

## *History of the Wattle Industry in Natal*

ALTHOUGH tradition has it that John Vanderplank was responsible for sowing the first black wattle seeds in Natal, it is by no means certain that this was the case. Unfortunately, contemporary records are lacking, and Vanderplank's claim to be regarded as the founder of the wattle industry in South Africa is based on an article in *The State* published some 70 years after the events which it records took place.<sup>1</sup> This article relates that Vanderplank took a cargo of wattle bark from Australia to England in his own ship, where he sold both vessel and cargo and purchased another ship with the proceeds in which he sailed to Cape Town. Not long after his arrival there, he was asked by a merchant named Smith — afterwards Sir Owen Smith — to carry supplies to the Dutch settlers in Natal, and arrived with this cargo in Durban a month after the massacre of Weenen. In recognition of his services, he was granted certain farms in the Camperdown district by the Dutch government, and presumably settled in Natal for a time, since the article states that he revisited England a few years later. There he met his brother Charles, who had recently arrived from Australia and had with him some seeds of the black wattle, and Vanderplank persuaded him to return with him to Natal, promising him a farm at Camperdown. The brothers arrived in 1864, and in that or the following year the black wattle seeds were planted on John Vanderplank's farm at Camperdown, probably near the site of the present Camperdown Hotel.

If this account is a true representation of the facts, it would seem that the real credit for introducing black wattle to Natal should go to Charles Vanderplank. It was Charles who brought the seed from Australia, and although John must have known of the value of black wattle bark as a tanning material prior to his arrival in Natal in 1838, and had owned land there for about 25 years, he apparently did not think of trying to grow the tree until his brother returned with him to Camperdown in 1864.

That the sowings of black wattle seed at Camperdown were not necessarily the first in Natal is suggested by Holley, who stated that Mr. Medley Wood, Curator of the Durban Botanic Gardens, received two unlabelled packets of seed from Australia in the early sixties of last century.<sup>2</sup> As he was unable to identify them, he offered them to a Mr. Forbes of the farm *Killiecrankie* near the Noodsberg who planted them on a sod bank near his house. Seed from the resulting trees, which proved to be black wattle, was collected by Mr. James H. Holley when they were about three years old, and sown on his farm *Broadmoor*, near Wartburg in Natal. Since neither of these two accounts gives specific dates, it is impossible to say which of these two seed introductions can claim priority. It would seem, however, that Vanderplank's trees at Camperdown, which was on the direct wagon route to northern Natal and the Transvaal, provided most of the seed for early plantings of black wattle for shade and shelter on farms in these areas. The earliest plantings in plantation form were probably those made by Mr. Ellerker in the Noodsberg area with seed from Camperdown,<sup>1</sup> and a six-acre plantation established on *Broadmoor* by Mr. James H. Holley with seed

collected from the trees which he had raised from the *Killiecrankie* seed.<sup>2</sup> There is no record of the dates of these plantings, but it is likely that they took place about 1870. A letter from Mr. G. M. (later Sir George) Sutton to the Colonial Secretary indicates that he first established black wattle plantations on his farm *Everdon* near Howick in 1876,<sup>3</sup> and it was he, apparently, who first recognized the commercial potential of the tree in Natal. Other pioneers were Mr. F. T. Angus, who established a plantation at *Ravensworth* about 1879 with seed imported from Australia by his father-in-law, Mr. Nicholson, and by 1884 had about 1 200 acres under wattle,<sup>2</sup> Mr. G. Angus, who had 1 500 acres planted to black wattle in the Noodsberg by 1891,<sup>5</sup> and Mr. Hulley who raised a plantation on the *One House* estate in the Noodsberg area with *Killiecrankie* seed in 1880.<sup>2</sup> The Angus brothers were the two largest growers at the time, but plantations had also been established by Mr. H. A. Carbutt at *Harden Heights*, W. L'Estrange at *Fawnleas*, and G. Potter in the Noodsberg area.<sup>4</sup>

Mr. George Sutton, who had made a study of the available Australian literature on wattle, and had given much encouragement to local growers, also instigated the first tanning trials with locally-grown bark. These were carried out by Mr. Hallen at Lyle's Tannery in Pietermaritzburg in December, 1884, using a mixture of black and silver wattle bark supplied by Mr. Sutton.<sup>5</sup> Subsequent trials in 1886 with bark of the two species tested separately, showed that silver wattle bark was of very little value for tanning compared with that of black wattle, and the tannery refused to buy any but black wattle bark thereafter. The price of £4 per ton offered locally for black wattle bark, however, was so low in comparison with the figure of £15 per ton then being offered for Australian bark on the London market, and the local demand for bark was so limited, that growers in Natal began to consider exporting their bark.

