

Long-term Canada Thistle control in wheat (2002)

Alsen wheat was planted May 4, 2001 into 6-inch rows in a conventional tillage system. Individual plots were 10 x 50 ft and replicated three times. Herbicide treatments were applied postemergence (5-leaf) on June 7, 2001 and pre-harvest on August 10, 2001. The wheat was harvested on August 16, 2001. We intended to apply a post-harvest treatment, but there was no Canada thistle regrowth due to very dry conditions. Canada thistle plants were counted in each 10 x 50 ft plot prior to herbicide application in 2001 and again in 2002 to determine the long-term impact of the 2001 herbicide treatments.

Treatment	Rate	Wheat stage	Canada thistle density per plot	
			2001	2002
2,4-D amine / Roundup	0.5 pt / 1 qt	5-leaf / PRE-H	12	6
Banvel + 2,4-D ester / Roundup	3 fl oz + 0.5 pt / 1 qt	5-leaf / PRE-H	19	17
Express + 2,4-D ester	0.167 oz + 0.75 pt	5-leaf	15	41
Express + 2,4-D ester / Roundup	0.167 oz + 0.75 pt / 1 qt	5-leaf / PRE-H	18	9
Bronate / Roundup	1 pt / 1 qt	5-leaf / PRE-H	4	2
Curtail	2 pt	5-leaf	11	7
Express + 2,4-D ester + Starane	0.167 oz + 0.5 pt + 0.33 pt	5-leaf	32	60
Express + 2,4-D ester + Starane ^a	0.167 oz + 0.5 pt + 0.33 pt	5-leaf	69	195
Banvel + 2,4-D ester ^a	3 fl oz + 0.5 pt	5-leaf	12	25
2,4-D ester / Roundup	0.75 pt / 2 qt	5-leaf / PRE-H	46	16
Curtail ^a	2 pt	5-leaf	28	19
Banvel + 2,4-D ester / Distinct	3 fl oz + 0.5 pt / 6 oz	5-leaf / PRE-H	32	45
2,4-D ester / Roundup + Distinct	0.75 pt / 1 qt + 6 oz	5-leaf / PRE-H	46	18
2,4-D ester ^a	0.75 pt	5-leaf	40	40
Untreated			81	356

^aDid not receive a post-harvest application of Roundup due to dry conditions and no weed regrowth.

Curtail applied in-crop or any in-crop treatment followed by Roundup applied pre-harvest reduced Canada thistle densities in 2002 compared to initial densities in 2001. In contrast, Canada thistle densities increased where in-crop treatments (other than Curtail) were not followed by a pre-harvest application of Roundup. Canada thistle densities increased where Distinct was applied pre-harvest, but decreased where Roundup was applied with Distinct pre-harvest.