

We understand that small stocks of Natal Java Indigo seeds on hand at the experimental station at Peradeniya, Ceylon, would be made available for those who wish to experiment with that plant, at 25 cents (4 annas) per ounce to cover cost of packing and postage. Supplies of up to 4 oz. will be allowed to each applicant and it is estimated that this should be sufficient to plant 1/16 of an acre, but as the stocks of seed are extremely limited, applications should be sent in early. It is thought May-June would be the best time to sow the seed and full instructions will be sent with each packet of seed.

We are extremely sorry to announce that B. Satyanarayana Sastri, a promising student of the present first year class died on the 23rd ultimo at Chodavaram, Vizagapatam. He has been ailing from dyspepsia for over a month and went home for treatment. We offer to his father-in-law Mr. M. Subba Rao, B. A., B. L., First Grade Pleader, Chodavaram—and his other relatives and friends our sincere condolence.

***A brief recollection of the life of a South Canara Ryot.**

Ryots of any locality are the simple and humble children of their surroundings, trying to take advantage of Nature's blessing and to avoid as far as possible Nature's curses in growing crops and thereby earning a livelihood. To understand the surroundings of a Canara ryot, one should know the physical features of the district.

*Brief note of a paper read under the auspices of the Students' Club.

Canara is a long strip of land in the Malabar Coast lying between the Western Ghats and the Arabian Sea. It is about 150 miles in length from North to South and 25 miles in breadth at its narrowest and 50 miles at its broadest. It is a very uneven district with numerous rivers taking their source on the Western Ghats and flowing in a westerly direction into the Arabian Sea. It is a district of hills and dales. It is a district which is full of networks of river basins, valleys and hollows varied with hills, ridges and elevated plains. In such river basins, valleys and hollows, under the shade of the coconut trees lives the peaceful and contented paddy grower of South Canara. The ryot always lives in his land. There is nothing like village sites in Canara as we find in southern districts. The houses in the villages are scattered about and each farmer will have his homestead in the midst of his holding where he lives with his family permanently. This is the chief peculiarity of South Canara and Malabar. Canara is entirely a paddy growing district and the crop is rainfed. On an average, the annual rainfall is 120 inches and the major portion falls during the south-west monsoon. The distribution of rain is as follows, hot weather rain,—about 6 inches in April and May, south-west monsoon,—about 95 inches from June to September, and North-east monsoon rain,—about 20 inches from October to December.

*Soil and Classification of land :—*The soil of Canara is mostly a shallow laterite soil having a very thorough drainage. But here and there along the coast, sandy soils are found and also some stiff soils in the interior parts. The paddy lands of the district are divided into four main classes such as *Patla*, *Bailu*, *Majalu* and *Bettu* lands. This classification is partly based upon the number of crops raised in a year and partly on the level of these lands. *Patla* lands are the most low lying lands which will be under water during the first crop season, so no cultivation is possible then. Such lands are not found in all villages and form only a minority. They are generally found near back waters and river basins and only one paddy crop is raised. *Bailu* lands are higher than these and in this class of land two paddy crops and sometimes a third crop of pulse are taken in a year.

Majalu lands lie a little higher than the *Bailu* lands and one crop of paddy and another of pulse are taken in a year. *Bettu* lands are situated higher than *Majalu* lands and a single crop of paddy is taken. The above classification is a general one and slight changes in the number of crops might take place according to the availability of water or moisture.

Seasons:—The *yanelu* or the first crop season commences in June and ends with September—October; the *suggi* or the Second crop season begins with October—November and ends with January—February. The third crop known as *Kolakai* is raised during hot weather from March to May. At this season invariably a pulse crop is raised on bailu lands and in very rare cases paddy is raised wherever water is available. First crop paddy is grown on all three classes of land except patla lands where no first crop is raised on account of their submersion under water.

Systems of paddy nursery:—The agricultural year begins in April and the first work of the ryot is to prepare the nursery for the first crop. There are three systems of preparing nursery (1) Dry nursery (2) Wet nursery with the aid of irrigation (3) Rainfed wet nursery. After the harvest of the previous paddy crop in February, the ryot ploughs the land intended for dry nursery in dry condition and tries to conserve moisture, applies ashes and cattle manure to these plots and sows the seed in about the middle of April. The seed sometimes germinates if there is sufficient moisture in the ground, or the ryots get some hot weather showers in April-May which help the germination of these seeds. Hot weather wet nursery is sown in May and irrigated from tanks or any other water source. The third, the rainfed wet nursery is sown in June after the setting in of the monsoon. As soon as the monsoon sets in about the end of the first week of June, the ryot prepares his best lands and transplants them with dry nursery seedlings, then he transplants some more lands with seedlings from the second kind of nursery and lastly he pulls out seedlings from rainfed wet nursery and transplants them. From the middle of June till the end of July the ryot will be busy with first crop work. These different kinds of nurseries, sown at different times, help the

ryot to adjust his work evenly and properly. After transplanting till the harvest time in September-October the ryot has very little work. In August he will direct his attention towards his coconut garden. He will open the bottoms of coconut trees and manure them with green leaves. He is also engaged in collecting cattle manure in his loose boxes for the second crop paddy.

