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A South Kanara Wet Land Holding.

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Attavar Kanthappa, a Bhilava by caste, owns $13\frac{1}{2}$ acres in Kankanady village, $2\frac{1}{2}$ miles from Mangalore in South Kanara District.

Of these, $6\frac{1}{2}$ acres are double crop wet lands and 7 acres, single crop wet lands. The former are all low-lying fields abundantly supplied with water, the rainfall being supplemented by water from channels. In these wet lands two rice crops known as Yenelu and Suggi are raised followed by a pulse crop of horsegram. The wet lands slightly slope to the South and are surrounded by hills on the North-East. It is on these slopes the single crop lands are situated on terraces and are known as *Bettu*. On these lands one crop of rice is cultivated during the South West Monsoon.

The soil is derived from laterite and it is a clayey loam. Moreover these lands are rich in humus. The single crop wet lands are somewhat red in colour and are heavily manured.

The methods of treating the double crop and the single crop wet lands differ a good deal. Soon after the break of the South West Monsoon the wet lands are ploughed thrice before raising the nursery and thrice before transplanting. Just before the final ploughing ashes and farm yard manures are used. Daincha has been tried in

one or two fields and the owner has found the value of it, owing to the increased yield. Daincha seeds are sown broadcast about the month of February after the harvest of second crop. With the help of moisture in soil, the Daincha seeds sprout well. Just about the break of monsoon the plants are pulled and carried to the loose box cattle shed where they are put to rot. A portion of the crop is also ploughed into the soil in the green state.

The single crop wet lands are also treated in the same manner as double crop fields at the early break of monsoon except in the matter of ploughing. One who cultivates the single crop wet lands first during the early part of the monsoon, before putting his hands into double crop wet lands, is a most successful farmer. The lands are well ploughed twice, after which fish manure is applied. At the time of transplanting ashes are applied to the field and levelling done.

In coconut gardens the ground round the foot of trees is dug to a small depth and the pit is filled with fresh leaves and then covered. Salt is of much value as a manure for these, as also fish manure.

The house of Kanthappa is well and nicely built, being intended for the reception of friends and relatives, and all articles of furniture are decent and well arranged. The verandah is neatly kept and on the right side of it there is a room. As you enter there is a spacious hall where a cot, a bureau and other pieces of furniture are arranged neatly. To the right of the hall, there is an entrance for a small room which is used as a women's compartment. This farm house is sufficient for a small family like that of the owner of the farm, who has a brother as well as two female members. In front of the cottage there is an extensive court yard where straw is stored and at harvest time this court yard is used for thrashing paddy also. To the left of the cottage there is a shed for the cattle where the droppings are collected in the pit.

The garden round the new house, is a small one about one quarter of an acre in extent and contains coconut, Jack, mango and pomelo trees. The front portion of the house has a spacious court yard and to the right side there is a building used for storing,

The chief crops are rice, sugarcane, green-gram, horse-gram and black-gram. The rice crop is raised in rich low-lying lands, or *bailu* and in high lying lands or *bettu*. The farmer commences work with ploughing *bettu* lands in the beginning of June. He devotes undivided attention to his rice fields, the produce of which forms by far the greatest portion of his annual income. When the fields have

been properly ploughed they are manured and a final ploughing, given to cover the manure.

Preparation of the nursery. The agricultural year begins in April and the first work is to prepare the nursery. A fortnight before the harvest of the second crop a pulse crop is sown broadcast among the ripe paddy crop and is removed about April. The farmer then lays the field open to the powerful rays of the sun. At the same time, he sows seed in one of his fields in order to prepare a nursery to serve, if possible, for planting the whole of his farm; 84 lb. of seed sown broadcast is enough to transplant two acres of land. The seed remains in the ground almost unchanged awaiting the arrival of the "Mango showers". This is called "Hudi Neji" or dry nursery. As it is usually not always possible to arrange for a dry nursery, he sows the seed also at the beginning of the monsoon and makes what is called "Nir Neji" or wet nursery. In the experience of the ryot a nursery prepared with the help of tank water before the monsoon is the best and most remunerative. And in the absence of such water facilities, the dry nursery is the next best and is almost as good. The hot weather wet nursery is sown in May. Thirty days after the appearance of seedlings above ground the crop is about a foot in height and fit for transplanting. During these thirty days, the rice fields other than those set aside for the preparation of nurseries are ploughed, manured and got ready for the reception of the seedlings removed for transplanting.

Transplantation. Single seedling transplantation is not followed for two reasons. Firstly the women doing the transplanting usually plant in bunches in order to rush through the work. Secondly the farmer is afraid that in single transplantation there is a probability that the seedling may die, should it be attacked by the "silver shoot" disease.

