

appointed by Government for that purpose. If such Societies were started in their midst, their troubles would easily disappear.

A Moplah ryot prayed for a gun license, and the Collector promised to consider his application.

As regards the dearness of labour due to emigration, Mr. Innes said that it was not in the province of the Collector to interfere in that direction.

MR. CHADWICK.

Mr. D. T. Chadwick also made a short speech. He said he was very glad to meet them there and learn the results of their experiments. None of the methods had been suggested to them until they were thoroughly tried on Government Farms, so that, they were not going to mislead them. Even so he would particularly request them to try those methods and satisfy themselves whether they were improvements or not, and then freely tell him what good they found in them. He, for his part, would rely on the Presidents of these Village Associations to keep up the membership. They need not be afraid they would be left without help. The Department was always there to help them, and he hoped to be in Malabar in September or October and see for himself the experiments they would then be carrying on.

Both the Collector and the Director then thanked the members for their presence. Mr. Govinda Kidavũ, Inspector of Agriculture, acted as Interpreter throughout the proceedings.

Chidambaram.

Mr. P. N. Mahomed Miran Sahib Bahadur, Deputy Collector, Chidambaram is responsible for the very successful Agricultural Conference organised for the second time during the great Arudhra Darsanam Festival at Chidambaram. Mr. D. T. Chadwick, Director of Agriculture, opened the Conference and there was a large gathering of Revenue officers of all grades and a large number of cultivators. Specimens of single seedlings, combodia cotton, cholam varieties and fodder crops were exhibited. Some stud bulls purchased at Tirupur Show were also exhibited. Mr. Miran Sahib offered a hearty welcome to those present and requested the Director of Agriculture to open the Conference.

In declaring the Conference open, the Director of Agriculture, expressed great pleasure to know how the Conference was got up by the

work of the energetic Revenue Divisional Officer, Mr. P. N. Muhammad Miran. He was immensely gratified to see among the audience Mr. Abaramam Pillai, the real promulgator of the system of single seedling which was now attracting the attention of agricultural experts all over the country. He desired that, in the introduction of the improved methods of cultivation, there must be continuity of interest. He was much pleased with all the single stalks produced by the different members, especially by Muhammad Bava Marakayar Sahib whose single seedling plantation had withstood four floods and put in over hundred tillerings. He advised the ryots that they should not be discouraged by their failures. In conclusion he congratulated Mr. Muhammad Miran on the success of the Conference.

The annual report was read by Mr. P. M. Muhammad Miran Sahib Bahadur.

The object and scope of the Associations are stated as follows in the report :—The main object of the Agricultural Association organized in the Division is to be the medium between the Agricultural Department and the farmers for the adoption of improved methods of cultivation and the introduction of improved implements as may from time to time be advocated by the Agricultural Department. No fee is levied from the members in the Divisional Association or its Branches at Mannargudi, Porto Novo, Vridhachalam and Tittaigudi. The Revenue Divisional Officer is the Ex-Officio Chairman in all. Ryots paying an assessment of Rs. 400 and upwards and the members of the Taluk Board form the constituency of the Divisional Association. There are 73 members on the roll.

In all the Branch Associations, ryots who pay an assessment of Rs. 150 continue to be admitted as members. There are 51 members in Mannargudi, 20 in Porto Novo, 28 in Vridhachalam and 39 in Tittaigudi.

Mr. Subramania Aiyar, Manager, Government Farm, Palur, addressed the audience in an impressive speech about the improvements to be made in paddy cultivation. He dealt at length with the green manure crops, sunnhemp, daincha, wild indigo, karamani pulse, specifying the soil where these could be raised and their cultivation time. He also spoke about single seedling transplantation and the manifold advantages accruing to the ryots in resorting to that method of cultivation.

A discussion followed. Doubts and difficulties raised by the ryots and the extension of the system were explained. The Conference then adjourned to the following day.

On the morning the improved implements of the Association were demonstrated and their uses explained to the ryots.

The Director of Agriculture and the Deputy Director of Agriculture proceeded to Puduchatram to see the single seedling plantations raised by Mr. Muhamad Bava Marakayar and they returned in the noon.

