No. 189. Proceedings of the Board of Revenue, dated 3rd July 1872, No. 1,175.

Read the following letters:—

From W. R. ROBERTSON, Esq., Superintendent of Government Farms, to the Secretary to the Board of Revenue, dated Sydapett, 3rd June 1872, No. 422:—

With reference to the 3rd paragraph in the letter No. 3-160, dated the 10th of April 1872, from the Under Secretary to the Government of India, Department of Agriculture, to the Secretary to the Government of Madras, communicated with Government Order, No. 672, dated 25th of April, and Proceedings of the Board, No. 775, dated the 11th of May. I have the honour to observe that, during the past cultivating season, no special experiments were made with Carolina paddy on the Madras Farms; previous experiments having indicated in a very conclusive manner, the necessary conditions for its successful cultivation in this district.

2. Having but a very small area of wet land on the Experimental Farm, and this being needed for experiments, I sold greater part (300lbs.) of the seed, then available, to the Model Farm, for ordinary cultivation. The general results of these sowings were not altogether satisfactory, owing chiefly to the change that had taken place in the physical condition of the soil, during the growth of the previous crop. Soils which in the previous year yielded crops of as much as 45 Bushels, per acre, yielded last season little more than half this quantity of grain; this is, however, quite in accordance with my usual experience under circumstances of a similar nature.

3. Paddy land of a rather retentive character, situated at a low level, resting on a stiff sub-soil, through which there is no natural drainage or filtration, invariably becomes sour and unhealthy, after growing a crop of paddy, conditions quite opposed to the successful cultivation of Carolina paddy, though apparently not so injurious to ordinary Country paddy.

4. The satisfactory crops of Carolina paddy these soils produced during the first year is altogether to be attributed to the fact that the land had not been under cultivation during the previous two or three years, and had, had time to recover its natural healthy state.

5. The total yield of grain from the 300lbs. sown was only 2,929 lbs. but then, a considerable proportion of the crop was cut for fodder, as its appearance did not warrant me in keeping it for the production of grain.

6. At the time we sowed the Carolina paddy, we sowed on the adjoining land 350 lbs. of Country paddy (Chumba); it was treated in the same way as the Carolir paddy, it grew in a very satisfactory manner, and gave a yield of 7,002 lbs.

7. These results are, I believe, quite in accordance with the experience of all who have carefully watched the progress of the experimental cultivation of Carolina and Country paddy; the latter will grow and even thrive under circumstances that would be highly prejudicial to the higher class Carolina paddy; which, *must have a healthy soil, resting on a moderately porous sub-soil, through which the irrigation water must pass.*

8. I am particularly anxious that the results just reported may be estimated only at their worth; they simply indicate that, a soil in a bad physical condition

cannot produce *good* crops of Carolina paddy, though, it may be able to yield fair crops of Country paddy.

9. On the Experimental Farm, a few small plots of indifferent soil were sown with Carolina paddy; not with the view of experimenting, but, simply to save the seed. The following are the general results:—

Extent in square yards.	Quantity of manure used.	Seed sown.	Date of sowing.	Date of transplanting.	Date of reaping.	Yield. Grain threshed.	Yield. Straw.	Rain-fall in the district during the growth of the crop.	Remarks.
		lbs.				lbs.	lbs.		
1,393	Mudder plants and leaves of trees, etc. 9 Loads.	20	Sown broadcast, 1st February.	.....	9th May 1872.	190	890	8·36	Carolina paddy.
2,102	6 Loads.	25	Sown in the seed bed, 22nd August.	11th September 1871.	22nd December 1871.	240	1,076	41·76	Do. do.
1,113	7 Loads.	*30	Sown broadcast, 21st December 1871.	.....	16th April 1872.	290	804	·81	Do. do.
1,195	7 Loads.	40	Sown broadcast, 21st December 1871.	.....	22nd April 1872.	430	1,344	·81	Country (Chumba) Paddy.

* In this instance a larger quantity of seed was sown in order to provide seedlings for other ground.

Proceedings of the Madras Government, Revenue Department,
22nd July 1872.

10. The condition of the soils upon which these results were obtained, was not unlike the condition of the soils which bore Carolina paddy last season at the Model Farm, and, in these instances, as on the Model Farm, the Country paddy throve well, and yielded a capital crop, in spite of the unhealthy condition of the soil.