Second crop nursery:—About the end of August or early in September, the ryot prepares his nursery for the second crop of paddy. For this purpose, he keeps a portion of his bettu land without raising the first crop, or prepares his nursery about the end of September, after harvesting a portion of his first crop paddy in bailu land. In fields intended for nursery, he puts an early maturing variety during the first crop season.

Second crop season:—After the harvest of the first crop in September-October, he immediately prepares his bailu lands for the second crop, manures them and transplants them in October-November. The harvest of this crop takes place in January-February. Generally for the second crop a short duration variety is put. In Majalu lands after the harvest of the first crop, a pulse crop such as horsegram is taken and bettu lands are left fallow.

Water supply:—The first crop in South Canara is entirely rainfed and for the second crop rain is supplemented with flowing water. Each village will have one or more streamlets which take the extra rain water to a neighbouring river during the south west monsoon. In November these streamlets are bunded at convenient distances and the flow is stopped. Water collects and is utilised for irrigation purposes. These streamlets serve as drainage channels during the first crop season and as a source of irrigation during second crop season. Sometimes water is lifted from rivers and tanks with picotah for the second crop.

Third crop season:—After the harvest of the second crop from bailu lands, a pulse crop is taken during the hot weather and when there is water facility a third paddy crop is sometimes taken. This

crop is harvested in April-May and the ryots agricultural year ends with this.

Source of manure:—The important and the only manure of South Canara is the cattle manure from loose boxes. This system of collecting manure is universally adopted in the district and Canara is the home of this mode of collecting manure. This system is the outcome of the surroundings of a Canara ryot. In a place having 120 inches of rain with strong winds, ryots cannot tie the cattle in open sheds. They should have strong and well built cattle sheds. When there is no work and when there is heavy rains, cattle remain in these sheds. Just after rain sets in, the ryot gets a lot of green grass and for wetland work buffaloes are better suited than bullocks. These buffaloes eat a lot of green grass and void large quantities of urine and loose dung. The cattle shed soon becomes dirty and the ryot thinks of preventing his animals from becoming dirty. Canara is a hilly district and is full of vegetation. The ryot brings green leaves from hill sides and spreads them over the dung and urine. This forms a very good manure and plays an important part in the paddy cultivation of the district. In the months of August and September ryots are busy in collecting manure for their second crop paddy. At that time lot of green litter is available in the common village forests and *Kumki* lands.

Kumki lands and common village forests:—The Government waste land lying near a cultivated area is left to the use of the adjoining ryot free of assessment. From this the ryot brings green leaves for his cattle shed. Such lands are called *Kumki* lands and the extent of this is about 100 yards from the boundary of an assessed land. In certain villages we find common village forests. Government has given to the ryots certain waste lands for grazing cattle, bringing litter for cattle sheds, and collecting thatching grass for the homesteads of ryots. This forms the common property of the villagers and it is managed by them. But of recent years, on account of greater demand for land, such lands are becoming patta lands and are being assessed. For the first crop during the heavy southwest

monsoon, ryots are not in favour of applying much manure to their lands except to high lying lands. For the second crop all available manure is applied. He has ample green leaves in July, August and September for litter and ample green fodder for his cattle and the mire loving buffaloes find the litter in these loose boxes, a warm bedding during the rainy season. A very superior quality of manure is got from these loose boxes. The district is not a very fertile one and it will be an average one. Taking both the crops, an acre of bailu lands might yield 2500 lbs. to 5000 lbs.

Holdings and the agricultural classes of the district :—A good portion of the cultivated area is in the hands of the *Bunts* who are both the land owning and the cultivating class of the district. By this I do not mean that no other castes own land and cultivate it. Every caste from the Brahmin down to the Pariah owns land and cultivate, but the *Bunts* are known as the agricultural class of the district. Jains, Billawars and Christians also cultivate a good portion of the land. The farmers may be divided into 3 or 4 classes :—

- (1) Tenant farmers are those who cultivate the land of others;
- (2) tenant and wargadar farmers are those who cultivate their own land, in addition to this, they cultivate others' land. Their own land is not quite sufficient to maintain their family.
- (3) Moderate wargadars cultivate their own lands which is sufficient to maintain their families.
- (4) The big wargadars cultivate a portion of their lands and the remaining portion they let out on lease.

