INTRODUCTION

In all countries but particularly in the tropics, the question of crop establishment is largely influenced by the factor of weed control. Cultivation has not yet been supplanted by any other method which aims at reducing or suppressing the weed population. Under temperate conditions however, chemical spraying of weeds in cereal crops has often been successfully carried out. The cost of such operations bears favourable comparison with normal cultivations. In tropical climates, the differences of weed types and of weed growth conditions, apart from any economic aspect, will determine to a marked extent the success of chemical spraying. The ecology and physiology of weeds in the tropics must first be studied, together with trials of effective weedkillers before it can be stated that chemical methods are either economic or uneconomic.

The Aim of the Experiments.

The distinction between the chemical control of weeds on waste and non-cultivated tracts and on arable land must first be emphasised. This distinction rests on the assumption that the waste-land is not ultimately intended for crop production. Any chemical measures taken should therefore aim at establishing/semi-permanent soil sterility within economic limits; where this is not possible, then such measures should aim at controlling the weeds by successive chemical applications. On arable land there are two factors involved; first the effect of chemicals on the crop and weeds when sprayed in situ, and secondly, their effect on future crops and weed growth. Both these factors thus demand a more careful study of climatic, soil and plant conditions than is necessary, where soil sterility is the objective. These