



Department of
Primary Industries and
Regional Development

Research Library

Experimental Summaries - Plant Research

Research Publications

1988

Pea variety tolerances to herbicides

David Bowran

Follow this and additional works at: <https://researchlibrary.agric.wa.gov.au/rqmsplant>



Part of the [Agronomy and Crop Sciences Commons](#), [Soil Science Commons](#), and the [Weed Science Commons](#)

Recommended Citation

Bowran, D. (1988), *Pea variety tolerances to herbicides*. Department of Primary Industries and Regional Development, Western Australia, Perth. Report.

This report is brought to you for free and open access by the Research Publications at Research Library. It has been accepted for inclusion in Experimental Summaries - Plant Research by an authorized administrator of Research Library. For more information, please contact library@dpird.wa.gov.au.

Trial title: Pea variety tolerance to herbicides
Trial number: 88ME118
Officers: D. Bowran
Co-operator: Location: Merredin R.S.
Crop(s): Field pea Date sown:
Soil type: Red loam Fertilizer: 100 kg/ha
Ground preparation: Sprayseed prior to seeding superphosphate
Experiment design: Split plot Seeding rate: 100 kg/ha
Plot size: 2 m x 10 m
Harvesting: 1.4 x 8.5 m
Spraying details:
Spraying date: 25/5/88 30/6/88
Crop stage: IBS, IAS 3-4 mode
Nozzle type: 11015VB
Volume (L/ha): 47
Pressure (Kpa): 240
Temperatures (°C):

(a) wet/dry 12.5/17
(b) previous 24 h
(min/max)
(c) next 24 h
(min/max)

Rainfall (mm):

(a) previous 24 h nil nil
(b) next 24 h nil nil

May - June - July - Aug - Sept - Oct -

Weeds: Wild oat, medic, cotula.

(i) Trial No. 88ME118

Treatment	Rate (t/ha)	Timing	Variety				
			Dundale	Collegian	Pennant	Wirrega	Alma
Untreated	(t/ha)		2.16	2.45	2.30	2.30	2.01
Untreated	(% Bladex 2.0 L)		82	86	75	76	72
Bladex	2.0 L	IBS	100	100	100	100	100
	4.0 L	IBS	96	92	95	107	104
Diuron + trifluralin	2.0 L + 1.0 L	IBS	112	93	92	93	93
Diuron + trifluralin	4.0 L + 1.0 L	IBS	110	79*	87*	95	98
SN106664	375 mL	IAS	107	88**	97	96	109
	500 mL	IAS	100	83**	90	110	101
	750 mL	IAS	90	71**	76**	105	96
Brodal (Bladex IBS)	200 mL	3 node	100	97	105	105	96
Brodal (Bladex IBS)	400 mL	3 node	108	89	88*	96	100
Bladex + trifluralin	2.0 L + 1.0 L	IBS	102	109	110	102	97
Diuron + MCPA (Bladex IBS)	300 mL + 250 mL	3 node	98	95	98	99	100
	600 mL + 500 mL	3 node	86*	71**	75**	93	72**
MCPA amine (Bladex IBS)	0.7 L	3 node	199	100	100	112	111
	1.4 L	3 node	71**	61**	53**	81**	83
SN106664 + fusilade (Bladex IBS)	250 mL + 250 mL	3 node	101	97	94	101	102
SN106664 + diuron	250 mL + 1.0 L	IAS	122	100	101	106	98

Comments

This site was variably infested with a population of wild oats and self-sown cereals. Consequently the Bladex at 2.0 L/ha has been used for comparison with other treatments, especially as this treatment was applied IBS to a number of the post-emergent treatments.

Diuron + trifluralin reduced yields of Collegian and Pennant where the high rate of diuron was used. Bladex + trifluralin was tolerated by all varieties and a slight increase in grass weed control was obvious. SN106664 showed clear varietal interaction with Collegian being the most sensitive variety and Wirrega the most tolerant. SN106664 with either diuron or Fusilade was well tolerated by all varieties. Brodal was well tolerated by all varieties. Diuron + MCPA caused no yield reductions at the low rate, but was generally not tolerated at a higher rate. MCPA tolerance was good at 0.7 L/ha but poor at 1.4 L.