After-cultivation and harvesting. The first paddy crop both on *bailu* and *bettu* lands being rain-fed, there is no system of irrigating the field. Weeding is quite unknown. Two months later about the middle of September, the crop comes fully into ear and a month later is ready for harvest. All this time the fields are under water which is drained a fortnight before harvest. Care however is taken to drain off the water for a space of three or four days immediately after the seedlings are transplanted.

Second crop preparatory cultivation. As soon as the first crop is harvested, that is, about the middle of October, the fields are again ploughed for the second crop in wet land and fifteen days are allowed for the previous rice stalks to decay thoroughly.

Preparation of the seed for broadcast sowing. Before sowing the bundle of seed is immersed in water about a foot deep and weighted down by placing stones over it; after twelve hours it is removed and the following day the seed is well mixed with thick cow-dung water and heaped and weighted down. The third day the seed is sown broadcast on the fields containing perhaps half an inch of water. After the fourth day water is let in. If any rain falls during this time it is injurious to the rice crop. If a nursery has been made, the seedlings are transplanted after the lapse of four weeks from the time of sowing. This crop is irrigated by water channels that run across the fields. After the harvest, about the month of January a pulse crop like horse-gram or black-gram is raised.

Sugarcane cultivation. The next important crop is sugarcane which is planted in Majalu lands where only one crop of paddy is raised.

Preparatory cultivation. In December after the harvest of the previous crop, the land is ploughed twice and levelled. Trenches $1\frac{1}{2}$ feet deep and $1\frac{1}{2}$ feet wide are made. The distance from the middle of one trench to that of another is about 3 feet. In the trenches compost of fish manure and ashes is applied. Before placing the mixture in the trenches the compost is allowed to rot well.

Preparation of sets for planting. The next thing is the preparation of sets which is done in one of two ways. The first way is the following: The setts soaked well in water are placed on a raised platform by spreading straw on them. After twelve days or so the setts germinate with three or four eye-buds. The setts may also be planted directly without being soaked in water. The ryot has found the latter way better, as the setts germinate earlier with stout tillers.

Planting and first manuring. The setts which are ready for planting are placed in the trenches leaving four inches space between each set and the field is irrigated immediately. For a month after planting watering is done every alternate day.

Interculture and manuring:—In March again fish manure compost is applied on both sides of the row of canes and covered with earth and watered. A third dressing of manure is applied at the beginning of the monsoon and the crop earthed up and watered as before. By the time the rains set in, the manuring is completed and the trenches are filled up. Subsequently earth is taken from between the rows of canes and put at the root of canes gradually as they grow. Deep drainage is made as water is never allowed to stagnate in the trenches. As the

canes grow the dried leaves are removed and tall growing canes propped up. If the loose leaves are not removed, the ryot told me, the buds do not sprout well and thus spoil the canes. Moreover small black ants bore holes in the cane at the node and eat into the soft portion and thus hasten easy lodging of the canes.

Harvesting the produce. The crop is harvested in December and crushed with an iron mill worked by bullock power. The produce of jaggery this year has been estimated at 140 maunds. Five varieties of canes were planted, Red Mauritius, B. 208, 147, 3412, 6450 and Fiji B, this year at the advice of the Agr. Inspector, Mangalore.

To a certain extent, rotation of crops is done in both double and single crops wet lands by raising pulses like horse-gram and black-gram in the former after the second crop and in the latter with the first crop. Last year Cambodia cotton after the first crop on *bettu* was tried with good success, but was given up as there is no demand for such crop locally.

His cattle consist of three pairs of buffaloes, one breeding bull of Kathiawar breed and a pair of cows of Kathiawar and Nellore breeds. The breeding bull which was passed by the Agricultural Department is a nice and short one, 5 years old in age and I learn that for every serving 8 as. are charged. The buffaloes are big and strong. One pair can work whole day with an interval of three hours of rest. The prices of buffaloes are Rs. 150 and Rs. 100 and Rs. 60 respectively. Early morning all the working cattle are fed with dried stalks of gram and rice washings and straw. In the afternoons after half a day's work, horse gram well ground with beaten rice mash is given and again dried stalks of gram. In the rainy season, for grazing purposes, grass lands are taken on lease for a period of two or three months on payment of a nominal sum of rupees twenty five. The cost of upkeep of working cattle during the agricultural operations, becomes very high - 3 pairs of working buffaloes costing:—

Straw	Rs. 1 12 0
Horse gram	0 12 0
Beaten rice mash	0 4 0
Dried stalks of gram	1 8 0
2 Kudthas of oil	0 4 0
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Total upkeep	4 8 0

i. e., on an average Rs. $1\frac{1}{2}$ per pair of buffaloes per day. On other days when there is no field work the cost of upkeep is less.

He keeps the following implements and tools: Ten Ploughs country made and very light, with shares six to nine inches long, generally made of iron. To make all the accessories the holder has to pay the makers in kind; ploughs cost Rs. 15. They are made of Mango, Banyan, or Nux Vomica wood.

