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## Japanese journal of crop science

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ONLINE ISSN: 1349-0990

PRINT ISSN: 0011-1848

### Japanese journal of crop science

Vol.67 , No.4(1998)pp.523-528

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#### Pod Elongation and Seed Growth as Influenced by Nodal Position on Stem and Raceme Order in a Determinate Type of Soybean Cultivar

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[Published: 1998/12/05]

[Released: 2008/02/14]

#### Abstract:

Pod elongation and seed growth in a determinate type of soybean were investigated in relation to nodal positions and raceme orders. Pods began to elongate on day 16 after the beginning of flowering, and seed growth was started on day 14 after the beginning of pod elongation(i.e., it took 30 days). The lower the raceme orders, the higher the final pod length and seed dry weight. The floral organs on the 4th and 5th orders of racemes began to flower on day 21 after the flowering of basal buds, but started to elongate on day 10 after the beginning of elongation of basal pods. Furthermore, the increase in seed weight began on day 6 after the beginning of the growth of basal pod seeds. The rate of pod elongation was highest on order 3 raceme and the rate of dry matter accumulation in seeds on order 2 raceme was higher than on the basal order raceme. Flower or pod abortion was observed most frequently just before the period of pod elongation. Although soybean had a long flowering period according to raceme orders, both the pod elongation and the seed growth were synchronous among raceme orders; thus seeds were matured at the same time.

#### Keywords:

Flowering habit, Pod elongation, Raceme order, Seed growth, Sink abortion, Soybean

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