

Study on the relationship between carbohydrate supply and demand at different nodes soybean plant¹

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summary

In order to study the relationship between source and sink organs at different nodes of soybean plants during reproductive growth period, Dah-liarn cultivar was grown for the experiment in the fall crop of 1984. Leaves and pods were taken weekly from different nodes, nonstructural carbohydrate was determined.

In view of source-sink relationship on the whole plant, upper nodes had higher sink size. The leaves at upper nodes could maintain high physiological activities, and supply more assimilate and nutrient to meet the requirement. The results indicated that non-structural carbohydrate was translocated to seed from leaves, to meet the demand of the developing seeds at rapid seed filling period, and the translocation rate was higher at higher nodes on the plant; also indicated that differences in physiological activities due to sequential ontogeny among different nodes were found.

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