Flowering date and yield of rapeseed

E.L. Armstrong^a, A.L. Bernardi , L.W. Banks^b and T.P. Drew^c

^aAgricultural Research Station, Cowra. N.S.W. ^bAgricultural Research & Advisory Station, Condobolin. N.S.W. ^cAgricultural Research Centre, Trangie. N.S.W.

Rapeseed is a more temperate crop than the spring wheats grown in N.S.W. Consequently, it is disadvantaged if flowering and pod fill fall mainly in the dry and warm months of October and November. Conditions are more favourable in August and September and flowering can be programmed to occur here by adjusting sowing time (1) and/or manipulating genotype.

Experiments evaluating a range of early flowering <u>Brassica genotypes</u> are being run at Cowra and Condobolin. Cowra is the more favoured rapeseed growing area (aar 620mm) while Condobolin (aar 415mm) is marginal.

Results and Discussion

1982 was one of the driest seasons on record, while 1983 was one of the best and longest seasons and results have to be interpreted accordingly.

	Cowra 1982 Sown 15/6		Cowra 1983 Sown 13/5		Condobolin 1983 Sown 9/5	
	Days	Yield	Days	Yield	Days	Yield
B. campestris						
Span	89	.25	79	1.16	88	1,24
Jumbuck	94	.22	84	1.47	92	1.19
Chinoli A3	92	.18	86	1.19	92	.41
8. juncea						
81799	78	.42	92	1.37	99	1.65
81792	80	.38	101	1.70	106	1.31
B. napus						
RU 1	80	.45	99	2.65	105	.98
RU 14	80	.48	100	2.20	100	1.29
75N107-13	92	.40	109	1.98	109	1.54
BLN 225	98	.35	114	2.74	113	1.78
Marnoo	105	.10	119	2.52	-	-
LSD (P 0.05)	0.05		0.35		0.32

Table 1. Days from sowing to flowering and yield (t/ha).

In 1982, yields decreased as the length taken to reach flowering increased within each <u>Brassica</u> species, particularly in <u>B. napus</u>. The reverse generally occurred in 1983. In both years and sites, <u>B. campestris</u> did not yield as well as the other species. <u>B. napus</u> yielded slightly better than <u>B. juncea</u>, particularly in 1983 at Cowra.

The more interesting lines were the early flowering <u>B. napus</u> lines RU1 and RU14. They flowered earlier than <u>B. campestris</u> in 1982, but later in 1983. These types offer the same advantages as <u>B. campestris</u> in drier areas and the potential of higher yields and oil content. They also have greater seedling vigor, improving their establishment and competition with weeds. Also, they are shorter, an aid to windrowing and harvesting.

1. Armstrong, E.L., 1985. Proc. 3rd Aust. Agron. Conf., Hobart.