

in the field first and Ragi seedlings are dropped down $1\frac{1}{2}$ ft. apart (1 muzham). This is done as follows:—When the black gram sown is covered with ploughs, the seedlings are dropped down in the furrow made by the 1st plough, the succeeding plough covering and earthing up the roots. The seedlings are again put in the furrow of the 3rd plough, the next one earthing up, and so on in alternate furrows. Only one seedling is planted at a time. There is also the practice of growing this as a pure crop. This method of raising ragi dry is known locally as சால் கெப்பை சாகுபடி which literally means “cultivation of ragi in plough furrows.” It is considered that a rain in August after planting is sufficient to maintain the crop and the September—October rains bring the crop to maturity. There is also a practice of penning sheep a month after planting (*i. e.* after the crop established itself well) and, by so doing, it is said that the crop comes up with renewed vigour and yields also better. The yield varies from 720 to 1200 Madras Measures per acre. This is considered a risky crop and they say that, of late, the cultivation of this is going down in extent owing to the uncertainty of the season.

K. SANKARA IYER,
Farm Manager, Madura.

Practice better than Precept.

M. R. Ry. Karuthiruma Goundan, Thulukkanaickanpalayam hamlet of Vanyputtam, Gobichettipalayam Taluk, writes:—

A quantity of 21 Madras Measures of Daincha seed was sown over an extent of 10.56 acres in S. Nos. 93, 101, 102, 105, 106 and 110 wet in Vanyputtam village on the 1st of May 1913. The seeds were obtained through the Deputy Director of Agriculture, Southern Division. The crop was on the ground for $3\frac{1}{2}$ months and, as soon as water was allowed for paddy cultivation, this crop

was ploughed in. The plants grew to a height of about 8 feet. In these fields, Anaikomban paddy was transplanted singly. The seed bed was prepared as follows :—

In 25 cents of land 50 Madras measures of seeds were sown. After 38 days the seedlings were transplanted 1 foot to 1½ feet apart. By thus planting a surplus of 10 Madras Measures of seeds in 5 cents (nursery) was left over. An attack of “Kuruthukadi” (stemborer) occurred when the ears were in milk. I obtained 190 salagais of paddy from this field. If this disease had not occurred, there is no doubt that the yield would have been higher. About 55 cart loads of green leaf were obtained from these 10·56 acres. The cost per cart load would be about Rs. 10. The following expenditure was incurred in raising this green manure crop :—

Cost of seed at 7 annas per M. M. (including actual cost of seed, Railway freight and cart hire)	Rs. a. p.
...	9—3—0
Cost of 2 ploughings	... 27—0—0
Watching the crop...	... 10—0—0
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Total Rs.	... 46—3—0
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or an expenditure of Rs. 4—5—5 per acre, while the value of leaves obtained is about Rs. 50. If the paddy crop was raised without this manure, the yield would not be higher than 14 salagais per acre. By this treatment a quantity of 2 cart loads of straw (worth Rs. 10—0—0) was obtained per acre in addition. After finding this benefit, I have arranged to sow 15 acres Daincha and 6 acres Sunhemp for green manuring this year.

There is no doubt that more profit would be obtained if single seedling method is adopted, coupled with green manuring. From last year's experience, I gather that, if the seed rate was increased to 4 Madras Measures instead of 2 Madras Measures,

the crop would be thick, not woody, at the bottom and more leaves would be obtained. Besides, if the Daincha crop was ploughed in at flowering time, I think more yield would have been got. It would be wise if those who raise Daincha green manure crop would raise a small area in garden land, as I did, for obtaining their own seed next year,

M. KARUTHIRUMA KOUNDAN.

(Note:—The spacing of 1 to 1½ ft. appears to be too wide to plant paddy seedlings. Was it really so wide?—Editor.)

M. R. Ry. S. Doraiswami Iyer of Gobichettipalayam writes:—

I, S. Doraiswamy Iyer of Gobichettipalayam, Gobichettipalayam Taluk, do hereby publish the fruits of my experiences in single seedling planting gained last year so that all may know and benefit by them.

