OILS

THE ESSENTIAL OIL INDUSTRY IN SEYCHELLES.

The following extract is taken from the Annual Report of the Department of Agriculture, Seychelles, for the year 1923.

The following is a tabulated return showing exports of essential oils during the year :—

Cinnamon bark	14,005	litres
Cinnamon leaf	284,512	,,
Clove leaf	1,136	,,
Basilic	106	,,
Lemon grass	222	,,
Patchouli	591	,,

Cinnamon leaf oil is the article which is still produced on a greater scale than the other oils. Great progress has been made in the methods of distillation and in the treatment of plantations which are now clean weeded. A few planters have adopted the system of stripping the leaves by hand instead of pruning the bushes every year. Several strippings have already been done successfully on some estates ; but it has become evident lately that stripping cannot continue for a long time and that it has to be followed by pruning at periodical intervals, say every 2 to 4 years, to prevent the bushes from giving smaller leaves. Stripping can however in some cases be done nearly every 6 months while pruning takes a longer time (12 months) to give a crop. Planters are therefore justified in stripping and pruning alternatively. By pruning there are many twigs which are left with the leaves at the time of cropping and as the oil obtained from twigs is lighter and more valuable than leaf oil the two oils are sometimes separated and sold independently, although distilled at the same time. By stripping less weight per day's work is obtained than by pruning and the leaves being deprived of the twigs are packed more closely in the stills ; thus higher yields of oil are obtained per "*cuite*" when leaves are stripped. Each method has its supporters and detractors but the majority of planters have this year been in favour of stripping.

Clove oil has been produced on a small scale. This tree grows slowly in the poor laterite soils of the Colony and it will never be planted extensively. When the tree is pruned it does not put forth new growth as easily as cinnamon.

A little quantity of patchouli oil has been exported during the year. A few planters are becoming experts in the fermentation (2 days) and distillation of the leaves of this plant. The wet and warm climate of this colony allows it to be grown in the shade of coconut palms and bananas even near the sea and prevents it from flowering. The bushes become very thick after some time and produce abundant crops. The system of planting

patchouli as an intercalary crop between coconut palms helps to ameliorate the conditions of growth of the coconut palms themselves which have so long been neglected in the past. Distillery refuse, ash, cattle manure are spread all over the field and holes dug for patchouli at 18 inches distance between the coconut palms which are 20-25 feet apart. Thus the coconut plantations are cleaned and manured. As it is the first time that coconut palms are treated in this way they show much better growth than formerly and they give more abundant crops. The yield per acre of patchouli (4 crops) per annum is 1,400 kilos of green leaves, or 200 kilos dry leaves or 8 to 10 litres of oil. *Ocimum viride* oil has not proved a success owing probably to the competition of synthetic thymol. This plant which grew up to 6 to 8 feet high even in poor soil is being abandoned and gradually replaced by another *Ocimum* from which basil oil is manufactured. This is *Ocimum basilicum* of which there are two varieties growing in the colony, one with purple inflorescences and purplish leaves and the other introduced from France by Mr. E. Boulle with greenish-white inflorescences and pale-green leaves. The distillation of these two plants is not advanced enough to show which is the better. There is a marked difference between the small of the leaves and their habit of growth, the purple variety being more hardy. They are unfortunately both attacked by the caterpillar of a moth of which specimens have been sent home for identification. It is a yellow moth which is very likely indigenous and which seems to be more abundant during the rainy season. By making plantations when the caterpillars are less abundant and eventually by treating attacked plants by lead arsenate, the culture of *Ocimum basilicum* will very likely emerge from the experimental stage. The purple variety has long been established in the colony and its seeds are used by Indians and turned into a refreshing drink. A pinch of seeds is simply poured into a glassful of water which assumes after a few minutes a mucilaginous consistency owing to an extraordinary swelling of the seeds themselves. The plant is called locally *Toc Maria*. The yield of the purple variety is much higher and amounts to 3 kilos per ton of green leaves while the oil from the green variety is reddish brown in colour.

An attempt to introduce *Cymbopogon Martini* from India has been successful and the two varieties of this plant are now established in many gardens of the Colony. This perfume plant which produces palmarosa oil seems of much poorer growth than other citronella and lemon grasses. It will have to be cultivated in the same way as patchouli and it will not likely withstand competition of other more powerful weeds if the latter are left unchecked. It should not be forgotten that much difference exists between the cost price of an oil obtained from a wild tree such as cinnamon and that of a herbaceous plant which has to be grown in a garden. The yield of palmarosa oil reaches 1 % of the raw material, flowers and leaves, in India and if this high yield is obtained in Seychelles it will go far to compensate for the poor growth of the grass.