In the evening Mr. M. R. Ramasami Sivan, Chief Assistant to the Government Agricultural Chemist, delivered a lecture on the principles of manuring, what plants are composed of, what elements of plant food are required by plants to build up their structure and how these materials of plant food are obtained from the air, water and soil. He made prominent mention of the requirements of South Indian soils, especially Nitrogen, and explained in what manner this costly element can be supplied to the soil by the growth of leguminous crops as green manure. He exhibited various kinds of artificial manure and explained their uses but at the same time spoke a word of warning against the indiscriminate use of artificial fertilizers unless recommended as required for the soil, by the Departmental officers. Manurial ingredients removed by crops or drainage can be replenished by bare fallowing or by green fallowing or by the application of manures like farmyard manure, oil cakes, fish, bones, etc. or chemical manures like superphosphates. He also said that oil cakes had been found beneficial to paddy and sugarcane, fish manure to paddy, ragi and sugarcane, and superphosphates to paddy.

Mr. P. N. Muhammad Miran in speaking about the improvement of local cattle, said that for agricultural operations and draught purposes good bulls were required. The best bulls to be introduced in the division were the Kangayams. In the improvement of local cattle, "the feed and the breed" should be borne in mind. When natural pasture was deficient, hand feeding should be resorted to and fodder crops should be raised and given liberally. Artificial grasses like kollukattai, guinea grass and lucerne should be raised. Periamanjai Cholam would give heavy yield and might be raised in garden lands or padugai lands along the banks of the Coleroon and Vellar. Velvelam trees may also be grown and the leaves and pods were eaten by cattle and were very nutritious. Calves should be allowed for 3 months to suck as much milk as they could.

Bull calves so fed and properly taken care of for 2 years may turn out to be far better fitted, hardy animals for ploughing operation than the costly foreign bulls. The stud bulls selected should be of good pedigree. All inferior bulls should be castrated when young. The services of touring veterinary assistants now available should be made use of for castration. In order to improve the conditions of the local cattle the awarding of prizes to the best local bulls may go a great way. He expressed that it was his desire to organise a cattle show in connection with the annual gathering. Such a step was likely to be an incentive for the landholders to take particular care of the stud bull.

CO-OPERATION IN AGRICULTURE.

Rao Bahadur Dharma Ranga Raju Garu then addressed the audience about co-operation in agriculture. He described the principles underlying Joint Stock Company and Co-operative Society. He lucidly explained that co-operation among the villages was likely to bring in manifold advantages and pointed out the co-operative principles that existed originally in the villages. With co-operation in large areas, manure crops could be raised with one watchman. Everybody should be benefited and there should be no losing bargain in co-operative credit. The area of operation should be as limited and as narrow as it was possible. He recommended the opening of oil mills for pressing ground-nut under a co-operative principle and to retain cakes for local manuring purposes, sending out ground-nut oil only to foreign countries.

A MEDAL.

The Director of Agriculture selected the bull maintained by Mr. Swamidorai Surappasholanar to be the one in best condition and offered a prize in the name of the Agricultural Department and expressed that he would send a medal for presentation to the Paliagar after getting necessary sanction from the Board.

In conclusion he said that he was much pleased with the impressive speeches made and sympathised with the ryots in their districts and expressed a desire that short crop paddy varieties supplied by the Department at 8 measures per rupee should be obtained and sown in areas damaged by floods still remaining uncultivated.

Mr. P. N. Muhammad Miran Sahib proposed a vote of thanks to the speakers and the President.

RESOLUTION.

The following Resolutions passed by the Subject Committee were then adopted at the close, when Mr. P. N. Muhammad Miran was in the Chair:—

1. That the present conference does hereby ratify and confirm the Resolutions passed in the previous conference regarding the extension of the Agriculturist's Loans Act to facilitate improvement of live stock.
2. That this conference urges the necessity of giving a course of training in the Agriculture College, Coimbatore, to the Revenue Subordinates and suggests that the probationary Revenue Inspectors, to start with, be allowed to take a course in the College.
3. That this conference is of opinion that more facilities be given in schools for imparting instruction in agricultural methods and practices.
4. That Government be urged to afford facility for breeding by maintaining a proper stud bull in each Government Farm and Veterinary Hospital.
5. That the Railway authorities be moved to afford reduced rates for conveying live stock for breeding purposes and green manure seeds and manures and concession rates to *bona fide* ryots for attending cattle shows and agricultural exhibitions.

