

## EDITORIAL.

### SHOT-HOLE BORER INVESTIGATIONS.

It became evident during discussion at the Conference held at St. Coombs in March last, that there is considerable difference of opinion regarding the importance of Shot-hole borer as a pest and the damage it causes. The Experimental Committee of the Institute later considered this matter and made certain recommendations to the Board, which decided:—

'That through the agency of the District Planters' Associations, the Institute should be informed of those estates on which Shot-hole borer was regarded as being the cause of serious crop losses; that the Institute should ask permission to investigate the records of those estates first of all in general by correspondence and questionnaire, and then personally in detail, to ascertain the facts about crop losses.'

The success of an investigation of this nature is dependent upon the co-operation of estate managements. Without their help, failure is inevitable. Both the Planters' Association and the Ceylon Estates Proprietary Association have expressed their willingness to co-operate fully, and judging from past experience we feel assured of the necessary assistance of estate managers. The object of this note then, is to draw attention to the enquiry and to explain our requirements and intentions.

It may seem strange at this late date in the history of Shot-hole borer in Ceylon, that there should be any difference of opinion concerning the importance of this pest and the crop losses it may cause. A difference of opinion on such matters implies an incomplete knowledge of the subject on one or both sides. The Institute, here and now, admits that its knowledge of the subject is far from complete; it also realises that there may be within the knowledge of estate superintendents many facts concerning Shot-hole borer, of which the scientists remain in complete ignorance. The object of the investigation is not to accumulate a mass of new evidence in the first place, but to make the fullest use of what is at present in existence. Much of it is buried in estate records. We hope that these investigations will remove at least some of the questions in dispute from the realm of opinion to that of demonstrable fact.

The question whether Shot-hole borer causes material reduction in crop appears at first sight to be one easy to determine: an examination of crop records should provide the answer. The solution of the problem obviously cannot be as easy as that, otherwise there could be no difference of opinion on the matter.

Crop is influenced by many factors of which only climate and cultivation need be mentioned here. Crop also gives a reflection of many bush characteristics. For instance, it is difficult to imagine a general reduction in the size of the tea bushes (their frames) or a reduction in the vitality or general health of the bushes which would not have an adverse effect on the crop. Different factors may be operative simultaneously and tend to influence crop yields differently. Thus, climate and increased manuring may simultaneously tend to increase yields, yet at the same time a reduction in the size of the bushes owing to the ravages of Shot-hole borer may be operative. The ultimate result may be an increase in yield, yet, by hypothesis, the agency of Shot-hole borer has nevertheless caused a reduction in crop. Much of the damage caused by Shot-hole borer may thus be masked by the beneficial influence of other factors. This masking is likely to occur whatever criterion is used for measuring the effect of the pest. The only estate records which are likely to throw any light on the problem are crop records, and these must be studied with other records such as manurial programmes in order to obtain a true picture of the position.

Another possible cause of the difference of opinion is that the material damage caused by Shot-hole borer varies in different districts because of different climatic conditions. For that reason, the enquiry should cover a wide area and not be restricted to any particular district.

For such reasons as the above, it was considered advisable to begin enquiries on those estates on which, in the opinion of the management, Shot-hole borer causes serious crop losses. Superintendents of such estates are requested to inform their District Planting Associations or the Tea Research Institute direct of their willingness to co-operate in these investigations. To such estates in the first place will be sent a questionnaire asking for specific information, much of which can be extracted from estate records. This information will be regarded as confidential if so desired.

The Board's intention was not that the investigations should cease when the data obtained from questionnaires are analysed, but that any points emanating from such analyses shall be followed up 'personally in detail'. The investigation will start with examinations of crop records, but the lines along which it will travel later

will depend to a large extent upon the facts or indications which emerge from the study of data. Crop records obviously form the most suitable starting point as every estate has accurate records going back many years. The aim and object of the investigation, however, is to eliminate opinion concerning the ravages of Shot-hole borer and to replace it by demonstrable facts. Obviously, that purpose cannot be achieved by restricting the scope of the investigation to crop records alone.

It is hoped that this note will remove any misapprehension that may exist regarding the scope of the investigations. The success of the investigation is largely dependent upon the active co-operation of the planting community. We ask for that co-operation and an opportunity of examining the data on which current opinion is founded.

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