

those in the 'open' are uniformly high, whereas those for the afternoon are smaller, especially at lower levels.

Further studies on these lines and for different

crops have to be continued at a few representative centres before definite conclusions could be drawn. The results obtained so far are being discussed in detail elsewhere.

Agricultural Education in India.

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THE short note on the above subject by Mr. Agarwala published on p. 33 of July issue of the Journal tempts me to make a few observations.

Leaving aside the post-graduate institutions at Pusa and Bangalore mentioned by the author, all other institutions may be said to serve the purpose of training upper and lower subordinates to various Agricultural Departments in the country. Though Agricultural Colleges were established with a view to train up practical and scientific agriculturists, they seem to have failed to attract sons of the landed gentry who by virtue of their position and wealth may reasonably be expected to go back to their estates, run farms on modern lines and thus set examples to their tenants. Unless the Zamindars and large estate owners realise their duties towards their tenants and set an example to them by running a home farm themselves, agricultural improvement in this country may not go forward at a sufficiently rapid rate. It is well known that most of the agricultural improvements brought about in England and other European countries are mainly due to the efforts of landed gentry in those countries. Even to-day, it is private land-owners in England that are leading the country in the matter of stock as well as plant breeding. Even in the establishment of research institutions, private people gave the lead in England as is well known by the history of Rothamsted, the premier research institution of the world.

The course of studies followed in Agricultural Colleges of this country may be eminently suited to train good agricultural demonstrators for the subordinate services. Still it seems to be defective in a few essential points. The economics of agriculture are taught on farms where the plots are necessarily small and cost of cultivation consequently high. The practice in Europe is to ask students to go and work on private estates which are run on business lines and get certificates from the proprietors to the effect that the students have worked satisfactorily and understood the economics of crop production, management of labour, etc. Till such places of practical training are established by private persons in this country, it seems desirable for every Agricultural Department to run at least one farm on commercial lines making use of the

successful results of all experiments to show their money value by practical demonstration and not merely by propaganda.

Such a step naturally brings with it a change in the course of studies. A theoretical course combined with practical demonstrations and plenty of workshop practice in modern agricultural implements and machinery should be the main feature in the early part of the course. The practical course to be followed later on must be devised for two kinds of students:—(a) sons of the landed gentry to enable them to go back to their own estates and become leaders in their respective areas, (b) people who desire to take up service as demonstrators, farm managers and such like.

At present, practical work such as ploughing, forms an examination subject and a certain amount of proficiency is expected in it. Such practical examinations should be modified to suit various types of students. Just as Engineers are not examined in the practical work of road making, trench digging, brick making, wall construction, mortar grinding, etc., too much stress on proficiency in practical field operations of agriculture does not seem to be necessary in the case of those who are to manage estates and are not expected to do the work themselves.

The second type of institution is the agricultural school where boys of the cultivating classes get a training in the theory and practice of agriculture. They are mostly vernacular schools. Even in these schools much time should not be spent on operations which the boys can learn from their elders on their own fields. As the European farmer says, boys must be taught things which they cannot learn in their own place, e.g., about modern implements, new manures, methods of seed selection, etc. Even in these vernacular schools, a large majority of students seem to be from non-agricultural classes and go through the course simply with the object of getting into the lower ranks of service. Consequently, steps have to be taken to attract boys who will go back to cultivate their own lands and practise an intensive system of agriculture.

It would be seen from the above that the whole system of agricultural education needs to be overhauled to suit various types of students that are to be benefited by it.

Himalayan Expeditions, 1934.

THE two Himalayan Expeditions, which attempted to negotiate the unconquered peaks of the Himalayas, have both been abandoned. The German Expedition, led by the well-known Herr Willy Mercle, was given up under tragic circumstances, the leader having met his end with three

of his companions and a retinue of porters, before they proceeded very far. Another Expedition which was organised by the Indian Himalayan Expedition Club, did not materialise, as it is understood, necessary permission was not granted by the Government of India.