

SCOPE OF THE INVESTIGATION.

The initial object of this work was the investigation of Leaf Spot diseases on Elephant Grass and in Sunflowers. These diseases were said to be due to species of Helminthosporium. It soon became evident, however, that it would probably be of advantage to concentrate on the disease of Elephant Grass, not only because it was clearly of greater economic importance, but because it was quickly demonstrated that the Leaf Spot of Sunflower could not be attributed to any micro-organism of the normal types. During the course of the work, a few relevant comparisons and observations were made on a Leaf Spot of Guinea Grass caused by a species of Cercospora. The results of the investigation are thus described in three parts.

1. A description of the Helminthosporium disease of Elephant Grass and a discussion of the experiments carried out with this fungus.
2. A description of the Cercospora disease of Guinea Grass, with some comparisons between this disease and the first.
3. An account of some investigations into the nature of the Leaf Spot of Sunflowers.