

19th April 1925.] *Chemistry Practical.* [Time 6 Hours.

1. Shake 100 grammes of given soil with 200 c. c. of given solution of phosphate for 15 minutes. Estimate the amount of phosphoric acid in suitable aliquots of the original solution and the filtrate. What inference would you draw about the retentive power of the soil?
2. Examine substance in the test tube qualitatively for not more than 2 bases and 2 acids.
3. Identify the organic substance in weighing bottle.

EDITORIAL NOTES.

M. A. S. U. Leads.

On a former occasion, we referred to the advent of the Royal Commission on agriculture in October next and put in a few suggestions on the basis of which readers of this Journal might collect and forward their views on this—the burning question of the hour. Now we feel dismayed at the apathy shown by responsible persons and the general public alike, in this matter. No action seems to have been taken except that the Viceroy called a conference of Ministers and Directors of Agriculture from several provinces. They met at Simla on the 4th June and discussed problems which from an official point of view ought to engage the attention of the Commission. This meeting has certainly cleared much obscurity in outstanding agricultural questions between the Central and Provincial Governments. Local agricultural committees have been constituted to co-ordinate proposals for placing the case of each province before the Commission. So far so good. But we are sure that both his Majesty's Commissioners and the Government of India would like and certainly expect and welcome people directly interested in the land and having considerable stake in it to come forward and express their views on land questions that have been agitating the minds of the public and the Government for a pretty long time. There is no denying the fact that Agriculture has been forced to the front in all countries especially after the war and India cannot stand alone with folded hands, looking at other nations to steal a march over her in developing natural resources.

The International Institute at Rome is making arrangements for an agricultural world census in 1930-31. Being in a position of vantage at present, enjoying the monopoly in Jute and oil seeds, India

will have none to blame but herself if, at the hour of reckoning, she finds herself at the bottom of the scale in *per capita* production and consumption. No one can predict what bewildering developments may not take place in the next few years in other parts of the world—for example, in Africa to which the enterprising nations of the West have now turned their attention. We would therefore urge on all to ponder well over the long neglected, yet intricate problem of agriculture and try to improve on suitable and well organised lines.

We are gratified to state that the Madras Agricultural Students' Union Committee have been alert and, taking time by the forelock, framed a tentative questionnaire (published elsewhere in this issue) which should compel the thoughtful attention of responsible men, furnishing as it does, hints to look at agricultural problems from the ryot's points of view. We are sure no one will cavil at the idea of the Union starting a questionnaire in anticipation of the points that may suggest themselves to the Commission. The object remaining the same viz., the improvement of agriculture, the Union's questionnaire must and in our opinion does travel over a large part of ground which the Commission cannot but traverse. We would therefore request our members to send in their replies so that a memorandum may be got ready and submitted in time. It is believed that the Commission will visit Madras in the middle of November and all memoranda may be required to be submitted by the end of October, though their questionnaire may not be published before the 20th of that month. It would be well if replies are received by the Union Committee before the 10th of October, so that they may be enabled to do their duty by the Union and the mass of agriculturists whose conditions they wish to advance according to their lights.

Let the terms of reference to the Royal Commission, be what they may. People concerned will, we feel, be failing in their duty if they do not voluntarily furnish correct information on intelligible lines so as to make the work of the Commission complete, easy and yet satisfactory.

The Estate Board Schools.

On the 11th June the residents of the College Estate had the unique pleasure of witnessing the award of prizes to pupils of the Board schools by that silent and practical reformer Mr. R. V. Subramanya Ayyar who was formerly on the staff of the college. It was fitting that the function should be presided over by Mr. Ayyar who

after a long break of over 12 years, was again in our midst with all his family and cultured children to renew his acquaintance with the estate, its residents, its children.

Principal R. C. Broadfoot in very graceful terms introduced Mr. Ayyar to the audience. Mr. Ayyar in his humorous way gave sound advice to the pupils and exhorted them not to neglect manual work and handicrafts. Mr. Broadfoot in his concluding speech made some general observations and referred to the present condition of the Board schools which, he expected, would improve in as much as the general financial condition of the Government had become normal.

The success of the function was due to the industry of the teacher Mr. Veepappa Gounder and the excellent way in which the Headmistress—Boramma and her assistant had trained the pupils in drill and singing. The assortment of prizes for girls showed care, method, originality and evoked praise from the audience.

We hope that the Local Board will raise the schools to the Lower Secondary grade as a good number of boys from the neighbouring villages and a large number of boys and girls from the Estate which is growing are compelled to attend the schools in the town which is 3 miles off for want of English teaching in the estate schools which, owing to this cause, are in a state of stagnation.

Madras Cane Work.

Our American contemporary—the Planter and Sugar Manufacturer—has attracted the attention of the Indians by its handsome reference to and generous praise of the work which is being done at the Coimbatore Cane—Breeding Station under the control of Rao Sahib, Mr. T. S. Venkataraman. (Vide page).

Coimbatore canes have, we note, spread in all provinces in this country and have crossed the much dreaded black water even to distant America.

The good work to the credit of the agricultural department so far certainly compels one to admit that when facilities are given and enthusiasm is stirred, the ardent band of workers in the nation-building departments will under intelligent and sympathetic guidance give a good account of themselves equally with their countrymen who have already proved their capacity in other departments of life as administration, law, justice, fine arts and letters.

B. Sc. Ag. Degree Examination.**RESULTS.**

(ARRANGED ACCORDING TO RANK).

PART I.

