

It is suggested therefore that the Madras Students' Union with its great opportunities of influencing public opinion might help on this work, the great utility of which it has been the object of this article to show.

References.

1. Annual Report Uganda Veterinary Department for year ending December 1932.
2. Togoland, Colonial Report 1933
3. SAYER, W. "Freeding and Handling Experiments on the Pusa Sanhiwal herd, 1932-33". *Agriculture and Livestock in India*, 4, 43 and 105.
4. *Madras Agricultural Journal*, 20, 357.
5. METIVIER, H. 1928. Tropical Dairy Cattle. *Tropical Agriculture*, 5, 131.
6. DARLING, F. FRASER. 1934. Animal Breeding in the British Empire. *Imperial Bureau of Animal Genetics, Edinburgh*.
7. HENKE, L. A. 1929. A Survey of Livestock in Hawaii. *University of Hawaii, Research Publication 5*.
8. Puerto Rico. 1928. *Report: Experiment Station*.
9. HAMMOND, J. 1932. Report on Cattle Breeding in Jamaica and Trinidad. *E. M. B. publication No. 58. H. M. Stationery Office*.
10. EDWARDS, J. 1932. "Breeding for milk production in the Tropics". *Journal of Dairy Research*, 3, 28.

THE AGRICULTURAL DEPARTMENT*

The subject is one which must engage the attention of every one interested in the advancement of Agriculture in India. This advancement should proceed rapidly as long as the reins of Government are in the hands of our present Viceroy who has an intimate knowledge of the conditions of the agriculturists and the problems which confront improved agriculture. The report of the Royal Agricultural Commission which has considered all agricultural questions bears ample testimony to the attention which he has devoted even to details. India is behind several countries in Agriculture and it is hoped it will within the 5th year of His Excellency's Viceroyalty, rank among the foremost countries which can boast of improved and scientific agriculture.

Till 25 years ago, the Department of Agriculture was in the hands of a member of the Board of Revenue who had agriculture among his several portfolios. The agricultural college at Saidapet was more in name and it did not attract the best of the brains; for the graduates turned out from the college could not expect appointments from Government as there were only few under the patronage of Government. A great impetus was given to the Department during the time of His Excellency Sir Arthur Lawley to whom we owe our present Agricultural College. Successive Directors of Agriculture, Mr. Anstead, Mr. Hilson, Mr. Ramamurthi, and successive governors of the Province have been improving the activities of the Department and

* Speech delivered by:—Rao Bahadur K. S. Venkatarama Iyer, Advocate and Mirasdar, Negapatam on the occasion of the 25th College Day and Conference.

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now the applications for admission into the College are nearly ten times more than what the College could admit. There was a time when inducement had to be given by offering stipends; but now the stipends had been withdrawn and yet the college is increasing in popularity. The short courses in Agriculture, in the college, often suggested by me and introduced by Mr. Ramamurthi have been very popular and many a student from families of landholders have been benefited greatly and they are utilising their knowledge and experience to manage their own lands. This taste for practical agriculture has diverted many a wealthy young man back to his land from the idle, extravagant and expensive town life. There is an old proverb in Tamil “கிராமத்தை வாங்கி காரியஸ்தனிடம் கொடுத்தான்.”

This connotes the fact that the management was bad in the hands of the agents of absentee landholders and the agents had their own way of doing things.

There have been many friends of mine who remarked that Government farms were run on expensive lines and private landholders could not afford to spend so much. I had to convince them that the farms were Research Stations and were not run on commercial lines and that they were intended to give us the benefit of the research which were successful for a series of years. There are members of the Legislative Council who say the Department is a white elephant; but there are others who are practical agriculturists or those who have watched with interest the progress of the Department in its various activities. His Excellency Sir K. V. Reddi, the Development Minister in 1921 used to congratulate me on my resolutions in the Council, most of which pertained to Agriculture. Though I am a small landholder, I gave up my lucrative profession of a lawyer and settled on my estate in the management of which I have burnt my fingers by trying to experiment but not without success in many instances. Let our landholders visit the Government Research Stations all over the Province and the Agricultural College; let them see and learn things first hand; let them adopt such of the strains and methods as would suit their lands and if 5 per cent. of the landholders would do so, real advancement would have been made and the endeavours of the Department could be said to have been crowned with success.

