Spring dandelion control in corn II. West Lafayette, IN, 2003. Dewell, Reece A., William G. Johnson, Jeff W. Barnes, J. Earl Creech, Vince Davis, and Eric Ott. A field study was conducted to evaluate various Dow AgroSciences herbicide combinations for spring dandelion control in corn. The study was conducted at the Purdue University Agronomy Center for Research and Education, on a Chalmers silty clay loam soil with 4% organic matter. Treatments were arranged in a randomized complete block with four replications. Individual plot dimensions were 5 by 12.5 feet. Dekalb 60-09 glyphosate-resistant corn was planted 1.5 inches deep into a no-till seedbed on May 26 in 30-inch rows, at a population of 30,000 seeds/acre. Preplant burndown and early postemergence (EPOST) herbicide treatments were applied with a $CO_2$ backback sprayer delivering 20 gpa and equipped with XR8003 flat fan nozzles. Application dates, weed growth stage, and weather data are listed below:

| Date | May 27 | June 17 |
|---|---|---|
| Treatment | Burndown | EPOST |
| Temperature | | |
| Air (F) | 75 | 76 |
| Soil (C) | 18 | 23 |
| Soil moisture | dry | wet |
| Wind (mph) | 5 to 7 | 2 to 3 |
| Sky cover (%) | 0 | 0 |
| Relative humidity (%) | 30 | 48 |
| Precipitation | | |
| Prior week (inch) | 0.27 | 3.12 |
| Week 1 (inch) | 1.61 | 0.03 |
| Week 2 (inch) | 0.13 | 0.26 |
| | | |
| Corn (inch) | na | 2 to 3 |
| Dandelion (rosettes) | 10 to 12 inch | 12 to 14 inch |

The burndown treatment of acetochlor + atrazine prior to the early postemergence (EPOST) application of glyphosate(GMP) + clopyralid + 2,4-D did not improve activity of the EPOST treatment by itself. No treatment differences were observed at the July 1 rating. By July 16, dandelion control was <60% with both burndown alone treatments. Dandelion control was about 90% for all three treatments containing an EPOST application on July 16 (29 DAT – EPOST). (Dept. Botany and Plant Pathology, Purdue University, West Lafayette, IN).

Table. Spring dandelion control in corn II. West Lafayette, IN, 2003. (Dewell, Johnson, Barnes, Creech, Davis, and Ott).

| Treatment | Rate | Application | June 16 (20 DAT-burndown) | July 1 (14 DAT-EPOST)[a] | July 16 (29 DAT-EPOST)[b] |
|---|---|---|---|---|---|
| | (lb/A) | | -------- TAROF (% Control) -------- | | |
| Glyphosate(GMP)[c]+clopyralid&2,4-D +AMS | 0.75+0.07125&0.375 +2.5 | burndown | 59 | 79 | 58 |
| Glyphosate(GMP)[c]+flumetsulam&clopyralid +AMS | 0.75+0.035&0.09375 +2.5 | burndown | 63 | 83 | 59 |
| Glyphosate(GMP)[c]+clopyralid&2,4-D +AMS | 0.5625+0.07125&0.375 +2.5 | EPOST | na[d] | 80 | 88 |
| Glyphosate(GMP)[c]+clopyralid&2,4-D +AMS | 0.75+0.07125&0.375 +2.5 | EPOST | na[d] | 78 | 90 |
| Acetochlor&atrazine/ +Glyphosate(GMP)[c]+clopyralid&2,4-D +AMS | 1.0&0.75/ +0.5625+0.07125&0.375 +2.5 | burndown/ EPOST | 8 | 75 | 89 |
| Untreated Check | | | 0 | 0 | 0 |
| LSD (0.05) | | | 5 | 11 | 15 |

[a] Evaluation (July 1) is also 35 DAT – burndown
[b] Evaluation (July 16) is also 50 DAT – burndown
[c] Glyphosate(GMP) = Glyphomax Plus from Dow AgroSciences
[d] na: no treatment applied prior to rating date