

A Note on Tobacco cultivation in South Kanara.

Tobacco is grown on sandy soils near the coast on an extensive scale. The strip of land between the hills and the sea near the Pallikara Railway Station produces tobacco which fetches a higher price than that grown in other places. The tobacco grown in these parts, is used for chewing and for snuff making. There are two varieties grown in this place. The variety used for making snuff is known by the name of "Panan," and that used for chewing is called "Kuthapidian." The leaves of the former are broad and those of the latter narrow and long. The veins of the latter are also very thin, and the tips of the leaves hang down. The Kuthapidian variety is grown in places to the east of Pallikera and Hosdrug at a distance of about 6 miles from the sea and is used only for chewing, while the Panan variety which is grown near the sea coast, although used for snuff chiefly, is also used for chewing.

Seed beds :—Seed beds are prepared in the compounds of the ryots. The plot selected is first dug with mammatti in the month of July. The soil is then ploughed and levelled, stones and other rubbish picked out and raised seed beds made. About 10 days before sowing, the bed is very heavily manured with a mixture of finely powdered cattle manure, ashes and old fish. The ryots say that ashes obtained by burning parts of the coconut tree are harmful.

Sowing in seed beds :—In the month of August the seed is sown broadcast evenly mixed with about 3 or 4 times its quantity of ashes. The ashy colour of the seed beds helps to find out if portions of the seedbed have been sown uniformly. The seed bed is immediately hand watered. The beds are then covered with plaited coconut leaves and are watered regularly unless there is rain. The ryot sows usually all the seed he possesses, so that any excess seedlings could be given to the neighbouring ryots who require them.

Care of seed beds :—Within about 12 days after sowing the seedlings germinate, and then the coconut leaves are removed

whenever there is no rain. The young plants make very slow growth in the initial stages and have to be attended to with great care. The seed bed is very carefully weeded after a fortnight. After a month if the seedlings appear to be too thick they are pulled out carefully and planted, after they have put forth 2 or 3 leaves, at a distance of about 3 to 4 inches in similarly prepared beds. The seedlings will be ready for transplantation in about 60 days.

Preparation of the land for planting :—In the month of October when the harvest of paddy is over and the fields are sufficiently dry, the paddy stubbles are removed and the land ploughed two or three times or dug once with mammatti so as to expose the soil to the action of sun and air. Long beds and channels are then made with mammatties. The channels are one foot wide and 9 inches deep. The beds are made 4' and 3' wide alternately so that water may be carried in mud pots conveniently through the 4' wide beds, when the plants are grown up. By walking through the 4' wide beds watering can be done to the two rows on either side. By this method of forming beds and channels there is economy of space. The channels are then nearly filled with well rotten cattle-manure and decayed paddy-stubble and covered with a layer of earth.

Manure :—Any one who has once travelled from Nileshwar to Mangalore by rail during the months of October and December, will never forget the unpleasant smell of the decomposing fish manure from the paddy fields on either side of the railway line. The swarms of restless flies constitute a second feature. In the month of October when the sea gives a good harvest of sardines, fish is purchased at a cheap rate and stored in paddy fields in large pits close to the place of planting. Some ryots mix ashes along with the fish and bury in pits to help decomposition. These pits are covered with earth or wooden planks. Thorns are spread over the pits to make them inaccessible to jackals during nights. 25 baskets of decomposed fish manure are required for 1000 plants. Cattle manure is chiefly used in the beginning. Green leaves and paddy stubbles scraped off from the paddy fields after harvest are put in

the cattle sheds as litter. Nearly 3 cart-loads of cattle-manure are applied to 1000 plants.

Sometimes ryots experience great difficulty in getting fish manure at a cheap rate as the supply of fish from the sea is not always certain. Nitrate of soda which is obtainable at Mangalore is slowly taking the place of fish manure. This manure is applied in small doses round each plant.

Method of planting and irrigation:—About 2 months after sowing the seed, the seedlings are ready for transplantation. Before the removal of the seedlings from the nursery, the beds are watered so that the seedlings may come out easily without any injury to the roots. The planting is always done in the evening, so that the plants have the benefit of the coolness of the night. The best seedlings from the nursery are pulled out with great care and planted in the channels a cubit apart. Soon after planting, the plants are watered. Whenever the plants are found in a wilted condition, watering is resorted to very regularly, even at intervals of 3 or 4 hours for the next 4 or 5 days. Any blanks due to deaths of seedlings, are filled in. The frequency of watering is lessened as the plants get themselves established.