His Excellency the Viceroy has given practical proofs of his interest in Agricultural India by providing and maintaining at his own cost 2 stud bulls for use in Delhi District and the rough behaviour of one of them towards His Excellency's Private Secretary was a recommendation to keep him on longer.

His Excellency also pointed out that the Heads of Districts should be more in touch with rural areas and the Madras Government seriously considered the appointment of personal assistants to relieve Collectors of their routine work. This involves the expenditure on

salary of a high official. I am personally against this additional expenditure. The personal assistants are not more experienced or do not draw higher salary than Sub-Collectors and Divisional officers. The Divisional officers should be given more powers, and finality could be given to them in more matters. The Collectors and Divisional officers have been relieved of their income tax work; much of their magisterial work is looked after by first and second class benches. More retired officials and non official lowers can be appointed Special First and Second class Magistrates and Revenue officers can then find more time for agricultural work in rural areas.

The Collectors and Divisional officers whenever they camp in various places, may invite the landholders in the vicinity and they can find at least one or two educated and practical agriculturists who will help them in their rural work in giving practical advice to agriculturists. There is no necessity to appoint big committees or convene annual or bi-ennial conferences. It will be sufficient if a list of landholders who take a practical interest in agriculture is obtained from the agricultural department and informal conferences held with them in the presence of agricultural officers.

The formation of agricultural associations in which the revenue officers and subordinates should take an active part will go a great way. The endeavours of the Deputy Director of Agriculture, II Circle in this matter are really commendable. The Revenue Inspectors may be Ex-officio Secretaries of such associations instead of being Presidents and they alone can command the convenience and time, to convene meetings and bring up subjects for consideration. Non-official Presidents can be found easily to preside over the meeting. Details may be worked out by Committees of the Association to suit the local needs.

There may be Taluk Associations to which the Divisional Officer may be the President and Tahsildars Secretaries and the members of such associations may be nominated by the Divisional Officers on the recommendation of the Tahsildars or on application for memberships; election fighting need not be introduced in these associations. The members of committees may be nominated by the Divisional Officer. To start with, the members need not be asked to subscribe for memberships.

I have known many an association fail, because membership is saddled with subscription and it has been found difficult to collect even a nominal subscription of one anna a month. Government should allot small sums to the associations for contingent expenses such as printing and postage, till the associations are able to maintain themselves by voluntary subscriptions. Government should not decline small allotments for running the associations as they have done in the case of Irrigation Advisory Boards in the Province. I have been

a member and secretary of the Irrigation Advisory Board for more than 6 years and the sooner the Boards are abolished, the better it will be ; for, I believe no useful work can be done by them in spite of specific rules framed for their functioning as advisory bodies on which matters advice could be given. I am referring to their work merely to point out that the agricultural associations should not be merely advisory but should do practical work.

The Hon'ble Sir Charles Souter, who presided over the College day and conference last year rightly pointed out that the officers of the various departments should confer periodically with the revenue officers for help in their work and the District Heads have by our Viceroy now been officially entrusted with the task of agricultural propaganda and work.

The Imperial Council of Agricultural Research has been doing very useful work and thanks to the energy, intelligence and capacity of its Vice Chairman, Sir T. Vijiaraghavachariar, the Council has come to stay as a permanent institution and the Research Institute at Delhi under the very nose of the Viceroy is bound to tackle all problems calculated to give increased yield free from epidemics and diseases of plants.

