle Island, 124, employing 1,270 persons.* To these regular hands must be added the bushmen, contractors, tramway-men, loggers, &c., to the number of 1,750, bringing the total for the year named to 5,016 persons making their living out of the forests of New Zealand (“Official Year-book,” T. Kirk, F.L.S.).

The figures quoted do not, however, give any adequate idea of the importance of the industry in 1896. The kauri trade had languished for a time, but at the period of my visit last year gave employment, directly or indirectly, to at least five thousand persons, and at certain seasons to considerably more. The revival of the kauri trade, of course, brought about greater activity in the sawmills, and it may be assumed that the number of persons who could be employed in this industry would be doubled—that is, to ten thousand—in more prosperous times.

* For 1896 the statistics were: North Island, 155 mills, employing 2,652 persons; Middle Island, 144 mills, employing 1,407 persons.—Ed.