He has 5 yokes made of jack. They are light as the cattle are weak and low in height. They cost rupees ten and the wood is of "Honne."

Levelling board, flat wooden board used to level the field before transplanting. It is made of mango plank. The cost of two levelling boards is two rupees.

Three wooden mallets used in bundling rice into muras of 84 lbs cost annas twelve.

5 Mamoties with a long handle and the blade in the form of a trapezium. The cost of blade itself is rupees six.

Pickaxes three, cost rupees ten.

Kodali or axe used for chopping of trees two, cost rupees two.

Wooden thrashing frames used for thrashing paddy. It is in the shape of a window with wooden bars for thrashing paddy the frame is placed on a four legged cot. There are two which cost rupees ten.

Riddles for sifting the paddy, ten, cost rupees two and half. They are made of inferior rattan.

Baskets of moderate size to carry soaked paddy and manures, twenty about rupees five.

Mortars for beating rice made of wood with iron pegs at the bottom to fix them on the ground, cost rupees fourteen.

Cultivation is carried on by permanent and casual labourers. There are two hereditary servants who are "Salada Holeyas" and who are bound to their master by a debt. These "Salada Holeyas" are given one meal during heavy agricultural operations. But permanent labourers all the days in the year are given food thrice a day and they

are bound to do any work all the year round. In the case of "Salada Holeyas" their wages are subject to deduction for the advances made on marriage and other ceremonies. For gathering the harvest and storing it up, hired labourers are employed and are paid at the rate of two seers per head per day. There are five permanent labourers including the Salada Holeyas. To the labourers cash payments are unknown except occasionally. In the case of permanent labourers there is nominal annual payment of rupees twelve to be set off against interest on the debt. On festival occasions presents of rice and other eatables are also made. The permanent labourers are given free lodgings, on the farm.

Generally farmers of South Kanara do not keep accounts. An approximate account is given below of an acre of double crop wet land.

1st ploughing 5 men	...	...	Rs.	1	2	4
2nd ploughing 5 men	...	...	"	1	2	4
3rd do.	...	...	"	1	2	4
Cost of ashes 1 cart-load	...	...	"	5	0	0
100 head-loads of F. Y. M.	...	...	"	15	0	0
Seed 40 seers	...	...	"	7	8	0
Transplanting 20 women	...	...	"	8	9	0
Harvesting	...	...	"	6	0	0
Sieving	...	...	"	0	7	4
Labour for converting paddy into rice	"	11	0	0
Labour for converting into muras of 84 lbs. each	"	1	6	0
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Total expenses for an acre produce of rice 12 months	"	58	5	4
Income by the sale of 12 muras of rice	"	120	0	0
Net income from an acre	...	...	"	61	10	8

As regards the other crops like sugar cane and pulses the farmer could give no accounts.

Current prices of staple foods in the place:—

1. New Maskathi 1 muda of 84 lb.	...	Rs.	9	8	0
2. New Maskathi in heap	...	"	8	4	0
3. Guddu Belthiga	...	"	11	6	0

4. Horse-gram 1 bag	...	...	..	14	0	0
5. Black-gram 1 muda	...	...	..	9	4	0
6. Green-gram 1 muda	...	...	..	7	8	0
7. Local jaggery 1 candy	...	...	..	105	0	0
8. Salt one bag	...	...	..	5	4	0
9. Dhall 1 bag	...	...	..	33	0	0
10. Chillies 1 maund	...	...	..	9	0	0
11. Gingelly oil 1 maund	...	...	..	12	8	0
12. Coconut poonacs 1 candy	...	...	..	37	8	0
13. Gingelly poonacs	...	...	..	52	8	0
14. Mauritius sugar 1 maund	...	...	..	12	8	0

For the holder, five families are working and they are putting up on the farm itself in cottages. Three families are permanently engaged and are fed by the owner.

The owner has a younger brother and they are the only two male members in the family. Their father, who is now dead was reputed to be one of the best practical agriculturists in South Kanara and his sons are now looking after the lands with similar diligence, since their livelihood is dependent on their holdings.

[N. B.—Figures of costs etc. relate to the year 1920]

Doing Without.

The lesson of doing without is a most important one to learn early in life. We can do without all luxuries and many so-called necessities, if we must. The man who never learns it is apt to be a spendthrift and a wastrel. To become a scholar one must do without idle leisure. To make a fortune he must make the same sacrifice. To be an eminent, useful Christian, one must do without some time and ease and some doubtful amusements.

The great lesson of life, after all, is learning to do without some lower things for higher, learning not to make the good the enemy of the best. Yet it is a comfort to remember that the very best things we never have to get along without. There is plenty of air for all. We never have to give up our share. In most lands water is abundant, and we need not stint ourselves in its use. Love is free for who are loving. A man can have all the friends he wants if he will "show himself friendly."

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(From *Great Thoughts*.)