Allied with Agriculture, is the Veterinary Branch of the Department of Government. The cattle wealth of India is a great asset to the country. The varied climatic conditions of India and the various breeds in different provinces are bound to improve the cattle wealth if only private landholders and private bodies will help Government in producing breeds for milk and for hard work. The Hosur Cattle farm which I had an opportunity to visit is doing useful work and it is hoped Government will allot more funds to enable the authorities to produce more pedigree bulls and cows. Since my visit, I got a bull for a friend, a heifer for another friend, and another heifer for myself. It need not be pointed out that the maintenance of a poor yielding cow is uneconomical and unsound, as the cost of maintenance is almost the same even for a good yielder, though the initial cost may be greater. In spite of departmental publications and bulletins, the ryot has no means of knowing simple remedies to save his cattle from epidemics. Small pamphlets bearing on cattle diseases, their remedies and how to prevent diseases should be published, in vernaculars and distributed widely. The touring veterinary assistant surgeons should stay for more than 2 or 3 days in important villages and disseminate practical veterinary knowledge in rural areas. The cruel mulling should be replaced by the new *Bordizzo* method of castration, which is painless and speedy. Landholders should be persuaded to castrate immature and worthless specimens of bulls in villages which otherwise would cover good cows.

The following are among the problems which must engage the attention of the associations :

1. Improved methods of cultivation.
2. Use of better strains suited to local conditions.
3. Fruit culture.
4. Bee-keeping.
5. Conservation of manure.
6. Raising of suitable crops to the particular areas.
7. Consolidation of holdings.
8. Maintenance of stud bulls.
9. Co-operative Stores.
10. Co-operative Trading Societies.
11. Marketing.
12. Reduction of Railway freights on manures and seeds.
13. Quick and cheap transfer of perishable articles and of fodder to long distances.
14. Issue of concession tickets to those who attend agricultural conferences and meetings of associations.
15. Redemption of agriculturists from their indebtedness, and other items too numerous to mention.

One more suggestion and I shall close my paper.

The Revenue officers and subordinates by virtue of their powers and influence, command respect in villages. The village officers are their subordinates. If those officers have training in agriculture, they will naturally have interest in agricultural work in rural areas. This can be possible only if agricultural graduates are taken in the service of the revenue department. The Agricultural graduates have had sufficient arts course, to enable them to look after clerical and other duties which are at present entrusted to Arts graduates. If at least 50 per cent, of the recruits to the revenue department are recruited from agricultural graduates and gradually absorbed in the revenue department, the rural agricultural work can be easily done by such Revenue Subordinates and without much effort or inducement, practical agricultural work in rural areas will spread. The Agricultural graduates who are recruited to the Revenue Department should also be given practical training in co-operation for a period of 3 months at least, to enable them to supervise the work of rural co-operative societies in their tour. If that is done, some of the large number of Arts graduates turned out will not pester the Revenue officers for appointments, but will be diverted to the Agricultural college as they can be sure of appointments in the Revenue Department.

However much Government might encourage agriculture in rural areas, their endeavours can never be a success, unless the agriculturist in the village is content, free from debts and able to get enough income for the maintenance of himself and his family. The rules of the

Primary Land mortgage banks which are supposed to give relief to indebted agriculturists are not workable in practice and are liable to be misused. Government should step in to redeem the agriculturists by paying their debts and getting the loan back in easy instalments with cheap interest. The landholders are becoming more indebted year after year and the lands are passing into the hands of money lenders who are absentee landholders. Unless the owners of the land in the villages are enabled to hold their lands with the prospect of owning them free of liability in the course of some years, the very useful work turned out by the agricultural department will be undone and the slow and steady improvement in agricultural methods will gradually deteriorate in the hands of absentee landholders who will wait for an opportunity to get rid of the land and the interim lessees who will be interested only to get whatever is possible from the lands, will have no interest in maintaining the fertility of the lands to enable continued better yield. It must be the duty of Government to take early measures for the redemption of agriculturists from their debts and there is no use adopting measures drastically and in a small scale here and there as experimental measures and if Government should delay awaiting the result of their experiments, the remedy will be too late and it will be only shutting the stable after the horse is stolen.

