

SCIENCE IN AGRICULTURE.¹

IT might truly be said that only within the last two decades has the importance of the scientific investigation of the infinite number of problems arising from agricultural practice received, in some measure, general recognition. During this period it has become more and more evident to those engaged in the production of plant and animal commodities that it is sometimes merely foolish, and at others almost dangerous, from an economic point of view not to accept the help freely proffered by agricultural educational authorities. The aid given by these bodies may be



The white woolly currant scale. From "The Journal of the South-Eastern Agricultural College."

embodied in one or several schemes, such as the institution of demonstration experiments to illustrate certain manurial and cultural measures, the value of which is indisputable, facilities for consultation with experts in cases of special fungoid and insect pests, educational measures by means of in-college lectures and peripatetic work, and, lastly, the creation of a close connection between the farmer and the research worker.

The report before us provides an inspiring example

¹ The Journal of the South-Eastern Agricultural College, Wye, Kent. No. 28. Pp. 476. (London and Ashford: Headley Bros., 1912.) Price 7s. 6d.; Residents in Kent and Surrey, 3s. 6d.

of such agricultural activity and indicates to the general reader how much may be accomplished by efficient organisation and sound work; to the agriculturist of the south-eastern counties it would constitute what might almost be regarded as a book of reference on many matters agricultural.

The work is compiled in the form of reports from the departments of agriculture and dairying, horticulture, economic zoology, chemistry, botany, mycology, veterinary science, and concludes with general notes. Although much of the subject-matter must pass unnoticed here owing to lack of space, reference may be made to experiments on pig-feeding and the winter feeding of dairy cows, the effect of ferrous sulphate on the quality and quantity of potatoes, the valuation of basic slag, and weeds in seed samples, the latter article being illustrated by many admirable plates. Some valuable experiments have been made on celery blight (*Septoria petroseline*, var. *Apii*) and its prevention, the results obtained showing that a vast improvement may be induced both in size and value of produce by means of spraying with Bordeaux mixture.

In his report, the economic mycologist directs attention to the disquieting fact that the compulsory measures of the "American Gooseberry Mildew Orders," as at present carried out, do not in any way check the spread of the disease to fresh plantations. At the beginning of the season there were in Kent alone about 3300 acres of mildewed plantations, and it is evident that the measures with respect to the autumn pruning of diseased bushes will have to be uniformly enforced in order to keep down further spread and to prevent the measures taken by conscientious growers being largely nullified by laxity in others.

The report on economic zoology maintains its usual high standard and outlines the various insect pests which have come under observation during the year. Of these, a bad attack by the white woolly currant scale (*Pulvinaria vitis* v. *ribesiae*) is reported, a portion of an affected plant being shown in the accompanying illustration.

A vaccine has been prepared by the veterinary department, and is being used in the "struck sheep" experiments, and we look forward with interest to the publication of the results of this work.

THE CHANK BANGLE INDUSTRY IN INDIA.

FROM a commercial as well as an artistic point of view the chank or conch shell industry is so important that in 1910 the Government of Madras deputed Mr. J. Hornell, superintendent of the Pearl and Chank Fisheries' Department, to visit northern India and report upon the subject. The result of his inquiries is described in an interesting monograph published in vol. iii., No. 7, of the Memoirs of the Asiatic Society of Bengal.

He begins by discussing the literary evidence of the position of the industry in early times, and reviews the evidence from the large collection of prehistoric remains collected by Mr. Bruce Foote, now deposited in the Madras Museum. Mr. Foote was inclined to assign many of these chank or conch shell ornaments to the Neolithic period. But this identification is, in many cases, not supported by the investigations of Mr. Hornell, who points out that many of the speci-