

### 2009 Metribuzin and Vida burndown (L0913).

A field study was initiated near Lincoln, Nebraska to evaluate metribuzin and vida for burndown of winter annual weeds and residual activity prior to a POST herbicide in corn. The experimental design was a randomized complete block with four replications. Plots were 10 feet wide by 30 feet long and located on a Sharpesburg silty clay loam soil with an organic matter content of 3.1 % and a pH of 6.6. Dekalb '6166' was planted on May 8. Corn emerged on May 13. Early preplant herbicides were applied on April 23 and post herbicides on June 4. Herbicides were applied with a tractor mounted sprayer calibrated to deliver 15 gallons per acre at 40 psi with Teejet 110015 AIXR nozzles. The environmental conditions at the time of spraying are given in Table 1. Rainfall received April 13 – May 3 and May 26 – June 14 is listed in Table 2.

No crop injury was observed. Major weeds consisted of henbit (*Lamium amplexicaule*), tansy mustard (*Descurainia pinnata*), velvetleaf (*Abutilon theophrasti*), and green foxtail (*Setaria viridis*) species at average densities of 50, 10, 10, 7 plants /ft<sup>2</sup>. Weed densities were taken at the time of spraying in the center of the plot, two ft<sup>2</sup> samples were taken. Plots were evaluated using visual ratings.

Tank-mixing Vida with glyphosate reduced control of tansy mustard and henbit compared to glyphosate alone. All glyphosate + metribuzin or glyphosate alone treatments effectively controlled henbit and tansy mustard. The benefit of adding metribuzin for residual control of velvetleaf and green foxtail compared to glyphosate alone was limited. The split application of glyphosate+metribuzin or glyphosate followed by glyphosate provided better weed control than a single pass PRE.

Table 1. Environmental conditions at the Time of Herbicide Application.

Date	Air Temperature (F)	Soil Temperature At 4 in (F)	Humidity	Wind Speed & direction (mph)	Time of Day	Application Timing	Weed Heights (inches)			
							LAMAN	DESSS	ABUTH	SETVI
April 23	80	66	45	8	1:00 pm	EPP	3	6	0	0
June 4	70	74	26	3	11:30 am	POST	0	0	4	5

Table 2. Rainfall received April 13 – May 3 and May 26 – June 14.

Date	Amount (in)
April 13	0.09
April 18	0.34
April 26	0.61
May 26	0.56
June 1	0.27
June 2	0.21
June 6	1.14
June 7	0.89
June 12	0.47

Table 3. Weed Control and Yield Evaluations using Metribuzin and Vida for winter annual burndown.

Treatment	Rate lb/acre	Application timing	Henbit	T Mustard	Henbit	T Mustard	Henbit	T Mustard	Velvetlf	Gr foxtl	Velvetlf	Gr foxtl	Velvetlf	Gr foxtl	YIELD	
			CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
			% 4/30/09	% 4/30/09	% 5/6/09	% 5/6/09	% 5/20/09	% 5/20/09	% 5/20/09	% 5/20/09	% 5/20/09	% 6/4/09	% 6/4/09	% 6/18/09	% 6/18/09	bu/acre
GLYFOS X-TRA	1	EPP	86.3	90	92.3	97	96.8	99	32.5	42.5	15	25	12.5	17.5	145.7	
METRIBUZIN + AMS	0.125	EPP														
GLYFOS X-TRA	1	EPP	86.3	90	92.3	98	94.5	96.8	42.5	42.5	32.5	27.5	27.5	20	147.2	
METRIBUZIN + AMS	0.1875	EPP														
GLYFOS X-TRA	1	EPP	90	87.5	98	96.8	98	98	42.5	47.5	12.5	27.5	12.5	22.5	147.7	
METRIBUZIN + AMS	0.25	EPP														
GLYFOS X-TRA	1	EPP	88.8	90	96.8	97	99	99	23.8	42.5	10	17.5	99	99	149.6	
METRIBUZIN + AMS	0.094	EPP														
GLYFOS X-TRA	1	POST														
METRIBUZIN + AMS	0.094	POST														
GLYFOS X-TRA	1	POST	0	0	0	0	0	0	0	0	0	0	99	99	147.9	
ATRAZINE + AMS	1	POST														
Vida	1	EPP	65	65	73.8	73.8	55	50	30	27.5	35	17.5	99	99	149	
GLYFOS X-TRA + AMS	1	EPP														
GLYFOS X-TRA + AMS	1	POST														
GLYFOS X-TRA + AMS	1	EPP	90	88.8	96	96	96.8	96.8	30	35	10	20	99	99	148.4	
GLYFOS X-TRA + AMS	1	POST														
Untreated			0	0	0	0	0	0	0	0	0	0	0	0	114.3	
LSD (P=.05)			8.17	3.46	6.11	3.65	6.93	5.17	12.13	17.11	19.22	19.9	5.92	11.46	3.55	