

Early maturing navy beans for Tasmania

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The demand for navy beans, canned as "baked beans", is increasing in Australia. Cultivars previously tried in Tasmania (1) were too late, being harvested in cold, moist conditions. This experiment compared new, shorter season cultivars over a range of sowing times.

Methods

The experiment was conducted in 1988-89 at the University Farm, 20 km from Hobart. It comprised four sowings (Table 1) as main-plots, with four cultivars as sub-plots, in three replications. Seed was inoculated with *Rhizobium* and precision drilled at 5 cm spacing with 50 cm between rows (40/m²). Sub-plots of 5 rows were 20 m long. Crops were irrigated as required.

Results and discussion

Table 1. Effect of sowing time on number of days to maturity and dry seed yield in four cultivars (CV)

Sown	Opal		D80024		D82339		Actilac	
	days	t/ha	days	t/ha	days	t/ha	days	t/ha
31 October	115	3.40	117	3.60	117	2.92	117	2.96
22 November	99	3.48	102	3.35	102	3.13	108	3.43
1 December	96	4.00	101	3.81	99	3.54	107	3.59
19 December	102	3.76	104	3.89	105	3.88	109	4.68

LSD (P = .05) sowing date within CV 2.8 days, 0.67 t/ha; CV within sowing date 1.2 days, 0.54 t/ha.

The first sowing matured about February 24, taking up to 19 days longer (Table 1) than the third sowing. While the latter was the most rapid, it was still 10-15 days longer than for similar cultivars in the United States. The summer was warmer than average and day-degrees are being calculated to predict maturity times. Plant height, total dry matter and seed yield (Table 1) generally increased with later sowing. Actilac, the latest to mature, showed the largest response to sowing time, whereas two of the earlier cultivars, Opal and D80024, showed the least. Late sown Actilac, while giving the highest yield, only matured on April 7. In some years, cooler summers and wet autumns may make harvesting difficult unless crops are sown by early December. The increased height of later sowings made direct harvesting feasible, whereas pods were too close to the ground on early sowings, particularly of Opal.

1. Allen, A.G. and Walker, W.F. (1973). *Tasmanian J. Agric.* 44: 145-150.