

Efficacy and crop response of Express applied to IMI tolerant sunflower "8N429CL" from Mycogen, and "Charger" from Seeds 2000 (2003)

The objective of the study was to screen for efficacy and crop response of applications of Express made to IMI tolerant sunflowers

The control plots in both studies were treated with Assure II to control grasses so that crop response to treatment rather than to weed competition could be observed. The two Clearfield sunflower varieties responded differently to the Express treatments. In general, the 'Charger' from Seeds 2000 was a more tolerant variety than '8N429CL'. Injury to either sunflower variety increased as Express rate increased. Sunflowers treated with Express at 0.167 oz/A had recovered from injury by August 6, and yields were similar to the control. However, when Express was applied at 0.67 oz/A, Charger and 8N429CL sunflower yield was reduced by 56 and 69%, respectively.

Table. Efficacy and crop response of Express applied to IMI tolerant sunflower "8N429CL" from Mycogen

Treatment ^a	Rate	Grft		V Wheat	Clearfield Sunflower			Yield
		Jul 22	Aug 6	Aug 6	Jul 7	Jul 22	Aug 6	Oct
		——% control ——			——% injury ——			lb/A
Express + Assure II	0.167 oz + 8 fl oz	88	93	100	9	1	3	1368
Express + Assure II	0.25 oz + 8 fl oz	86	87	100	12	8	5	1170
Express + Assure II	0.33 oz + 8 fl oz	83	89	100	20	18	8	1191
Express + Assure II	0.67 oz + 8 fl oz	73	82	100	52	63	48	475
Raptor	4 fl oz	95	97	100	2	1	0	1639
Control		96	98	100	0	0	0	1531
LSD (0.05)		9	6	NS	5	15	4	299
CV		5	4	0	15	54	23	13

^aExpress + Assure II treatments were applied with NIS at 0.5% v/v, Raptor was applied with NIS and 28% N at 0.25% v/v and 2.5 gal/100 gal, respectively.

Table. Efficacy and crop response of Express applied to IMI tolerant sunflower "Charger" from Seeds 2000

Treatment ^a	Rate	Grft		V Wheat	Clearfield Sunflower			Yield
		Jul 22	Aug 6	Aug 6	Jul 7	Jul 22	Aug 6	Oct
		——% control ——			——% injury ——			lb/A
Express + Assure II	0.167 oz + 8 fl oz	88	93	99	7	2	1	2008
Express + Assure II	0.25 oz + 8 fl oz	91	94	99	13	13	6	1789
Express + Assure II	0.33 oz + 8 fl oz	91	96	99	16	26	7	1604
Express + Assure II	0.67 oz + 8 fl oz	85	88	100	39	58	44	873
Raptor	4 fl oz	90	98	99	2	0	1	2135
Control		98	99	100	0	0	0	1987
LSD (0.05)		8	5	NS	2	6	6	477
CV		5	3	1	7	21	31	15

^aExpress + Assure II treatments were applied with NIS at 0.5% v/v, Raptor was applied with NIS and 28% N at 0.25% v/v and 2.5 gal/100 gal, respectively.