

ABSTRACT.

The results from a number of experiments upon the effect of altering the area per rice hill between the limits of 25 sq. ins. to 400 sq. ins. indicate that, as the space between hills is increased, the number of heads per hill increases and the mean head weight also increases, but the number of heads per unit area and the yield per unit area progressively decrease.

These effects are shown to be little modified by differences in variety, the number of plants per hill, the pattern of distribution of the hills, the soil type or the time of planting.

For one variety it is shown that the yields obtained from rice established by three different methods of direct seeding differ little from those obtained from transplanting, provided that similar densities of population can be established, but it is also demonstrated that rice established by direct seeding is subject to severe weed infestation in the absence of good water control.

An attempt to compare the relative efficiency of different methods of direct seeding when used with various seed rates proved unsuccessful due to invasion by weeds.

The relative advantages of direct seeding and transplanting are discussed in relation to both the results obtained from the spacing trials and the possibility of mechanising small scale rice production. The failure of scientific opinion to agree upon which of the methods is superior is attributed to the part played by a number of factors the relative importance of which varies enormously according to the conditions under which any particular comparisons between the methods are made.