

## Yellow Nutsedge Control in Soybean, 2001

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Two experiments were conducted on soybean to evaluate soil applied and postemergence herbicides on yellow nutsedge near Fosston and Mentor MN. 'Gold Country 3104 Roundup Ready' soybean was planted at 150,000 seeds per acre in 22 inch rows on May 17 at Fosston. Preplant incorporated herbicides were incorporated with a Melroe multi-weeder/harrow with two passes made in opposite directions. A Roundup Ready soybean variety was planted with a drill in 12 inch rows on June 8 at Mentor. Soil applied herbicides were applied preemergence. Treatments at both sites were arranged in a randomized complete block design with four replications. Herbicide treatments were made to the center 6.6 ft of 10 x 25 ft plots with a CO<sub>2</sub> backpack sprayer delivering 10 gpa at 30 psi and equipped with XR80015 flat fan nozzles. Poast and crop oil (1.5 pt + 1.5 pt) were applied at both sites to provide foxtail control.

Environmental conditions and application information are listed below:

	Fosston				Mentor		
Date	May 16	June 26	July 3	July 10	June 11	July 10	July 17
Application	PPI	POST	POST	POST	PRE	POST	POST
Sky	Cloudy	Clear	Clear	Clear	Clear	Clear	P Cloudy
Wind mph	4-6 W	0	3-4 S	2 S	5-9 SW	1-5 S	3 SE
Temp	74°F	68°F	65°F	62°F	71°F	60°F	85°F
Soil	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Crop stage	-	2-trif	3-4 trif	5-6 trif	-	1-2 trif	4 trif
Nutsedge	20 plants/ft <sup>2</sup>				13 plants/ft <sup>2</sup>		

**Table.** Yellow nutsedge control, Fosston MN (Holen, Holder, Severson, Cameron)

Treatment	Rate (pints/acre)	Timing	Aug 8 Y. Nutsedge ---(%)---
Lasso	5.5	PPI	54
Dual II	1.67	PPI	80
Frontier	1.75	PPI	67
Authority	5.3 oz	PPI	56
Authority	4 oz	PPI	50
Frontier+Authority	1+4 oz	PPI	64
Dual II+Authority	1+4 oz	PPI	76
Roundup Ultra	2	4 inch	67
Roundup Ultra/ Roundup Ultra	1.5 / 1.5	4 in / 7 day	91
Roundup Ultra	2	6-8 inch	95
Basagran+COC	2+2	4 inch	69
Basagran+COC/ Basagran+COC	1+2 / 1+2	4 in / 7 day	64
Dual II / Basagran+COC	2 / 2+2	PPI / 4 in	81
LSD ( 0.05)			21

**Table.** Yellow nutsedge control, Mentor MN (Severson, Holen, Holder)

Treatment	Rate (pints/acre)	Timing	Aug 8 Y. Nutsedge ---(%)---
Lasso	5.5	PRE	37
Dual II	1.67	PRE	67
Frontier	1.75	PRE	58
Authority	5.3 oz	PRE	32
Authority	4 oz	PRE	22
Frontier+Authority	1+4 oz	PRE	32
Dual II+Authority	1+4 oz	PRE	49
Roundup Ultra	2	4 inch	88
Roundup Ultra/ Roundup Ultra	1.5 / 1.5	4 in / 7 day	94
Roundup Ultra	2	6-8 inch	92
Basagran+COC	2+2	4 inch	85
Basagran+COC/ Basagran+COC	1+2 / 1+2	4 in / 7 day	95
Dual II / Basagran+COC	2 / 2+2	PRE / 4 in	94
LSD ( 0.05)			17

Roundup provided very good yellow nutsedge control when applied in a split application and at the later (6-8 inch) application timing. The soil applied herbicides provided good early season suppression but were less effective on later emerging plants and did not appear adequate on the Aug 8 evaluation. Preplant incorporated herbicides provided somewhat better nutsedge control than herbicides applied preemergence. Dual II followed by Basagran and crop oil was one of the better non-Roundup treatments.