

A Scheme for Advancing Scientific Research in India.

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IN a recent issue of the *Current Science*¹ Prof. Gideon has put forward an elaborate scheme for the organization of research work in India. If I understand him right, the most important point he urges is that research in applied sciences like Agriculture, Medicine, etc., should not be restricted to a few central research institutions, but that some of the activities of such institutions should be retrenched and the teachers in the numerous mofussil colleges in the different provinces of India should be invited to work on research problems which have direct economic value from the Agricultural, Medical and Veterinary points of view. Only big university centres, according to him, should carry on research of purely academic nature. I request the hospitality of the columns of the *Current Science* for making some remarks on Prof. Gideon's scheme, especially in reference to research in entomology, admittedly the largest and most important section of economic zoology.

Presuming that there is enough justification for Prof. Gideon's statement that "the majority of mofussil colleges teaching science are free centres for research, having trained men with leisure for such work," it is very doubtful if they have well-equipped laboratories and libraries for doing research of direct economic value. A man working on the control of insect pests has often to consult literature not only on entomology but on several other sciences like Physiology, Biochemistry, etc. Few research workers will deny that small annual grants for the purchase of literature are in any way adequate and that frequent getting of books by post from a far off library hardly conduces to well-sustained and concentrated work. Nor does a short visit to a big library in the beginning or at the end of research work meet the needs, as literature has to be consulted simultaneously with the progress of work. Regarding the equipment of laboratories, the mofussil colleges will each at a time be able to undertake the study of one or two pests and the necessary apparatus,

etc., required by several of them will often be similar. It will be readily understood that this multiplication of the same kind of apparatus in a province and the consequent considerable unnecessary expenses can be easily avoided if the study of all the pests is restricted to a few well-equipped central institutes in the province.

Moreover, the study of an insect pest is not purely an entomological problem, in as much as when devising means of control careful account has to be taken of the general agricultural practices prevalent in the area. An Economic Entomologist, therefore, has frequently to consult and remain in close touch with his colleagues in the sections of pure Agriculture, and other Agricultural Sciences.

The mofussil colleges, however, can do very important research work of purely academic nature and at the same time of great indirect economic value. They can study the anatomy, life-history, habits and ecology of insects, especially of the species which are harmful or beneficial to man at the present time or are likely to be so in future. They can easily ascertain the names of such species from the Economic Entomologist of their Province. First class research can be done on this aspect of Entomology. This kind of work can be done even at a comparatively isolated place without requiring much literature or expensive apparatus. I think that it is for this kind of research that the Imperial Council of Agricultural Research gives grants to teachers in science colleges. It is the most essential work preliminary to the solution of the problems of insect control which, as above explained, had much better be worked at a central institute or college. Needless to add that all the important universities in India or even in England recognize this kind of research work as quite suitable for theses for their research degrees.

Though the remarks made above have special reference to Agricultural Entomology they apply with equal force to medical and veterinary divisions of this science.

¹ *Current Science*, 1, 133, 1932.