

AGRICULTURAL EDUCATION.

THERE is abundant evidence that the report of the Departmental Committee on Agricultural Education is receiving the attention it deserves. The Farmers' Club has issued a memorandum on the subject, and we learn from the *Times* of March 1 that the County Councils Association proposes to discuss various matters arising out of the report at its conference at the end of this month. The Central and Associated Chambers of Agriculture are also interesting themselves in the matter. On March 9 a deputation waited on the President of the Board of Education and the President of the Board of Agriculture for the purpose of directing attention to the need for reform in agricultural education.

It will be useful to recall the conclusions and recommendations of the report. The Committee considers that a satisfactory foundation has been laid for a national system of agricultural education, although much remains to be done in the development of details. In particular the facilities for lower-grade agricultural instruction and for itinerant instruction are very inadequate. There is a shortage of teachers and of experts for higher work, but it is considered that existing institutions could make up the deficiency if only they were better equipped. Increased provision is needed for research work. More money, in fact, is wanted all round. A system of dual control is recommended. The Board of Education should look after elementary and secondary school instruction; the Board of Agriculture should, as now, deal with college and university instruction.

The Farmers' Club agrees with practically all these conclusions, and its memorandum is a most interesting document, showing, as it does, the value set by practical men on agricultural education. The club would probably not claim to represent the whole of the farming community, but it includes many of the best men, and its views may be taken as identical with those of the most enlightened agriculturists of the day. Great stress is laid on the fact that more money is wanted, and must be forthcoming. Winter schools are asked for, where the sons of small farmers may attend for about three months, to leave better equipped for their work. The schools must be staffed by the right sort of men. Itinerant instructors of the right kind are needed to get hold of the little farmer and show him where his methods can be improved. Men are wanted to carry out research work. In some of the existing schools and colleges the standard of the teaching requires raising, but the writers of the memorandum

"cannot attempt to lay any blame on those responsible, for they have made the best use of the small funds at their disposal, and cut their cloth in accordance with their means. The salaries offered are in many cases almost an insult to an educated man, and it is frequently found that no sooner has an instructor settled down in a college, institute, or county than he is offered a better post (generally abroad), and someone else has to be found at the same miserable salary with like results."

All this is beyond dispute. The real difficulty is the lack of men. The agricultural colleges ought to be able to supply all the men needed, but they do not, and no one will deny that the committee of the Farmers' Club has discovered the correct reason. There is small inducement to go on to the teaching staff of the ordinary agricultural college, and still less to remain there. The result is a frequent change and loss of the best men, which is unsatisfactory now and unpromising for the future. Meanwhile, there are not enough of the right men either for the home or the colonial appointments. One of the best of the colonial agricultural departments has been staffed

in part by Americans, because competent men were not available here; and it is much to be feared that some who have gone out to colonial appointments as the best we could send have not given a particularly satisfactory impression. This is a subject which demands very serious consideration.

The contentious part of the report is that relating to the control of agricultural education in the various technical schools and colleges which deal with agriculture alone. The Departmental Committee favours a dual control, and the Farmers' Club agrees. It has been said that the Board of Education desires to control the whole system from start to finish. We gather from the *Times* that this question will be dealt with at length by the County Councils Association Conference. Undoubtedly, the ideal arrangement is to have the whole system under one Board, properly coordinated, with no break anywhere from the elementary school to the agricultural college of university rank. But the fact must be recognised that the Board of Agriculture is, and has been for some years, in possession of the field, and it has, on the whole, the confidence of the farming community, some of its officials being actually known to the farmers. The Board of Education, on the other hand, is not in touch with them, and until a few years ago had no official of agricultural standing. The Farmers' Club fears that under the Board of Education agricultural education would never be more than a "side show," and this they most emphatically do not want. Of course, if the Board of Education were prepared to do the big thing, it would no doubt be best for it to take entire control, but if not, the dual arrangement suggested certainly seems more satisfactory. In any case only a few institutions are concerned; the universities and university colleges with chairs of agriculture are, and should remain, outside the sphere of action of either Board, except in so far as they accept grants for the upkeep of the department or farm. It is gratifying to learn, from the replies given to the deputation of March 9, that the two Boards are considering means by which they can have better organisation, and each is prepared to cooperate heartily with the other in finding the solution of the difficulty.

THE AIR OF COTTON MILLS.¹

THE latest report on the subject of humidity and ventilation in cotton mills adds considerably to our knowledge of this difficult question, complicated as it has become since about 1870 by the introduction of artificial humidity by means of "steaming." Previous reports have shown that the ventilation of most sheds was far from satisfactory, and that the health of the workers suffered from excessive steaming. As a result an Act was passed in 1901 which prescribed, among other things, the amount of fresh air to be supplied per hour for every person employed, the amount of humidity permitted, and that the amount of carbon dioxide should not exceed nine volumes in 10,000 of air. Experiments carried on in 1906 show that the relative humidity is highest in the morning (79 and 80), and diminishes as the day advances, falling to 70 and 71, also that the common supposition that the relative humidity inside the shed is less than that outside is true only for the winter months.

The table of humidity in the Act of 1901 begins at a wet-bulb temperature of 35° F., and ends with a wet-bulb temperature of 91° F.; but weaving cannot be carried on at the lower temperature, and the operatives cannot endure the higher temperature. There is a

¹ Report of the Departmental Committee on Humidity and Ventilation in Cotton Weaving Sheds. (London: Wyman and Sons, Ltd.)