Preplant thifensulfuron&tribenuron in canola. Howatt, Kirk A., Ronald F. Roach, and Janet D. Harrington. The experiment was established to determine canola response to preplant thifensulfuron&tribenuron. Preplant (PP) treatments were applied on May 14 with 47 F, 59% relative humidity, 0% cloudcover, 4 to 8 mph wind and soil temperature of 54 F. Pre-emergene (PRE) treatments were applied on May 24 with 58 F, 59% relative humidity, 80% cloudcover, 5 to 9 mph southeast wind and soil temperature of 51 F. " Rider" canola was planted May 22. Treatments were applied with a backpack type plot sprayer delivering 8.5 gpa at 40 psi through 11001 flat fan nozzles to a 7 ft wide area the length of 10 by 30 ft plots. A 4 by 20 ft dried swath was combined from each plot on August 2. The experiment was a randomized complete block design with four replicates.

Early season canola population in herbicide treated plots was not different from untreated control (data not shown), but plants were severely stunted and chlorotic. Canola responded similarly to thifensulfuron & tribenuron whether applied at planting or 7 days prior to planting. Thifensulfuron & tribenuron at 0.15 & 0.07 oz/A reduced yield to 53% of untreated and delayed flower and pod maturity by an estimated 4 days. Accidental substitution of thifensulfuron for thifensulfuron & tribenuron at 0 DBP did not result in greater crop safety. (Dept. of Plant Sciences, North Dakota State University, Fargo).

Table. Preplant Thifensulfuron&tribenuron in canola (Howatt, Roach, and Harrington).

Treatment[a]	Rate	Application timing	Jun-18 Canola injury	Jun-25 Canola injury	Jul-22 Canola Maturity[b]	Aug-02 Yield
	(oz/A)	(DBP)	(%)	(%)	(days)	(lb/A)
Thif&trib+NIS	0.15&0.07+0.25%	PP	45	58	4	650
Thif&trib+NIS	0.25&0.13+0.25%	PP	55	74	6	670
Thif&trib+NIS	0.5&0.25+0.25%	PP	92	89	13	530
Thif&trib+NIS	0.15&0.07+0.25%	PRE	50	58	4	640
Thif&trib+NIS	0.25&0.13+0.25%	PRE	76	78	8	670
Thifensulfuron+NIS	0.75+0.25%	PRE	94	85	10	380
Untreated	0		0	0	0	1230
C.V.			16	12	28	31
LSD 5%			14	11	3	260

[a]NIS, non-ionic surfactant was Activator 90 from Loveland Industries, Greeley, CO.
[b]Canola maturity expressed as estimated maturity lag compared to untreated.