

Consumption.

The world's consumption of fertilisers in 1911 represented a value of about £ 80,000,000, and was made up as follows :—

Lime phosphates	...	...	...	5,669,000
Superphosphates	...	...	...	8,604,000
Basic slag	...	...	...	3,300,000
Guano	...	...	...	70,000
Potash salts	...	...	...	4,100,000
(Pure Potash)	...	...	...	848,000
Nitrate of Soda	...	...	...	2,313,450
Sulphate of ammonia	...	...	...	1,100,000
Synthetic nitrogenous fertilisers	...	...	...	100,000

Students' Tour

By the kind courtesy of the Director of Agriculture, Madras, we are publishing the following report of the first tour of the III year students of the Agricultural College, by the Principal.

"The students assembled in Mangalore on 2-10-13 after the Michaelmas vacation and the tour commenced on the 3rd morning.

3rd Morning. Bangarakolur. This is a village some five miles from Mangalore; the people are mainly native Christians and are petty cultivators. The Department has been successful in introducing the red Mauritius cane here as well as improved methods of jaggery making and the information gathered by the students from the farmers was mainly on the merits of these improvements. They were introduced also to the implements of the district as well as to the methods of housing cattle.

3rd Evening. To Konkanadi bail. This is one of the richest bails in the Mangalore Taluk and the class was taken to the holding of an excellent cultivator, a biluva by caste, who of quite a small holding had not only made Agriculture pay but had also been able to set up his sons in business out of the proceeds of his holding. He was a man of considerable originality and his methods of farming were mainly his own and were considerably ahead of most other farmers in this bail. This man had, at the instigation of the Department, tried Daincha for green manuring. He was just harvesting his first crop. Nearly all his single crop bettu fields had been harvested and all had been sown

with horse gram which was sown in the standing paddy crop before harvest. His standing crops on the bettu fields were excellent, while even on high lying harvested bettu fields the stubbles spoke of very heavy crops. This farmer has made a practice of always planting his bettu fields first and his mazhal and bail fields later for the reason that the former were more liable to suffer from lack of water at the close of the monsoon. Most people plant their bail fields first as these are naturally much richer. The students questioned him on his agricultural practice and learned much of the paddy cultivation of the District. Mr. Couchman accompanied us both morning and evening.

4th. To Udipi.

5th. To Hetga to see the holding of M. R. Ry. Ramaya Hedge, a very advanced and enterprising Bunt farmer. His holding was almost entirely bettu land. He also was growing horse gram which had been sown before the harvest of the first crop. He had also on his own account done a considerable amount of experimental cultivation such as the value of fish manure, lime and salt as manures for paddy. Here also the students saw how the streams were bunded up to store water for the second crop and also how dry land could be converted into bettu fields. This farmer belonged to the school which considered that money could be best invested in one's own holding by making improvements, rather than of acquiring additional lands of very doubtful value.

5th Evening. To Peramballi. This was a village where Red Mauritius canes had been introduced and where the first improved furnace for boiling jaggery had been erected in the District. Here the students had an excellent object lesson showing the difficulties met with in introducing improvements. Although Farm Manager, Mr. Balakrishnamurthy had spent a fortnight or so in this village showing how to put up the improved furnace and how to make jaggery, yet no care was taken to prevent the inversion of the sucrose. All the utensils were filthily dirty. Canes which had been cut 48 hours were waiting to be milled and all these failings were keenly noticed and criticised by the class while no amount of argument could persuade the owner of the jaggery shed that his methods could be improved upon.

The better growth of red Mauritius cane was very noticeable when compared with the local varieties.

6th Morning. To Brahmavara.

6th Evening. To the wet lands of the village (known on account of their fertility as the Butter Island) where the local methods of paddy cultivation were studied. On the way back a home-stead was visited where the cattle sheds were inspected and enquiries made regarding the housing, bedding and feeding of the cattle.

7th Morning. Some Islands in the river were visited where the cultivation of red Mauritius cane introduced by the Department was very rapidly extending. Here we saw some excellent crops of cane. Even the methods of cultivation, of manuring and draining as recommended by the officers of the Taliparamba Agricultural Station who were instrumental in the introduction of these canes were faithfully carried out. A trial crop of B-208 cane tried here for the first time this year was the best I have seen in any part of the Presidency. The cultivators were mainly native Christians; small men each cultivating anything up to $\frac{1}{4}$ acre of canes. We learned here, what was hinted at Peramballi, that the professional sugar boilers were doing their best to discourage the use of fish manure. This manure which causes a much more vigorous growth, naturally has the tendency to delay ripening a little and professional sugar boilers who buy the standing crop object to this, because the price of jaggery is always high just after the monsoon before the new stock can come in and they want the cane to be fit for milling at this time. It is a pity since the area of cane is naturally limited by the manure supply and if this source of supply is cut off then the area must always remain limited. There is a considerable scope for co-operation among the actual cultivators here in making their own jaggery instead of selling the standing crop to professional jaggery makers. On our return we stopped at a jaggery shed and saw the process of manufacture. This was the indigenous method and the students were able to compare it with the improved furnace seen at Peramballi.

7th Evening. To Chanthur. Here we saw some more red Mauritius grown on Bettu land and also some of the dry cultivation carried on by the poorer classes of farmers of the district.

8th To Coondapur.

9th Morning. To one of the Islands. This visit though disappointing was instructive. The first place where we landed was an excellent plot of Red Mauritius cane, a new trial this year and the only

plot on the Island. The owner, an actual cultivator, was giving his experience of this crop when several of the landlords of the Island came up after which we could get no information from the cultivators but only misleading and obviously inaccurate information from the landlords. It gave the students, however, a very good object lesson in analysing information given, to see how far it was correct. This is important as so many subordinate officers have a tendency to swallow evidence without attempting to verify its accuracy.

9th Evening. This was spent along the backwater of Coondapur where enquiries were made into the backwater paddy cultivation and methods and of reclaiming backwater for cultivation.

10th Morning to Kap.

10th Evening. A short excursion was made to the wet lands between Kap and the sea.

11th. To Mangalore. On this day it rained incessantly, over 7 inches being registered in Mangalore.

The students had a good opportunity of seeing what rain can be like on the West Coast and how excellent the natural drainage on this laterite country is.

12th. The rain continued all day and, since all the *soman* was wet through, a halt was made in Mangalore.

13th. To Taliparamba Agricultural Station. The rain showed little sign of abating. Although, from information available at Mangalore, the storm centre was moving in a north-westerly direction, rain continued off and on all night, and as it was still raining on the 14th morning and showed no signs of clearing, the rest of the tour in South Malabar was abandoned.

14th Morning. The students were taken round the Agricultural station and in the evening to see the dry cultivation in the neighbourhood which was developed through the agency of the agricultural station.

THE STUDENTS' CLUB.

Mysore Agriculture.

A public meeting was held on 7th September 1913, with Mr. H. C. Sampson, Acting Principal in the chair, when Mr. Badami Siva Rao, student of Class III, read an interesting paper on "a glance