Achyutha Wariar, U.	Bapayya, D.
Ramanathan, K.	Sundaresan, M.
Gopalan Nayar, T.	Sivasankara Menon, K.
Ramaswami, K.	Ramamohan Rao, A.
Ramachandran, S. V.	Vaidiswaran, K. B.
Ramachandran, S.	Sankaranarayana Ayyar, C. S.
Kunnikoran Nambiyar, A.	Krishna Rao, V.
Parameswara Menon, P. K.	Raman Nayar, M.
Mayandi, S.	Rajam Ayyangar, R.
Subramanyam, P.	

PART II. (Second Class).

Narayanan, T. R.	Mahadevan, S.
Varadachari, K.	Karunakaran Nayar, V.
Balakrishnan Nayar, A. P.	Annaswami N.
Rajagopalan, N. S.	

Royal Agricultural Commission.*Tentative Questionnaire*

BY THE M. A. S. UNION.

1. Is the land producing as much as it could. N. B. Refer separately to (a) Rainfed lands (b) Lands under wells (c) Lands under tanks (d) Lands under river channels.

2. Is it possible to increase production?

3. In what directions can South India or the portion of it of which you have experience, change her crops and methods of cropping?

4. How far can she rely upon her present supply of (a) manure (b) water and (c) cattle.

5. In what ways can she sell her agricultural products to the best advantage.

6. How does the ryot spend his income? If feasible, family budgets may also be furnished.

7. What obstacles, if any, do exist in the way of ameliorating his present condition?

8. How far has agricultural improvement spread in rural parts?

9. How far has the cultivator responded? How much is he responsive? If not, what do you think are the reasons?

10. In what directions do you think action is necessary to further the spread of improved methods.

11. Are the existing methods of agricultural education, demonstration and propaganda (1) sufficient (2) popular? Do they in your opinion need modification? If so, in what directions?

12. Do you think any legislation on the lines of the State Aid to Industries Act will bring about any improvement?

13. To what extent in your opinion do the co-operative and agricultural departments co-operate with each other in pushing on agricultural improvement?

14. Do you think any readjustment is necessary or desirable in their individual work or will their amalgamation do any good especially on the non-credit side of co-operation in starting, maintaining and increasing the number of societies for production, purchase and disposal of all kinds of articles the ryot is directly interested in?

15. Will the retransference of the control of the Pumping and Boring section to the Director of Agriculture hasten agricultural progress?

16. To what extent have the Agricultural Loans Act and the Land improvements Loans Act been availed of by the ryot? What suggestions if any would you offer for their further popularisation?

17. Can the food crops now being grown be given up in favour of or be successfully replaced by other food crops so as to increase food supply and keep the population above want as is reported to have happened when potato was introduced and largely replaced wheat in arable lands in Ireland.

18. How far is the system of growing irrigated dry crops in lands under irrigation projects, both existing and to be undertaken, in tracts of which you have experience, conducive to the wellbeing of the cultivator?

19. To what degree can the recommendation made by Mr. A. Galletti, to grow dry crops, fodder and pasture as in Italy be given effect to, in respect of wet lands in your division?

20. Do facilities exist for satisfactory drainage in the wetland tracts you know of? If not, can you suggest any remedies?

21. What damage if any, occurs among crops generally in your tract? What steps do the ryots take to avert it? How far have measures advocated by the Mycologist and the Entomologist succeeded in reducing such damage? Do you advise educational or propaganda methods as desirable or penal enactments as necessary in checking the ravages of pests and diseases in the present state of illiteracy of the rural population?

22. How far has, in your opinion, the research work done by crop specialists influenced progress and their advice taken up by ryots?

23. Has the ryot taken up new canes, new seeds evolved at Coimbatore and other allied stations to any appreciable extent? Can this work be pushed very much further or are there any limitations or impediments? If so, what are these and how can they be overcome?

24. Is Livestock in your division sufficient for all agricultural purposes and milk production?

25. Is there any 'overstocking'? If so, how can it be corrected?

26. Are cows and shebuffaloes in your district sufficient to meet local demands? Is the milk problem only confined to towns or has it spread to villages also?

27. Are there any recognised breeds? Are they improving or deteriorating? What causes are at work in this direction?

28. What ailments do cattle in villages suffer from or succumb to? When do they appear? Do the villagers know of any local remedies or do they call a cattle doctor for help?

29. Do the ryots to any extent adopt the system of growing fodders for their cattle?

30. Do they use straw as the sole, main or subsidiary food of cattle? If as the latter, what other foods serve as supplementary, when and at what cost?

31. Is the system of giving grain and concentrates to cattle as in Europe, prevalent or coming into practice in your tract?

32. How many days in a year and during which season do the crops grown in typical villages in your jurisdiction engage the labour of all local adult workmen and workwomen?

33. Are there any village industries which keep them employed during other days? Is it possible in your opinion for them to devote more time to agricultural operations so as to secure better returns? or is the period of idleness inevitable? and if so, what is its duration?

34. Is human labour increasing in numbers and advancing in quality in your division or is it deteriorating? In what manner has this influenced cropping for good or for bad? Are any remedies possible? Do you suggest any if harm has resulted owing to deterioration?

35. Is there sufficiency of fuel and timber supply in villages? If not how does the ryot fare in regard to his needs? How can they be met?

36. Is the local manure supply adequate? If not, how would you improve it?

37. Is the ryot keen on preserving his cattlemanure? Does he use it for any other purpose? Why does he do so? Can this be improved?

38. Are there any possibilities in increasing the supply of irrigation water in your division, through digging wells, or constructing reservoirs or undertaking projects? Can they be productive or should they be treated only as protective?

39. Have you any practical proposals to interest big landowners, trustees of temple and mutt lands, and zemindars in agricultural improvement and to get them to actively co-operate in advancing in definite lines of farming in the tracts in which they own lands?