

### GENERAL SUMMARY

In each of the following main sections, a brief history and introduction of the subject is given. The methods of spread of the two diseases discussed and the life history of Tomaspis saccharina are briefly set out, followed by control measures both used and suggested, and economics of each. A brief summary closes each section.

It is essential that research work be carried out continually on better control measures of each of the three. The writer is convinced that a better scientific knowledge of leaf scald is required to assist the plant breeder.

History & Introduction:

Until 1959, leaf scald was unknown in the British West Indies. It was then discovered in British Guiana. It appeared that the disease had been there many years. It is thought that it was introduced in 1928 in the tolerant Java variety, but it remained undetected until the use of those varieties now known to be susceptible, such as Barbados and others.

GENERAL INTRODUCTION

The number of economic pests and diseases of sugar cane in the British West Indies is small. Mosaic and lately leaf scald - Xanthomonas albilineans - are very important in Jamaica and British Guiana respectively, and every effort is being made to exclude them from other islands. Other minor diseases like Red stripe - X. rubrilineans - ring spot - Leptosphaeria sacchari - eye spot - Helminthosporium ocellum (sacchari) and red rot - Physalospora tucumanensis - do occur in some major cane areas, but are of little importance. Of the insect pests, froghopper in Trinidad especially, and Diatraea borer chiefly in Antigua are the only ones of concern at present.

In this dissertation, the two leading Sugar Cane diseases in the West Indies, leaf scald and Mosaic and the froghopper pest - Tomaspis saccharina - are studied, stress being laid on the various suggested and existing methods of control, and the economics of each.