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INVESTIGATION OF VIRUS DISEASES OF BRASSICA CROPS

BY

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FOREWORD

From 1948–50 virus diseases caused serious losses of cauliflower and broccoli in most parts of England where these crops are grown intensively. Many field crops in Kent, especially in the Isle of Thanet, failed completely in 1950, as also did broccoli in allotments almost everywhere. The growers became anxious about the future of their industry and the Agricultural Improvement Council asked the Agricultural Research Council to arrange for more research on these diseases aimed to provide practical methods whereby they might be controlled.

Some work on the two main viruses concerned was already in progress in the Plant Pathology Department of Rothamsted Experimental Station, and workers there were approached to see whether this could be extended to a comprehensive study of the conditions leading to serious outbreaks in field crops. This task was undertaken by Dr L. Broadbent, who was particularly well suited for it because of his previous work on the spread and control of virus diseases in potato and lettuce crops.

Of necessity the bulk of the work was done at Rothamsted, but Dr Broadbent found many willing collaborators in the National Agricultural Advisory Service, at Agricultural Colleges and, perhaps most important, among the growers themselves. Consequently experiments and observations were possible in many parts of England, covering a wide range of growing conditions. It is largely a result of this fruitful collaboration that it has been possible to present such a complete account of the many factors affecting the incidence of brassica virus diseases in Britain.

Some results of this work have already been published in scientific journals; these have been included in this report, together with the results of many new experiments by Dr Broadbent or his collaborators. It is thought that the information so assembled will prove valuable both to advisory officers and growers of brassica crops.