SUMMARY

The manufacturers of jute goods in India feel that unless raw jute prices are kept low, the industry cannot survive in the face of competition from synthetic fibres and kraft paper. The jute farmers, feel that current prices of raw jute is so low, that is discourages investments on fertilizer, pesticides and requisite labour for weeding and thinning.

It is known that the yield of jute could be much more than 14.5 q/ha (which is the national average) with proper use of fertilizer and requisite interculture. But current prices of raw jute are not attractive enough towards large investment on fertilizer and big contingent of labour.

'Thinning and weeding' operation is the most essential interculture; without this a jute crop is never a success. In this operation the extra jute plants are taken out to effect proper spacing between two adjacent jute plants and weeds are also simultaneously removed. But no precise information exists with regard to the correct stage in terms of crop-age at which thinning and weeding would be optimum.

Author's objective has been :-

a. To identify in terms of crop-age, the time for thinning that would give the best yield, other things remaining constant.

b. to find effect of small quantities of nitrogen fertilizer on yield when topdressed immediately after thinning and

c. to identify the right kind of spacing i.e. crop arrangement, that would ensure better yield with reference to tossa jute.

Field trials were conducted for three consecutive years to study the effects of 27 treatment combinations including 3 dates of thinning (at 15, 21 & 28 crop age), 3 doses of N-application and 3 kinds of spacings.

Estimates of major nutrients viz NPK Ca Mg removed by thinned out jute plants and weeds by the time thinning was executed, were recorded. It was found the removal of nutrients was proportionately more as thinning was
delayed. But it was found that early thinning and weeding at 15 days crop age did not ensure better yield since at that age the root system was not properly developed.

It was found that thinning and weeding done at 21 days crop age is more effective than doing it at 15 or 28 days crop age.

It was further found that a spacing of 20 cm between rows and 7.5 cm between plants in a row, gives better yield than broadcast or crop raised in rows 30 cm apart.

Top dressing of N-fertilizer (ammonium sulphate) at the rate of 30 kg N/ha proved highly effective often proving at par with 60 kg N/ha.

The combination of $T_2 N_3 M_2$ proved the best. This means thinning and weeding operation at 21 days crop age, N-applied at 60 kg/ha and crop raised in rows 20 cm apart and plants in the row spaced at 7.5 cm apart in average.

The findings are likely to be accepted by marginal farmers who depend on family labour in raising a jute crop.

The yield could be as high as 54 q/ha and could be stabilized around 37.5 q/ha when the technique described is adopted.