Messrs. Angus of Noodsberg sent a small trial shipment of bark to England in 1886, but freight charges on this consignment were so high that it realised only £11. However, representations to the shipping company led to the introduction of more reasonable freight rates in the following year, and a second consignment by Messrs. Angus in 1887, of 10 tons of chopped bark packed tightly in muid sacks, realised excellent prices in London.<sup>5</sup> Encouraged by the success of this export transaction, other growers shipped their bark overseas and the quantity of bark exported rose sharply from 449 packages in 1887 to 13 972 packages in 1891, and 57 666 packages in 1895.<sup>6</sup> This profitable export business stimulated enormous interest in wattle growing throughout the Natal Midlands, and planting took place at a great rate. Apart from planting by individuals, several companies were formed during the nineties for the express purpose of growing wattle. Among these were the Town Hill Wattle Company at Hilton, the Clan Syndicate, established by the Mackenzie brothers near Cramond, and the Durban Wattle Syndicate at Hillcrest. Thus, by the turn of the century, the annual value of bark exports from Natal had risen to nearly £70 000, and today Natal provides about 60 per cent. of the total bark production of South Africa, with a value around R7 000 000.

Because wattle bark from Australia in ground rather than chopped form was fetching the highest prices on the London market at the time, an attempt was made in 1886 to float a company to grind wattle bark in Natal. This failed for lack of financial support, and interest in improving packing methods waned because freight charges at the time were based on weight, so compact packing was of no great importance in terms of expense. Sutton, however, commented

on the saving in freight charges which could be effected if the tannin could be extracted from the bark and exported as such,<sup>5</sup> and his son, W. H. Sutton, sent samples of wattle bark and wood to McArthur Scott & Co. of Glasgow in 1895 to determine whether an extract could be made from them. The firm reported having been able to make a satisfactory liquid extract from the bark, and expressed the view that, if similar bark could be supplied at a landed cost of £6 per ton, a liquid extract could be manufactured and marketed profitably in Europe. However, this offer was not taken up, presumably because the price quoted was not considered sufficiently attractive.

The formation, in 1907, of an organization called the Natal Wattle Bark Union, with the object of furthering the interests of wattle growers, was probably stimulated by the difficulties in marketing wattle bark overseas which were beginning to be experienced at that time. These marketing difficulties led to a fresh investigation of the possibility of preparing an extract from wattle bark, and the Union decided to form a syndicate to conduct experiments on extraction of tannin from wattle bark and, if these proved successful, to erect a factory for extract production in Natal. This proposal evoked a flood of correspondence in the local press from bark importing and extract manufacturing firms in England and Germany, advising strongly against any attempt to manufacture wattle extract in Natal. Though obviously motivated by self-interest, this campaign had the desired effect, and the idea of manufacturing extract locally was abandoned for the time being. However, in spite of this setback, it was not long before the production of solid wattle extract became an accomplished fact through the development of a successful process by Mr. Owen Walters of Pietermaritzburg in 1913.<sup>2</sup> The outbreak of the first World War, which placed a considerable premium on shipping space, provided the stimulus necessary to implement this discovery and resulted in the flotation of the Natal Tanning Extract Company by Messrs. O. Walters, T. J. Allison, and A. Hime. A factory was erected at Pietermaritzburg in 1915, much of the plant being manufactured locally, and the first solid extract was produced in February, 1916. Following this development, several other interests attempted to enter the field of extract manufacture, but few of these attempts were successful. Nevertheless, by 1950, there were five large concerns manufacturing wattle extract in Natal in eight factories strategically placed to serve the wattle-growing areas, and four of these factories are still operating today.

As long ago as 1892, Sutton had recommended that wattle plantations should be thinned relatively early in life to between 450 and 500 trees per acre and, ten years later, Angus was advocating a final thinning to not more than 600 trees per acre before plantations had reached five years of age.<sup>7</sup> However, few growers followed their recommendations and, after the turn of the century, plantations were often thinned very lightly and carried 1 000 or more trees per acre to maturity. As a result of these retrograde cultural practices, most wattle plantations in Natal had become very run-down by the middle nineteen twenties and were producing uneconomically low yields of bark and timber. A new body representing the interests of wattle growers, the Wattle and Timber Growers' Association, which had been formed in 1925 to replace the then defunct Natal Wattle Bark Union, therefore, made representations to the State Department of Forestry to provide technical assistance in the rehabilitation of growers' plantations. In 1928, the Department appointed Dr. I. J. Craib as the first of a series of forest research officers stationed in Pietermaritzburg and

delegated to conduct silvicultural research on behalf of the wattle industry.

