

Variability in the duration of flowering in the faba bean

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Fiord is the only commercial cultivar of faba bean currently recommended in Australia. The plants of this cultivar and most others often stop flowering when conditions are still conducive to further growth. It is classically assumed that this arrest is due to competition for assimilates from the developing pods. Other factors limiting flowering could include availability of water and morphological constraints.

Methods

Cultivar Fiord was sown on 24 April, 14 May, 4 June and 25 June 1986. Twelve accessions (including Fiord) from several countries were sown on 2 June. Both trials were replicated 4 times and plots were 2.1 x 5 m. Every week, flowers and young pods were removed from 25 plants ('stripped') in each plot. Twice a week, the number of flowers and the date of anthesis of the first flower were determined on each raceme of a further 25 plants. At harvest the number of pods on each raceme was recorded.

Results and discussion

Control plants of Fiord produced fewer nodes at later times of sowing. The stripped plants continued to flower until a terminal flower was produced, except in certain late stems and in Maris Bead which were still flowering when an early drought in November stopped flowering and vegetative growth. Fiord sown on 24 April produced significantly more nodes up to the terminal flower than it did from later sowings.

Variation in the date of anthesis of the flower forming the last pod shows that conditions remained suitable for podding up to 6 weeks after the end of podding in early sown Fiord. There is potential for developing a cultivar which takes greater advantage of the growing season than does Fiord.

Table. End of reproduction in 12 accessions of faba bean, 1 sown at 4 times.

	Mean date of anthesis of flower forming last pod	Mean number of nodes from first flower to last node, primary stem only:	
		Control plants	Stripped plants
Fiord sown on:			
24 April	28 Aug	21.9	24.2
14 May	1 Sep	16.1	22.2
4 June	11 Sep	17.0	21.2
25 June	23 Sep	14.4	21.4
S.E.	1.0	0.53	0.52
Mean	9 Sep	17.3	22.2
Sown on 2 June:			
Fiord	11 Sep	17.1	22.2
Sicilian	12 Sep	17.7	21.8
Indian	13 Sep	16.9	20.9
Lebanese	15 Sep	17.8	23.2
Greek Broad	15 Sep	18.0	25.3
Italian	18 Sep	19.0	24.8
Moroccan	21 Sep	17.1	23.6
Habashy (Egypt)	25 Sep	19.4	23.5
Greek Tick	25 Sep	19.5	25.7
Afghan	8 Oct	19.0	24.7
Maris Bead (U.K.)	15 Oct	25.1	27.9
Ostlers (U.K.)	18 Oct	27.3	not treated
S.E.	1.4	0.63	0.65
Mean	21 Sep	18.8	23.8