11. Carolina paddy, which has been grown in this country under suitable circumstances, is in no way inferior to the seed imported from America. One of the best crops I grew last season, 2,000 lbs. per acre was from seed in the 3rd generation since imported; and, I have just issued a fine parcel of grain (the 5th generation) the product of seed, which formed part of the yield of that crop, which was quite equal to the seed we imported from America.

12. Deterioration does undoubtedly take place when the crop is grown under *very* unfavourable circumstances; but it must be remembered that the finest of our Wheats and Barleys deteriorate in the best Wheat and Barley-producing districts in England, if sown at the wrong season, on exhausted soils, imperfectly cultivated. But, deterioration is less to be feared than *the loss of purity in the sample;* fully 50 per cent. of the sample of country grown Carolina paddy, that have been forwarded to me, contain indigenous paddy, varying in amount *from* 10 *to* 50 *per cent.* The presence of this Country paddy amongst the Carolina grain is altogether due to the late period in growth at which ryots harvest their paddy; they generally wait until the crop is *dead* ripe, when from 10 to 15 per cent. of the grain is invariably shed by the wind, and in the harvesting of the crop, the result being, that after the removal of a crop of Country paddy, the soil generally is sufficiently well seeded for another crop.

13. When it is intended to grow Carolina paddy on old paddy land, the soil should be invariably watered and stirred a few days before sowing commences; the seed already in the soil will thus be induced to germinate, and can be ploughed in and killed.

14. I regret that we are not at present able to spare more Carolina seed. I am just sowing Carolina paddy on a few acres of our most suitable land, for the production of this grain, and hope before the setting in of the North-east monsoon to have enough, with what may be available in the districts, for the ordinary wants of this Presidency.

From the same Officer, dated 11th June 1872, No. 444.

In continuation of my letter No. 422, dated the 3rd instant, I have the honour to forward, for the information of the Board, 2 packets of the roots of paddy; No. 1, Carolina, and No. 2, Country paddy. These roots are average specimens; they were collected off some land we ploughed on Saturday, from which, crops of Carolina and Country paddy had just been removed. The land is all of one description and quality; and the crops were cultivated in an exactly similar way. These roots illustrate in a very forcible way the different habits of the two Paddies; the Carolina *feeds deep down in soil*, while the Country variety, is a *surface feeder*. It is evident therefore that, land with a healthy surface, only about 3 inches in depth, can *never* produce a *good* crop of Carolina paddy, though it may produce fair crops

of the Country variety. In such soils, the Carolina grows well enough until its roots begin to pass down into the unhealthy under-soil, when it sickens, turns yellow, and dies, while the Country paddy, whose roots never reach this unhealthy under-surface, may thrive and yield fair results.

SUBMITTED to Government with reference to Governmeht Order, 25th April 1872, No. 672.

2. The result of the reference to Collectors will be communicated when their reports are received.

(True Copy.)

(Signed) W. HUDLESTON,
Secretary to Government.

REVENUE DEPARTMENT,
OOTACAMUND,
22nd July 1872.

No. 190.

No. 1,104.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
DEPARTMENT OF AGRICULTURE,
REVENUE, AND COMMERCE.

Miscellaneous.

SIR,—Adverting to your Under-Secretary's letter of the 10th April 1872, No. 3-160, I am directed to forward the accompanying letter from the Superintendent of the Government Farms on the subject of the experimental cultivation of Carolina Paddy in this Presidency.

2. Further reports on this subject, with reference to the late supply of fresh seed will be submitted in due course.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) W. HUDLESTON,
Secretary to Government.

Exd. G. A. Turton.

7 Copies Dec 26 [illegible]

Revenue Department
22d July 1872

No. 1104.

To

The Secretary to the Govt. of India
Dept. of Agric: Rev: & Commerce

Sir

Adverting to your
Under Secretary's letter
of the 10th April 1872, No. 3-160,
I am directed to forward
the accompanying letter
from the Superintendent of
the Govt. Farms on the subject
of the experimental culti-
-vation of Carolina Paddy
in this Presidency

Further reports on
this subject, will be
submitted in due course.

Sd

30/3

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