

than medium and high densities. This is important since on uneven surfaces pods may be positioned below the cutter bar. Successful soybean production should include narrow row spacing of 6-10 inches and a density of 150,000 to 200,000 plants per acre.

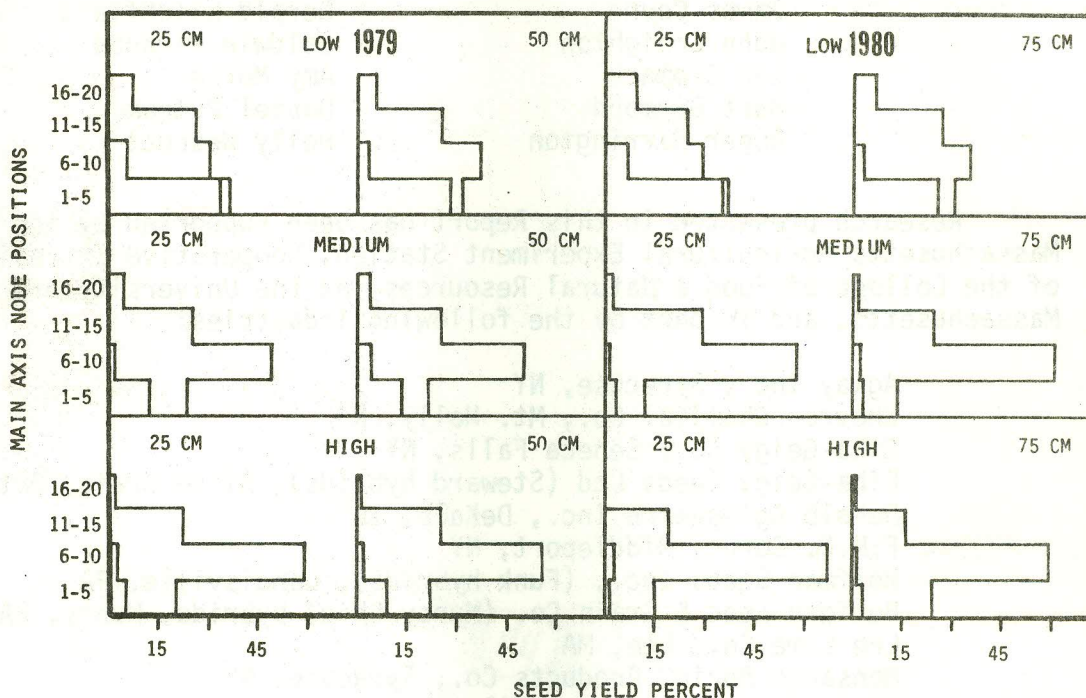


Fig. 3. Branch and total seed yield distribution at main axis nodes.

### CONTROL OF SOYBEAN ABSCISSION WITH LIGHT

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Over 70 per cent of the flowers formed on a soybean plant may abscise and fall to the ground without producing seed. In addition, pods containing immature seed may also abscise before harvest. This tendency to abort normal healthy flowers, and pods limits ultimate soybean yields. The reasons for early flower and pod abscission are currently poorly understood.

In some plants (fruit trees, mungbeans) light has been demonstrated to inhibit the abscission process. However, the effects of light treatment on abscission processes of soybeans growing in the field are unknown. Research in the field plots containing the lights will measure the abscission of flowers and pods of soybean plants treated with red light. Comparison of light treatment with controls receiving no light will indicate if light can be used to prevent abscission in soybeans.