

for discussion with the commercial houses, will mark a further step in an organised scheme of development, by bringing the Industrial as well as the Agricultural Department into still closer touch with the local conditions of that which directly affects all their efforts, namely, their market. I refer, of course, to the purchasers of their produce, as represented here to-day by the leading export and commercial firms of the Presidency."

In concluding his address, His Excellency hoped that, from the help, advice, and criticism offered by the members during the discussions, "these young departments, Co-operation, Industries and Agriculture, which, with the Forest and Fisheries Departments, were more particularly charged with the duty of conserving and developing the wealth and national resources of the country, might derive strength and knowledge for further progress."

We hope to give a report of the deliberations of the various committees in a future issue.

The Indian Industrial Conference.

The address of the Hon'ble Mr. Manmohandas Ramji, President of the Indian Industrial Conference, is well thought out, based on actual experience of agriculture, industry and commerce. After reviewing the hardships caused by the war and the possibilities of capturing the trade of Germany and Austria, he states that "a large portion, if not the whole, of the trade, can be captured if our people acquire the necessary scientific training, experience and, above all, a thoroughness of working. I appeal to our young men to devote themselves more and more to science, trade and industries and to take up their work in no light-hearted spirit, but to apply themselves heart and soul to their respective line of work, giving their best to it and thus help forward the cause of commercial and industrial progress. It is only thus that

some of the greatest industries of the West are built up and not by waiting for Government help and struggling for petty clerical services." While he recognises that Government should not interfere with private trade in the country, he asks for financial assistance in forwarding new industries, at least, by the appointment of special experts to study and report upon particular industries and the opening of technological institutes—Schemes in which the Government has already taken action. He pleads also earnestly for intensive industrialism and intensive agriculture to go hand in hand, as this alone has tended to enormous developments of wealth in the west.

Cultivation of Rice in Spain.

Dr. E. J. Butler, Imperial Mycologist who was the official delegate for India at the International Rice Congress held at Valencia, contributes an excellent article to the Agricultural Journal of India on the Cultivation of Rice in Spain. 96,000 acres of land, chiefly in Valencia district on the east coast of Spain, are annually grown with rice. There is much resemblance between the cultivation in India and in Spain. First the land in which rice is grown is permanent rice land, unlike Italy or Greece where rice is grown in rotation with other crops. Secondly the area is supplied with a good system of irrigation canals. Transplanting is the universal practice. Higher land with easy drainage is chosen for raising seedlings and these are planted in well puddled lands in clumps of 3 to 5 plants. The rate of seed bed to field area is 1 to 10 or 12. Water is run off from the field a month after planting, and the weeding is thoroughly done. Harvesting is done with sickles, the crop is threshed by the treading of animals and the corn is winnowed with the help of the wind. The methods which may be termed distinctly oriental were introduced into the country by the Moors who had

conquered and settled in Spain in the 14th and 15th centuries. It is apparently due to the zenana system of the Moors that the transplanting is done by men, 6 of whom could plant $2\frac{1}{2}$ acres in a day.

The differences, however, in the system of cultivation, as practiced in Spain and India, are more important to be stated here. These are (1) a universally accepted practice of a thorough deep cold weather cultivation, rendered possible by the use of specially adapted implements, (2) the application, on the average of 600 to 800 lbs of a concentrated fertiliser (40% sulphate of ammonia, 54% superphosphate and 6% sulphate of potash),— the necessity for potash manure is still a debated point there— and (3) the introduction of exotic varieties to check deterioration of races long cultivated in the same environment.

The produce for 96,000 acres amounts to 246,000 tons which works out to 5,700 lbs per acre on the average!

The subjects for discussion were referred under 8 heads to 8 Committees and the notes and discussions of the Committees along with their conclusions couched in the form of Resolutions, were placed for formal acceptance at the Session of the Congress. Excursions had been arranged to the chief centres of cultivation and there were opportunities for the delegates informally learning from one another. The subjects taken up were:—

- (1) The study of varieties of rice, their importation and preservation of their characters by selection.
- (2) The assimilation of fertilising ingredients by rice and the most modern methods of manuring the crop.
- (3) The operations of cultivation, harvest, and elaboration and the machines most suitable, esp. in small holdings.
- (4) The influence of improvements in rice cultivation on the live stock (horses in Spain).

- (5) The diseases of rice.
- (6) The world's commerce in rice.
- (7) Co-operative Societies of Production and Consumption as applied to rice.
- (8) The effect of increase of rice cultivation on public health.

Important conclusions were arrived at with respect to each of the 8 subheads mentioned, most of which have a direct application to Indian conditions and we are sorry that, for want of space, we are unable to give a larger abstract in our Journal and have to refer our readers to the original article for a detailed information.

Practice Better Than Precept.

Mr. C. K. Ramaswamy Goundar, landlord, Kallapatti writes:—

I sowed thin seed bed of Samba paddy on the 25th August 1913 at the rate of 7 Madras Measures of paddy in 7 cents for transplanting an acre.

Doubts were expressed at first, when transplanting was done after 42 days, whether the crop would come up well.

The crop suffered at the outset for want of water but subsequently regained its vigour when freshes were received in the channel. About a month and half after transplanting, the crops had an attack of worms, specimens of which were sent to the Government Entomologist for identification and advice. He advised me to drain the water off the fields which is also our local practice. The crop recovered from the disease later and tillered freely.