## Preplant dandelion control with Glyphosate + Group 14 herbicides

The objective of the study was to evaluate preplant dandelion control with glyphosate alone compared to glyphosate tank mixed with Group 14 herbicides (Aim, Sharpen, Spartan, and Valor). All treatments were applied 5 days prior to planting. All treatments were applied May 7 and wheat planted on May 12. All treatments were applied with AMS and MSO.

Glyphosate applied alone or tank mixed with Express or 2,4-D provided approximately 87-90% dandelion control (based on June 15 evaluation). Glyphosate applied with Group 14 herbicides (Aim, Sharpen, Spartan, or Valor) provided only 50-70% dandelion control (based on June 15 evaluation). Thus, if dandelion is the primary weed to be controlled, it would be better to apply glyphosate by itself or with Express or 2,4-D. Glyphosate should be applied separate from Aim, Sharpen, Spartan, and Valor when targeting dandelion or other perennial weeds.

| Table. Preplant dandelion control             | with Glyphosate | + Group |              |           |        |  |
|---|-----------------|---------|--------------|-----------|--------|--|
|   |                 |         | Weed Control |           |        |  |
|   |                 |         |              | Dandelion |        |  |
| Treatment                                     | Rate            | Timing  | May-12       | May-24    | Jun-15 |  |
|   |                 |         | %%           |           |        |  |
| Untreated                                     |                 |         | 0            | 0         | 0      |  |
| Glyphosate <sup>a</sup>                       | 22 oz           | 5 DPP   | 10           | 90        | 89     |  |
| Aim + Glyphosate <sup>ab</sup>                | 1 oz + 22 oz    | 5 DPP   | 52           | 75        | 65     |  |
| Sharpen + Glyphosate <sup>ab</sup>            | 1 oz + 22 oz    | 5 DPP   | 68           | 75        | 63     |  |
| Sharpen + Glyphosate <sup>ab</sup>            | 2 oz + 22 oz    | 5 DPP   | 73           | 77        | 70     |  |
| Spartan + Glyphosate <sup>ab</sup>            | 4 oz + 22 oz    | 5 DPP   | 30           | 57        | 55     |  |
| Spartan Charge + Glyphosate <sup>ab</sup>     | 5 oz + 22 oz    | 5 DPP   | 58           | 77        | 66     |  |
| Valor + Glyphosate <sup>ab</sup>              | 2 oz + 22 oz    | 5 DPP   | 45           | 65        | 50     |  |
| Express + Glyphosate <sup>ac</sup>            | 0.25 oz + 22 oz | 5 DPP   | 13           | 91        | 90     |  |
| Glyphosate + 2,4-D ester <sup>a</sup>         | 22 oz + 0.5 pt  | 5 DPP   | 27           | 87        | 87     |  |
| LSD (0.05)                                    |                 |         | 6.9          | 8.9       | 12.7   |  |
| <sup>a</sup> Applied with AMS (2.5 gal/100 ga | <i>I)</i>       |         |              |           |        |  |
| <sup>b</sup> Applied with MSO (1%)            |                 |         |              |           |        |  |
| <sup>c</sup> Applied with NIS (0.25%)         |                 |         |              |           |        |  |