Craib entered upon his task with enthusiasm and soon won the co-operation of a number of leading growers, who applied his recommendations to their own plantations. The resulting enhanced growth of these better-managed plantations served as an example to neighbouring growers, so the general standard of wattle culture in Natal improved rapidly. The realisation that yields of bark and timber could be materially improved, simply by the application of correct thinning methods, helped to dispel the natural pessimism engendered by the reduced bark prices resulting from the economic depression of the early nineteen thirties. In consequence, when the Second World War broke out, the industry was in a much better condition to meet the demands which were to be made upon it than would otherwise have been the case.

The demand for tanning materials rose sharply after the outbreak of war, and tribute must be paid to the leaders of the wattle industry at the time who imposed a voluntary system of price control, which obviated the need for State intervention to control the price of wattle bark and extract throughout the period of hostilities. When the war ended, this price control was relaxed, and the greatly increased demand for tanning materials brought about by post-war stockpiling, especially in countries which had been under German occupation, caused a rapid rise in wattle bark and extract prices. Thus, by 1951, the price of wattle bark reached the highest level recorded in the history of the industry up to that time, and this price has only recently been exceeded.

Under the stimulus of these price increases, many established growers expanded their wattle acreage, and speculators purchased vacant land wherever it was to be found and planted it up to wattle as fast as they could. This period was a repetition of the boom period in the eighteen eighties, but at this time, unfortunately, much land which was not well suited to wattle growing was planted. The result of this hectic afforestation was to increase the area under wattle, not only in Natal but also in other parts of the country, by many thousands of acres in the space of a few years. By 1958, therefore, when substantial quantities of bark from the earliest of these new plantings were beginning to reach the market, the world demand for tanning materials had fallen materially and bark supplies considerably exceeded the demand. It became necessary, therefore, for the industry to introduce a quota system controlling sales of wattle bark, and growers were then able to market only a portion of their annual bark production. Quotas were applied impartially to all wattle growers, irrespective of the length of their association with the industry. Thus, speculators who had entered the industry only a few years since, purely to exploit the abnormal price of bark for personal gain, received similar consideration to that accorded the grower whose forebears had been pioneers in the industry and had seen it through its many vicissitudes over almost a century.

The imposition of the quota system, apart from the fact that it brought about an immediate and substantial reduction in the income of all growers, had other repercussions which affected not only the individual grower, but the industry as a whole. Thus, most established growers, whose plantations were divided into ten approximately equal portions, one of which was felled each year as it reached ten years of age, could fell only as much of this mature acreage as was necessary to supply the amount of their bark quota. In consequence, some acreage had to be carried forward to the following year, to be added to the normal area of newly-matured trees available for felling in that year. This resulted in a gradually

increasing acreage of older and older trees being accumulated, with the risk that, sooner or later, some of these would become too old to make it possible to strip their bark, or, indeed, for them to produce marketable bark, even if this could be harvested.

Because of this risk, since it was clear that the potential bark production of the industry was far greater than the market would be able to absorb in the foreseeable future, growers were advised to fell their entire mature acreage each year and to market the best of the bark from this area to supply their bark quota, discarding the remaining bark but selling the timber from the whole area. They were advised further to re-establish to wattle each year only sufficient acreage to supply their annual quota in future, and to convert the balance of the felled area to other crops, in order gradually to reduce the acreage under wattle in conformity with the market demand. Many growers in Natal took this advice, and those in areas where this was climatically and topographically practicable, converted their surplus land to sugarcane, whereas those in colder areas or where the land was too steeply-sloping to plough without serious risk of erosion converted to other tree crops. Today, these growers have rationalized their wattle areas and are receiving a financial return from the alternative crops they have established on their surplus wattle land. Those, however, who could not bring themselves to fell more trees than were needed to furnish their bark quota and to discard the surplus bark, are now saddled with considerable areas of over-mature trees which are difficult to harvest and produce low yields of salable bark. Furthermore, they are receiving no supplementary income from alternative crops and much of their land is virtually unproductive. Fortunately, such growers were in the minority, and enough acreage has been converted to other crops to reduce the area under wattles in Natal today to a figure slightly lower than that obtaining at the end of the Second World War, which approximates more closely to the acreage required to supply current market requirements.

Because the demand for vegetable tanning materials appears to be gradually falling, as leather becomes more and more a luxury product and is being replaced in so many of its traditional uses by synthetic materials, intensive research is continuing with the object of discovering alternative uses for wattle tannin. Very promising adhesives have already been developed from wattle extract and, if these are adopted on a sufficient scale by the industries using such materials, the wattle industry may once again enter a period of expansion, though the the planted area is unlikely to be as large as it became after the post-war planting boom. Wattle-growing is still a lucrative pursuit in Natal, however, and is likely to remain so for many years to come.

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