Mr. Patanjali Pillai, Secretary, Agricultural Co-operative Credit Society, Chidambaram, and Agent, Standard Oil Company, thanked the Revenue Divisional Officer for getting up the Conference and arranging the delivery of lectures by specialists.

With three cheers to His Majesty the King Emperor and the distribution of *pan supari*, the Conference came to a close.

Coimbatore.

The Agricultural Association of this district completed the eighth year of its existence on the 31st December last and a report on the working of the institution during the same period was presented to a meeting of the members held a few days ago, by Mr. T. A. Ramalingam Chettiar, B.A., B.L., Vice President. The meeting was presided over by Mr. F. R. Hemingway, I.C.S. The report which was adopted contained among other things that at the close of the year there were 14 patrons, 41 life members and 64 ordinary members making a total of 119. During the year there were added one patron, 2 life and 3 ordinary members and the withdrawals were 4 amongst patrons and 10 life members—The

opening balance of the Association was Rs. 1824-7-4 including which the receipts totalled Rs. 2,275-9-5. After meeting charges amounting in all to Rs. 484-6-5 there was at the close of the year a balance of Rs. 1791-3-0.

There was also a sum of Rs. 389-12-4 received as fees for well boring and interest on investments. The cattle show account standing to the credit of this fund was 9,197-13-7 on the 1st January 1914.

Kumbakonam.

A meeting of the Kumbakonam Agricultural Association was held at Tiruvadamarudur under the Presidency of Mr. C. G. Austin when interesting lectures were delivered in Tamil on various topics connected with agriculture.

The meeting was largely attended by the mirasidars in the locality and in the neighbourhood who had assembled at the place to attend the Jamabandy camp of the Sub-Collector.

The first speaker was Mr. C.R. Lakshmivaraha Iyengar, Secretary to the Association; and he devoted his speech to explaining to the meeting the working of the Agricultural College at Coimbatore and the instruction imparted therein in the improved methods of Agriculture. He stated that the science of Agriculture, both theoretical and practical, was being taught to students, who had no fees to pay, but who were being looked after there as well as if they were at home. They were employed, during the intervals of their work in the class rooms, in practical agriculture in the extensive farm attached to the college where they took part in the active work of ploughing, sowing, reaping and other agricultural operations just as ryots did in their fields. They were taught in English, and after they had acquired degrees and diplomas, they were appointed to Government service with attractive prospects in front of them. It were well that the mirasidars of this District took advantage of the benefits conferred by the institution and deputed their sons to learn therefrom the most recent methods of cultivation in order to improve the yield of their lands.

Mr. R. Srinivasa Iyengar dwelt on the advantages of a more extensive cultivation of cocoanut in the district, because of the profitable character of the concern, the article being in great demand in the countries of the West where it was turned to every imaginable use.

Mr. Sambasiva Sastrial, pointed out some of the obstacles in the

way of introducing agricultural improvements into the villages. In the first place there was considerable discouragement offered to any individual who might be found with the necessary courage and enterprise to embark on experiments. He had sometimes to encounter active opposition and ridicule. Faction tore up the communities and often cattle were allowed to trespass upon the plots and destroy the experiments carried on there. Again, they had to contend against the uncertain supply of labour in the village for, it was well-known that the country was being depleted of agricultural labour by the methods of recruitment of cooly labour required for the needs of communities outside India. Though the labourers and tenants might have contracted obligations to serve the mirasdars, yet they abandoned them and left the country placing them in a position of utter helplessness to continue the operations that they might have commenced.

Mr. Rajappa Ayyar said that while he congratulated the Association on organizing such meetings and lectures in towns, he would suggest, what might prove of greater service to the cause of improved agriculture, the holding of practical demonstrations of the utility of the methods they advocated before the villagers amidst the conditions that obtained in their villages. The Association might take lands on lease in the villages and conduct their experiments before the very eyes of the ryots, and thus convince them of the real value of their teachings for, far more than mere theoretical lectures, ocular demonstrations carried conviction quicker.

Mr. A. Subramania Iyer spoke of the working of the Government farm at Managanallur and dwelt on the superiority of the methods practised at that farm and of their productive influence to increase the capacity of the lands treated in the light of those teachings.

