

Winter beans

Herbicide Evaluation Trial 1971

SUMMARY:

There were slight but no significant plant losses with some treatments, nor were there any significant yield losses although Gesagard, Ivosit and Kerb at 3.0 lb resulted in a loss in yield of 1 cwt per acre.

The weed control achieved by Kerb was superior to that of the other herbicides and more persistent.

OBJECT:

To examine various herbicides for the control of annual weeds in winter beans.

SITE:

Wheate close

TREATMENTS:

Pre-emergence

Gesagard 50 (Simazine)	1.5 lb
Kerb(RR 315)	1.0 lb
Kerb "	2.0 lb
Kerb "	3.0 lb

Post-emergence

Ivosit (dinoseb acetate) 5.0 pt.

LAYOUT:

4 randomised blocks

Treatment area:- 150' x 9'

Harvest area:- 250' x 6'10"

WEED SPECIES

Stellaria media, Veronica persica

SOIL TYPE Ashley series (Sandy loam)

PREVIOUS CROPPING	1969	Potatoes
	1970	Spring wheat

MANURING 3 cwt 0:20:20 giving 0:60:60

DRILLING Date 2 October

Variety Throws M.5.

APPLICATION

Date	7 October (pre-em.)	7 April (post-em.)
Soil conditions:	firm dry and cobbly	dry

Water Volume:	33 gpa	50 gpa
Pressure:	30 psi	20 psi
Nozzles:	T jet 8004	8008 T jet
Application order:	CDEA	B only

Chemicals:

Gesagard 50 (Ex Geigy)	50% w/w Simazine
Ivosit (Ex Hoechst)	50% w/v Dinoseb acetate
Kerb (Ex Rohm & Haas)	50% w/w RH 315
	Pre-em
State of crop	-
State of weeds	-
	post-em.
	3-8 in. high
	chickweed 1-4 in. across
	speedwell (V persica) 2 true leaves -
	2 in. across
	Groundsel $\frac{1}{2}$ -1 $\frac{1}{2}$ in. high

Conditions after application
Pre-em.

General: 16°C wind SW force 3, sunny
and moderate humidity

post-em.

wind N force 1 overcast sky
and moderate humidity

Rainfall

WEEK	Pre-em. (7 oct)	Post-em. (7 April)
1	tr	0.0
2	12.2	1.1
3	16.8	18.5
4	32.0	0.0
TOTAL	61.0	19.6

CROP AND WEED
ASSESSMENTS

Dates (a) 12 February

(b) 29 April

Method (a) Twelve 18in. x 4in. quadrats
per plot

(b) Twelve 12 in. x 12 in. quadrats
per plot

HARVEST DATE (a) 2 September

WINTER BEAN HERBICIDE TRIAL

MORLEY, NORFOLK 1970/71

Weed assessments on 12 February and 29 April 1971

TREATMENTS Commercial product per acre	Weed assessments on 12 February		Weed assessments on 29 April		Visual Vigour %
	Total Weeds '000s/a	%	Total Weeds '000s/a log + 1	%	
A Simazine (Gesagard 50) 1.5 lb	71	33	2.265	66	70
B Dinoseb acetate (Ivosit) 5 pt	-	-	2.175	54	55
C Kerb (RH 315) 1 lb	22	10	1.805	23	55
D Kerb (RH 315) 2 lb	15	7	1.547	12	33
E Kerb (RH 315) 3 lb	4	2	0.988	6	28
F Untreated control	214	100	2.428 (± 0.1644)	100	100 (± 5.6)
Standard Error per plot			17.60%		19.60%

WINTER BEAN HERBICIDE TRIAL MORLEY NORFOLK 1970/71

Bean assessments on 12 February, 29 April and 2 September 1971

TREATMENTS Commercial product per acre	Bean seedling assessment on 12 February		Bean seedling assessment on 29 April		Bean yield on 2 September cwts/a
	'000s/a	%	'000s/a	%	
A Simazine (Gesagard 50) 1.5 lb	89	88	107	110	18.0
B Dinoseb acetate (Ivosit) 5 pt	101	100	81	84	18.1
C Kerb (R 315) 1 lb	92	91	104	107	19.4
D Kerb (K 315) 2 lb	104	103	107	110	19.2
E Kerb (R 315) 3 lb	102	101	80	82	18.3
Untreated control	101	100	97	100	19.3
	(±9.5)		(±8.3)		(±0.52)
Standard error per plot		19.45%		17.22%	
				11.58%	5.52%

WINTER BEAN HERBICIDE TRIAL

MORLEY, NORFOLK 1970/71

Weed assessments on 12 February and 29 April 1971

TREATMENTS	Weed assessments on 12 February						Weed assessments on 29 April						
	Chickweed		Speedwell		Other weeds		Chickweed		Speedwell		Other weeds		
	'000s/a	log'000s/a + 1	'000s/a	log'000s/a + 1	'000s/a	log'000s/a	'000s/a	log'000s/a + 1	'000s/a	log'000s/a + 1	'000s/a	log'000s/a + 1	%
A Simazine (Gesagard 50) 1.5 lb	16	1.206	14	1.483	15	0.920	58	1.116	14	1.865	83	1.803	86
B Dinoseb acetate (Ivosit) 5 pt	-	-	-	-	-	-	-	1.970	102	1.588	17	1.200	18
C Kerb (R 315) 1 lb	9	0.599	8	0.458	9	0.825	35	0.499	3	0.728	59	1.740	61
D Kerb (R 315) 2 lb	4	0.458	3	0.229	9	0.599	35	0.506	6	0.166	27	1.438	28
E Kerb (R 315) 3 lb	0	0.000	0	0.000	4	0.458	15	0.000	0	0.000	18	0.988	19
F Untreated control	115	2.050 (±0.2039)	100	1.834 (±0.1689)	26	1.058 (±0.2893)	100	1.965 (±0.1611)	100	1.947 (±0.1219)	97	1.907	100
Standard error per plot		38.5%		34.7%		70.6%		31.9%		23.8%			25.5%