

INTRODUCTION.

Early in 1939 Fields 1, 2 and 3 of the I.C.T.A. farm were marked out in small experimental plots for the purpose of conducting a Uniformity Trial on each field. The aims of the trials were twofold; firstly, it was intended to make a detailed study of the extreme variations in crop yields which occur over these fields; secondly, it was hoped that uniform treatment over a number of years would even out variations and so make experimental work possible, as prior to 1939 it was found very difficult to obtain statistically significant results in field experiments on this area of land.

This thesis is an account of work carried out on Field 2 in the season 1940-41. Hitherto, Field 2 has not been examined in detail, - only the plot yields have been recorded. Paine (1) studied the fertility trend of Field 3 in 1939-40 and the present work is a continuation of his experiments, but applied to Field 2.

Although Paine came to no definite conclusions regarding Field 3 his work was valuable to the present investigators in that they were able to appreciate the conditions prevailing in Field 2 without the preliminary survey which is necessary in such instances.