

for four years may yield about 7000 fruits of an average weight of 5 lb. Valued at a modest rate of 6 pies per pound, this will fetch about Rs. 1000 per acre. In the case of Mauritius though the fruits are only about 2 lb. on an average the total income can be expected to be equally good due to its earlier bearing and superior quality of the fruit. The cost of cultivation as done in the Government Farm comes to about Rs. 500 per acre so that under proper care the plantation can give an average annual profit of Rs. 125. Where local preservation of fruits and ready marketing can be arranged for, the profits will be much more. In a newly introduced locality a decent amount can be made by the sale of suckers which sell at Rs. 2 to Rs. 3 per 100.

Scope. Judged from the experience of areas where concentrated work has been done to increase the area under this crop, there seems to be great scope for expansion (in all wasteland areas) near big towns. Among the fruit-bearing plants it is perhaps the earliest and the most paying. With a long sea-coast and rail road and with plenty of road and river communications to the interior where plenty of cheap land and manure are available the pineapple cultivation has a great future.

For suckers and for information regarding the cultivation and disposal of the crop help can be obtained from the Deputy Director of Agriculture, VII Circle, Tellicherry.

CASUARINA PLANTATIONS IN CUDDALORE

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Casuarina is a tree of rapid growth introduced into India about 60 years ago. It is good as fuel which burns well though not of much value as a timber. This is grown in extent in South Arcot District owing to the ready demand for fuel at Madras to which place it is carried in boats along the Buckingham canal and also by rail. Owing to the increasing scarcity of fuel, the area under casuarina is steadily increasing.

Soil. The casuarina is planted on all kinds of soils ranging from pure sands on the edge of the sea to the stiff clay soils in the inland. Sandy-loams with a water table at a depth of about 4 to 6 feet in summer are the best for casuarina.

Gathering of seed and nursery. The fruits that ripen during December to April are gathered from the trees of 6 to 8 years old and are dried on a good drying floor protected from wind. The fruit bursts and scatters the seed. The seed is collected and dried. Ash is mixed along with the seed as a prevention from ant attack and preserved in good pots or tins. The seed is generally collected just before sowing as it is found to lose its vitality after three or four months.

Nursery. Nursery raising at Devanampatnam near the sea coast at Cuddalore is described below. More than 100 ryots raise casuarina nurseries for the sale of seedlings alone. The land is sandy and free from white ants. The lands are well dug with mammaties and left as such for a week. Again, it is redug and the nursery bed is properly prepared.

The bed is a long strip 48' to 60' long and 2½' to 3' broad. The nurseries are never manured. Casuarina seeds 1 Madras measure to 1¼ M. M. are sown in the plots in early mornings when there is no wind. The seeds are evenly sprinkled by hand and lightly covered by sand. The seeds are generally sown from the 3rd week of February (i. e.) from Masimakam day up to 3rd week of March. It is besides, covered by leaves and twigs to prevent the direct contact of the heat of the sun. The nursery plots are moistened by sprinkling with the aid of a Rosecan. For the first week, the nurseries are watered thrice a day, the first during the early hours of the morning, the second from 9 to 10 A. M. and the third in the evening after 5 P. M. After a week, the leaf covering used is removed exposing the small seedlings which are 1" to 2" high and white in colour. For another three weeks, they are watered twice a day, once in the morning and again in the evening. After a month they are watered once a day, either in the morning or in the evening for another period of 5 to 6 weeks.

After 60 to 75 days, the seedlings are pulled out and replanted in Nursery plots 48' to 60' long and 2½' to 3' broad. Even *these plots are not manured* but are well dug with mammaties. The plants are watered once a day for a month. Later, depending upon the weather they are watered every day or once in two days. Thus, after 6 months from the date of sowing i. e., after August, they are fit for planting in the fields, when the seedlings will be about 1¼' to 1½' high. In one bed, there will be about 12,000 seedlings, of which 6,000 to 8,000 well-developed ones are first pulled out as "first rate" seedlings and then the rest classed second rate, after another period of 3 to 4 months. The seedlings are generally sold from Rs. 0-12-0 to Rs. 1-8-0, priced according to the vigour of the seedlings and also to the buyers' demand at that time.

Field Planting.—The plants are usually put in at distance of 4½ feet apart each way; but in some good soils, they are planted 3' × 4½'. Thus 2,150 to 3,250 seedlings are planted in an acre.

The usual time of planting is during the rains from October to December, the earlier planting being better. In places where water stagnates, the planting is done just after the rains.

Generally, the fields to be planted receive no preparatory cultivation but small pits 9" in depth are dug and the soil loosened. Then holes are made with a blunt stick to insert the seedlings.

Watering.—The plants are watered both in the morning and in the evening for about 10 days if there is no rain. Subsequently, watering is given once a day for another 10 days. The plants establish themselves by then and are watered twice a week. Till the next rainy season, the plants are watered once or twice a week according to the prevailing weather. In most cases plants are not watered in the 2nd year.

Other Cultural Operations.—The soil is loosened between the rows of plants during the second and third year by working the country plough. About 3 years after planting the lower branches of trees from 6' to 8' are lopped off and sold. The trees that do not come up well at the end of four years are removed and sold. This thinning, generally reduces the number by 25% to 35% and finally there will be about 1,500 trees per acre.

Harvest. The plantation is cut at the end of 8 to 10 years when each tree will fetch on an average Rs. 0—6—0 to Rs. 0—8—0 and thus a net income of Rs. 560 to Rs. 750 is obtained in an acre. The proceeds from the lopping of the trees and the proceeds from the sale of thinned out trees will generally cover the cost of seedlings, planting, watering and watchman's wages.

CHICKEN POX AND ITS TREATMENT *

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There are a number of diseases that work great havoc with the amateur poultry keeper in India especially in the villages where the vitality of birds at best is very low due to poor feeding, promiscuous breeding and bad housing conditions. In my experience I have found that chicken pox perhaps takes a larger toll than any other poultry disease. Its ravages are not considered so serious as that of fowl pest because it does not do its work as dramatically as the "Angel of death". This disease, like the poor, is ever with us and many people take it for granted as some do itch and scabies for example, or the proverbial fleas on a dog. * But anyone who has made a study of poultry rearing in the villages will agree with me that thousands of chicks, especially, are claimed by this disease every year.

In the early days of our poultry work I considered this one of the major problems we had to solve. As surely as the cooler days of January began to wane and evidences of the hot weather began to appear, chicken pox would be right around the corner to say her "How-do-you-do". After considerable experimentation we have learned to control this disease with considerable success and no longer consider it one of our major problems to deal with.

Prevention.—Prevention is again our best weapon of defence, as it is, in our poultry-disease control. Chicken pox has its very noticeable outward lessons and consequently many people think that it is an external disease like a pustule. This however is not the case as it is a disease of the blood and apparently makes its appearance without any communication from without. It naturally assumes a more virulent form when additional foreign bodies are communicated to the

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