The 1st and the 2nd classes are not in affluent circumstances, but the 3rd and the 4th classes of farmers are in moderately good position. The wealth is well distributed in South Canara. We have no big zamindars or mirasidars as we have in Malabar or Tanjore. Another peculiarity of the district is that we have very few absentee landlords. Most of the landlords are themselves farmers and live in their land and see what their tenants are doing. They are in a position to know the requirements of their lands and tenants. They are in a position to know who is a good tenant and who is a bad tenant. This system of close association between the landlords and tenants has a lot of advantages to both parties. Another factor which might have had

some influence on the agriculture of the district might be mentioned. Most of the agricultural classes such as jains, bunts, billawars follow a joint family system. According to this system, the inheritance to the property passes from uncles to nephews in the female line. All the members of the family by the common ancestress live together and the family property is not divided. The senior most member of the family is the manager of the family property and he as well as other members work for the common good of the family. As the property was impartible and all able-bodied members worked for the common good, cultivation of the family property was very effective and paying. These joint families had land, capital and men to work, the three essentials of wealth. But of recent years some change is taking place. Management of the family property is not properly done. Dissention arise and family members do not take part in agriculture. Hired labour is not efficient, so agriculture suffers. Home cultivation is given up, lands are given on lease to poor ryots who have neither the capital nor the energy to do work. If such things are allowed to continue, it will affect the agriculture of the district as well as the prosperity of the agricultural classes.

Agricultural labour:—The most important class of field labourers is the Holaeya or Pariah class. They form a very large proportion of the population of the district and are eminently well suited for wetland work. They contribute a large share to the prosperity of the agricultural classes. These holaeyas are attached to their agricultural masters in two ways such as Mula Holaeyas and Salatha holaeyas. Mula holaeyas are attached to the family of the ryot or to the land itself from time immemorial. Salatha holaeyas are attached to their masters on account of certain debt which they borrow from their masters especially at the time of their marriage. The latter as soon as the debt is paid off is free to go wherever he likes, but the former cannot so easily change his master. Although, there is no legislation to keep these Mula holaeyas from going away, yet custom keeps them attached to their masters, but of recent years the custom is slowly giving way to better wages outside the district. These Holaeyas are very good workers and identify themselves with the

prosperity of their masters. Wages are paid in kind, a man gets 2 lbs. of rice and a woman $1\frac{1}{2}$ lbs. per day. In addition to this, they get presents in the shape of clothes and grain at the time of harvest and festivities. The district being an entirely paddy growing one, there are certain slack seasons and also during the heavy rain of the south-west monsoon, it is difficult to get any outdoor work. Such being the case, these poor people suffer and of late years, they have begun to go out to the Coffee and Rubber estates of Coorg and Travancore. Now the ryots have begun to feel the labour difficulty.

Leases :—There are three systems of leases, viz., annual, periodical and permanent. Landlords prefer to give their lands on annual leases, but tenants always wish to have periodical or permanent leases. Generally landlords receive some money from tenants and give their lands on periodical and permanent leases. Periodical leases run for 10, 15 or 20 years and sometimes to the life period of a man. If the tenant does any improvement in the land, the landlord will have to pay for it at the end of the term of the lease, and he cannot evict his tenant or increase the rent before the term expires, provided the tenant pays his rent regularly. The same conditions hold good in the case of the permanent lease, but the tenant and his family enjoy the land permanently instead of a period. In this case, the landlord almost loses his hold on the land, but he has only a right on the fixed rent. On account of the great demand for land for cultivation, a certain amount of shifting of tenants is going on, but the landlords care much for the good opinion of their tenants. If a landlord often shifts his tenants, he loses the confidence of his tenants and becomes low in the estimation of other landlords. So even if the leases are annual there are tenants who have been attached to certain landlords for generations and generations. The connection between the landlord and the tenant does not stop with the land alone, but it runs in the communal life of the village. They recognise one another's importance in the social life of the village. The landlord fully knows that the good opinion and the adherence of his tenants are quite essential for his reputation as a trustworthy landlord. Such being the case there is harmony between the landlords and the tenants in most cases.

Other crops :—Next in importance to paddy comes coconut. Every ryot in S. Canara will have a few trees around his house and on the bunds of his paddy lands. This is a very important crop to a ryot and he cannot comfortably get on without it. It forms an important part of his diet. There is a good supply of fish all along the district and the coconuts supply the fatty constituent of the food of the poorer and the middle classes of people who are not vegetarians. As the cattle of the district is very poor, much ghee cannot be had. So nature has supplied these people with a cheap form of fatty food. Sugarcane cultivation is slowly coming into prominence in the district. One finds large areas under arecanuts in the interior part of the district.

This brief note on the agriculture of the district is written to remind the students that agricultural practices vary from district to district and certain practices are the outcome of natural surroundings.

K. T. Alwa.

Planting of single seedling of paddy.

The following extract about the paddy seedling experiment taken from the Annual Report of the Chinsurah Agricultural Station for 1912-13 seems to bring to light that success of single planting of paddy depends upon certain conditions.

“Paddy seedling experiment :—The transplanting of one, two and four seedlings was compared during the last three years viz., 1909-10, 1910-11 and 1912-13. In order that one seedling may give its maximum return transplanting should be done sufficiently early to allow the plants to tiller to its greatest capacity.

In the first year one seedling gave the highest outturn, but in the second year when transplanting had to be postponed to