Hand watering by means of mud pots is the method usually adopted. Circular pits with an inclined slope at one end are made very easily in the sands to take water from. The water-table is very high in these places. Water is poured over the leaves and the ryots say that there are two advantages in doing so. Firstly the leaves which would otherwise grow erect and narrow are forced to bend a little and are broadened. Secondly the bitter taste of the tobacco leaves is lessened by pouring the water over the leaves. Watering is done very early in the mornings with the idea that the leaves should not be allowed to absorb the dew.

After-cultivation:—About 15 days after planting, when the plants have established themselves the earth round each plant is removed by hand and a handful of fish manure is applied and the

whole covered with earth. Every time the manure is applied, a watering is given. This operation is called "Nullivekal." After another 15 days the plants are manured in the same way with a mixture of cattle and fish manure each plant receiving two handfuls. This is called the first operation. The second operation begins after another 15 days when about 3 handfuls are applied to each plant. The plants are watered regularly every day. After the second operation, earthing up is done from both sides of the channel. The third operation begins only after topping. About four handfuls of fish manure are used this time. The final earthing up is done after the third operation. After topping, the plants are irrigated thrice daily for a few days. The first formed beds are now converted into one foot wide channels by earthing up. The ryots think that the success of the crop depends a good deal on the care and regularity with which the above operations are done.

Topping and suckering :—Topping is done only when the plants have begun to flower and when the terminal bud is fully seen. From 12 to 16 leaves are kept in each plant and the topping is done with knives. One or two of the best plants in the field are now selected and left without topping for seed purposes. These plants are cut only in the month of February when the pods attain maturity. The bunches of pods are cut and dried in the sun for about 3 or 4 days. The pods are then removed from the bunches, tied up in a piece of cloth and hung from the ceiling of the house. The seeds are removed from the pods only at the time of sowing. Suckering is done only after the last manuring, i. e., after the third operation. Suckers are removed in most cases only when they have produced 6 or 7 leaves. The terminal bud and the suckers after removal from the plant are allowed to decay. They form an excellent manure for cucumber, chillies and other vegetables.

Harvesting :—This is done when the leaves become brittle. A day previous to harvest watering is stopped. Sand is sprinkled over the leaves of the plant both before and after cutting. This is done to increase the weight of the cured leaves for marketing.

Harvesting is done when the sun is not too hot, either in the morning or evening by cutting the plants as a whole close to the ground. After cutting they are left in the field for about an hour or two by which time the leaves get wilted and this facilitates bundling.

Drying and curing :—Before they begin to harvest, pandals are erected in the fields or near the houses of ryots. For about 3 days the plants are heaped in the pandal, and kept in an erect position very close together. On the third day the plants are taken and hung in the pandal by means of aloe strings. The leaves remain hanging for about 25 days. About 10 days previous to their removal from the shed, the plaited coconut leaves are removed to allow sun and air. When the leaves are copper-coloured they are removed from the sheds, the leaves peeled off from the stalks and tied into bundles, each containing about 200 leaves. This is the method of curing tobacco used for snuff making. While removing the leaves from the stalk, a sort of grading is also done. Four or five of the lower-most leaves are bundled separate. These are used for making *Beedies* and are sold at a lower price. The tobacco used for chewing is subjected to further treatment in some places near Hosdrug. After removing them from the shed and peeling them off, they are bundled and heaped in plaited coconut leaves. Thatching grass is spread over the tobacco leaves and some weight placed over these for three or four days. By thus spreading grass over these bundles a fine aroma and a good colour are obtained. The stalks of the tobacco plant are cut into small pieces and when decayed are used as manure for coconut palms.

Marketing :—It is very rarely that Coimbatore tobacco is patronised by the South Kanara ryot. The tobacco grown here is consumed locally and large quantities are exported to Mangalore. Merchants come from Mangalore—generally the middlemen—and purchase wholesale from the ryots. Cured tobacco is sold at Rs. 10 to Rs. 12 per thulam (30 lbs.); 1000 plants will yield on an average 10 to 12 thulams of cured tobacco.

K. Govindan Nambiar,
Student, Class III.