I will also suggest the desirability of publishing suitable agricultural primers for use in Elementary Schools and including the teaching of agricultural subjects for at least 2 or 3 periods in a week. It will create an aptitude and a taste for agriculture in the early days of the boys and it may happen that agriculturally inclined boys may develop a taste in agriculture in their later life. If Government is inclined to agree with my view, a small committee of agricultural experts of the college including retired agricultural professors and one or two non-officials may be entrusted with the work of writing books in easy colloquial style and I shall be glad to serve on that Committee.

If Government do not decide to adopt my suggestions, I shall be willing to write and publish primers for elementary schools provided Government will introduce such books in all Elementary schools if my publication will command the approval of the Agricultural Experts.

I do not wish to take more of your valuable time and I will close after touching on the question of finance which is put forward as the ground for not allotting more funds to the Agricultural Department.

The village officers clamour for more pay and I do not go into question if their clamour is justifiable in the face of the perquisites they enjoy from time immemorial; but to maintain four village menials at a cost of more than Rs. 30 for each village is most unreasonable. There used to be one or two to each village. Each village menial was getting only Rs. 4 formerly. Their number and pay have been unnecessarily increased. There is absolutely no work for four. A careful enquiry will reveal the fact that their time is spent more on private

work rather than on public work. A retrenchment under this head which will be a very proper one, will yield at least Rs. 35,000 for each district and more than 6 lakhs for the whole of the presidency, not a negligible item. There are more items under which retrenchment can be effected; but if committees for retrenchment are appointed all the members cannot be expected to be above being influenced by particular officers and the labour of such committees will be fruitless and no tangible reduction will be possible. One hard financier must be put on special duty and he must invite suggestions from officials and non-officials and report after investigation.

Correspondence.

Note :— A further reply from Mr. P. N. Krishna Iyer has been received regarding the controversy about the host plants of *Pempheres affinis*. A note to the effect that "further correspondence on this subject will cease" had been sent by the Editor for publication in the July issue but unfortunately this had been, by oversight, omitted in the final proof stage. It is not proposed to publish any more correspondence on the subject in the journal.

— Editor.

Review.

The Cultivated Races of Sorghum. J. D. Snowden. Adlard & Son., Ltd., London. 1936. 10 s. 6 d. Sorghum is an important cereal. It is the staple food crop of the poor in many parts of the world. In the British Empire its importance to the indigenous population is obvious. With rich and bulky fodder, we have in it a crop pre-eminently suited to the needs of both man and beast; and its improvement is thus naturally engaging the attention of many Economic Botanists in the British Empire and in the world. In America work on sorghum is much advanced as it is the crop that occupies areas not quite suited to maize. It is, therefore, no wonder that with the appointment of Mr. H. C. Sampson (the late Director of Agriculture, Madras) as Economic Botanist, Kew, his interest in economic botany found its first expression in this desire to increase the knowledge on this important crop. Knowledge is power and the power to handle a crop is the measure of its useful handling. The usual canons of classifying wild plants receive a serious setback when it is a question of dealing with a cultivated one. The difficulties increase, when, as in the case of sorghum, it is a case of reconciliation with much valuable previous work, done at many centres of Europe by nations interested in their colonial dependencies.

The first comprehensive account of the Races of Cultivated Sorghum is thus available in this valuable work by Snowden. As the retired Economic Botanist of the Uganda Protectorate he is familiar with the plant in the field and has come to his task with an intimacy of touch that makes his classification alive and real.

In addition to the very detailed systematic work, Mr. Snowden has contributed a historical study of sorghum from literature. He has also elucidated many obscure points in its botany. This work is thus a landmark in the knowledge concerning sorghum. It is hoped that with this equipment the many sorghum workers in the empire and the world will go ahead with accounts of the sorghums in their respective regions and thus complete our knowledge of the sorghums of the world.

The Trustees of the Bentham Moxon Fund are to be congratulated on their warm response to the request of Kew to finance this very valuable publication and in securing so able and experienced an Economic Botanist as Mr. Snowden to work at it.

G. N. R.