The Hon'ble Rao Bahadur V. K. Ramanuja Chariar stated that for the benefit for the Agricultural community of the district, a Co-operative Agricultural Society had been formed under the encouragement of Government wherefrom the members who took shares in it, could derive facilities which, as individuals working each for himself, they could never hope to get, the principal matters in which they could expect help being financial assistance for the raising of crops, the purchase of seeds, manure and the implements of husbandry and for finding sales for their produce. In the course of the proceedings of that meeting, one of the speakers deplored the presence of factious spirit in the villages so as

to obstruct improvements to agriculture; while he deplored with the speaker the existence of faction amongst the people, he would derive hope that it would stimulate rivalry and competition amongst opposing parties to advance the cause of agriculture just as faction helped the promotion of Co-operative Credit Societies in the Chingleput District in the early stages of the movement, the shrewd Registrar of those days turning it to his advantage. That way, he succeeded in arousing the emulation of the contending parties of a village to spread the movement in the sphere of their influence.

In closing the proceedings, the President acknowledged that many useful suggestions were contained in the speeches made at that meeting.

Before the meeting rose, a donation of Rs. 50 was announced for the Association on behalf of the Pandarasannadhi of Tiruvaduthurai.

Ongole.

The Hon'ble Mr. P. S. Sivaswami Iyer presided at the 10th cattle show at Ongole and delivered a long instructive address surveying several aspects of the subjects of cattle, the utility of shows, the increased price of cattle, the danger of a larger export, communal grazing, principles of breeding and so on. While the utility of cattle shows in general has been, doubtful, those held at Ongole and Tiruppur formed, he said, exceptions. You have many of the conditions necessary to ensure the success of the show. Your breeders attend; they see the finest specimens produced in the district. They are tempted by the high prices that are offered to improve the production of the best kinds of cattle that it is possible to breed in this District."

Mr. Sivaswami Iyer quoted the opinions of Messrs. Ware, Couchman and Sampson regarding the deterioration of the stock in Nellore. While the large increase in the trade is a matter of satisfaction as it causes a rise in prices and offers an incentive for better breeding, the temptation of high prices, he said, may lead the improvident breeder to part with some of the best specimens of his breeding stock, a tendency to be deplored. Mr. Sivaswami Iyer referred to the proposed employment of a stock expert by Government whose duty will be to take charge of breeding farms, to attend to the breeding of new types and to supply good stud bulls. He further said—"Another suggestion which occurs to me as a layman is this. Can you not take advantage of these shows and the object lessons which they afford, to arrange a few

popular lectures in the vernaculars dwelling upon the evils of promiscuous breeding, of in-breeding, of the use of immature bulls, of the dangers of free or mixed grazing, on the importance of retaining the best specimens in the district and on the necessity for maintaining purity of type? These are matters upon which it would be quite possible, if not easy, for a person well versed in the subject of cattle-breeding to deliver an interesting set of lectures to the breeders and to the people and to the numerous visitors. The necessity for getting good stud bulls for service is not altogether lost sight of by the breeder, but he does not realise the evils of promiscuous herding of cattle. It may be that the poverty of many of the ryots may oblige them to resort to the communal grazing ground. But if it is possible for you to bring home to the people the advantages of the use of private grounds, under conditions which preclude indiscriminate mating, you will, I am sure, confer a great boon upon the cattle-breeding community.

He exhorted the wealthier ryots to take special interest in the breeding of cattle and instanced the case of H. E. Lord Willingdon, Governor of Bombay, who proposed to have a model stock farm on his own grounds in Poona as an object lesson to the public and of the Pattayagar of Palgayakotta in the Coimbatore District who was carrying away a large number of medals and prizes year after year at the Tirupur cattle show. The cattle show was a great success.

Convocation.

Elsewhere we publish a full report of the Convocation held on 8th April 1914 for the presentation of the Diplomas to the successful Licentiates in Agriculture of the year. We will just refer here to one or two points of advice given to outgoing students by the Principal and the Director. Mr. Wood warned them against the tendency to look around for help whenever there was a difficulty and exhorted them to be more self-reliant and to cultivate the habit of dealing with unexpected circumstances as they rose. If, for no other reason, at least for the fact that, when they go out into the villages, they will not have a trained cooly or even a trained pair of bullocks, much less the services of a class instructor. Mr. Chadwick pointed out that two of the main essentials for a successful pioneer in agriculture are courage to act and care and attention to detail. He also drew their earnest attention against waste in agriculture, waste of time, waste of fertilizing material, waste of seed, and waste of any other kind in what they preach or do.