On August 2nd last year (18th Adi 1913), 6 measures of Samba seed were sown on 6½ cents of nursery. The only operations done to the seedbed were that leaf manure was applied and the nursery was levelled with the levelling board. The nursery was treated as regards irrigation quite similar to broadcasted fields and one hand weeding was given to it.

With an idea that the seedlings would be sufficient to transplant 1 acre of wet land, I had kept the land ready prepared for planting. After the lapse of 35 days, the seedlings were pulled out and tied into bunches. At the time of pulling the seedlings, it is the partice to get the nursery filled by water in order to remove the small lumps of earth which clings to the roots of the seedlings and then tie them into bunches. By this method the seedlings were not crumpled but were fresh and healthy for planting. The seedlings were planted singly in rows 9 inches apart in the above mentioned field. But as the crop was not so good in

appearance as the ordinarily planted crops, my farm labourers remonstrated that the former would come to no good and, owing to their compulsion, I arranged that the subsequent transplanting should be done with two seedlings. The seedlings from the nursery covered 1 acre. The planted seedlings began to tiller in ten days and put forth 10 to 15 tillers in 3 or 4 weeks. Moreover the plants grew well with a dark green appearance. Though, ever since this crop was transplanted, there was not rain sufficient enough for paddy crops, it came up well, improving in appearance, day by day. Nor was this crop affected with the diseases which usually attack paddy. The ears ripened with a well-filled appearance, and the crop was ripe enough for harvest 10 days before the ordinarily transplanted crops. The produce of grain from the 1 acre was 22 salagais and 16 vallams measured with a mudharai vallam of 4 measures (1 salagai—32 vallams) and the outturn of straw also was high. So far as my experience goes, there was never such an outturn from this land. The average yield was 12 salagais in previous years. (vallam = $5\frac{1}{2}$ lb).

In planting in rows there is not only the advantage of having greater interspace in weeding for the coolies to move about without trampling the plants but also of immunity from damage by rats. My neighbours threw aside their doubts when they found that their seedlings were not healthy green and were stunted in appearance and that my single planted seedlings improved day by day and tillered freely; and, seeing that the thickly planted seedlings were attacked by moths, they had all their subsequent crops planted with single seedlings. Having come to know the advantages of single planting, one and all of them decided to adopt single planting this year. I therefore publish the results of my personal experiences in single seedling planting so that other land owners may derive similar benefits. I therefore entreat all land owners to bestow their careful attention on all these points and to adopt, in practice, this good and profitable method of

single planting without entertaining any doubts in their own minds or heeding the perverse criticisms of other people.

S. DORAISWAMY IYER.

Estate Notes.

Among the distinguished visitors who visited the College, Farm and Sugarcane station last month were the Hon'ble Mr. A. G. Cardew, I. C. S., C. S. I., Member of H. E. the Governor's Council, and Mr. P. Subbaraya Aiyar of Madura (Honorary Visitor). They were shown round by the staff and appear to have left the station well impressed with the work which is being done here.

There were 3 passengers travelling by different steamers from Great Britain to Madras in October last whose safe arrival against the attacks of the *Emden* then reported to lie in waiting off the Minicoy Islands, was very anxiously awaited at the College. They were Dr. C. A. Barber, Mr. G. R. Hilson and Miss Calder. The two former joined duty at Coimbatore and Bellary respectively on due dates and Miss Calder who arrived by S. S. Marseilles was married to Mr. MacRae on 28th October at Madras. After a stay of a few days at Bangalore, Mr. and Mrs. MacRae have come to Coimbatore. We extend a cordial welcome to the young lady on behalf of the residents of the College Estate.

Two road culverts had to be constructed on the Farm. The work was given on contract to students of class III. The materials were purchased for them and charged for, but all the labour was done by the students themselves. The profit made was handed over to the Indian Imperial Relief Fund.
