2007 Turfgrass Weed Control Summary – Yellow Nutsedge Ronald Calhoun and Aaron Hathaway Dept. of Crop and Soil Sciences Michigan State University

Two experiments were conducted to explore herbicide differences on yellow nutsedge control (*Cyperus esculentus*). These trials were conducted at the Hancock Turfgrass Research Center (HTRC) at a site with a history of heavy yellow nutsedge pressure. This site is not irrigated, but is lower than the surrounding area, so it is often wet. For the postemergence trial percent control was determined using the Henderson-Tilton pre-count/post-count method.

The 2007 FMC/Valent Postemergence Yellow Nutsedge Control Trial was treated on June 15. Percent control was determined on July 11 (26 DAT [days after treatment]) and August 13 (59 DAT). Table 1 contains the complete treatment list and results for this trial. Only Dismiss at the high rate (0.25 lb ai/A) provided control comparable to Certainty. The two lower rates provided only moderate control of yellow nutsedge.

V-10142 is an experimental Valent herbicide – the active ingredient is unknown to us. Twenty-six DAT, both rates of V-10142 + NIS were providing good control of yellow nutsedge while Certainty was providing excellent yellow nutsedge control. However, by August 13, Certainty and both rates of V-10142 + NIS both provided excellent control of yellow nutsedge.

The 2007 FMC Preemergence Yellow Nutsedge Control Trial applications A and B were treated on May 8 and May 23, respectively. Population evaluations are expressed as yellow nutsedge centers (1 inch radii). Table 2 contains the complete treatment list and results for this trial.

Overall, application timing B was much more effective for preemergence control of yellow nutsedge. The high rate of Echelon Granular applied early provided some significant suppression of yellow nutsedge 41 DAT-A, while the same treatment applied 15 days later was the only treatment that differed from the untreated on June 5 and June 18. Application B of Dismiss at 0.250 lb ai/A and Echelon at 0.750 lb ai/A also provided significant control on June

18 (26 DAT-B). All other treatments on all other dates showed no significant preemergence control of yellow nutsedge. By August 13, conditions in Michigan were so dry that the yellow nutsedge population as a whole significantly dwindled. No turf injury was noticed in the trial area.

Table 1: FMC/Valent Postemergence Yellow Nutsedge Control Trial - 2007

HTRC, East Lansing, MI	_			
Treatment	Rate	July 11 26 DAT	August 13 59 DAT	
	_	percent control		
DISMISS 4F	0.125 lb ai/A	47 d	62 c	
DISMISS 4F	0.188 lb ai/A	62 c	67 bc	
DISMISS 4F	0.250 lb ai/A	82 b	89 abc	
CERTAINTY	1.25 oz/A	91 a	99 a	
V-10142 NIS	0.5 lb ai/A 0.25 % v/v	82 ab	99 a	
V-10142 NIS	0.75 lb ai/A 0.25 % v/v	83 ab	96 ab	
UNTREATED		0 e	0 d	
LSD (p=0	).05)	8.8	29.0	

<sup>†</sup>Means in a column followed by the same letter do not significantly differ (P=0.05, LSD).

**Table 2: FMC Preemergence Yellow Nutsedge Control - 2007** HTRC, East Lansing, MI

			Yellow Nutsedge					
Treatment	Rate (lb ai/A)	App. Timing	June 5 28 DAT-A 13 DAT-B	June 18 41 DAT-A 26 DAT-B	July 11 64 DAT-A 49 DAT-B	August 13 97 DAT-A 82 DAT-B		
			centers					
Dismiss	0.125	Α	27 ab	47 b	35 ab	14		
Dismiss	0.250	Α	7 cd	38 bc	23 b-e	10		
Echelon	0.375	Α	39 a	64 a	48 a	9		
Echelon	0.750	Α	15 bcd	31 bcd	32 abc	3		
Echelon Gran	0.375	Α	14 bcd	25 cde	19 cde	5		
Echelon Gran	0.750	Α	10 cd	14 ef	12 e	4		
Dismiss	0.125	В	16 bcd	27 cde	19 cde	2		
Dismiss	0.250	В	6 cd	14 ef	14 de	3		
Echelon	0.375	В	20 bc	39 bc	30 bc	5		
Echelon	0.750	В	7 cd	14 ef	16 cde	3		
Echelon Gran	0.375	В	8 cd	17 def	10 e	3		
Echelon Gran	0.750	В	3 d	8 f	7 e	1		
Barricade	0.500	Α	16 bcd	41 bc	29 bcd	10		
Untreated			18 bc	32 bcd	16 cde	2		
LSD (p=0.05)			14	17	16	NS		
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<sup>†</sup>Means in a column followed by the same letter do not significantly differ (P=0.05, LSD). NS indicates not significant.