Wild Garlic Control in No-till Corn and Soybean

Wild Garlic (Allium vineale) is a weed that has shown up in many Indiana no-till corn and soybean fields this spring. Wild Garlic is most troublesome in wheat, where aerial bulblets contaminate harvested grain and impart the garlic flavor into processed products such as wheat flower. The garlic odor and flavor is also transferred to the milk produced by animals grazing wild garlic. Infestations in corn and soybean fields have less adverse effects on the crop, but can spread quickly across fields and are difficult to control with typical burndown treatments of glyphosate and 2,4-D.

Wild Garlic ID and Biology

Wild garlic has several distinct characteristics that can make it easily identifiable including the garlic odor it emits when disturbed. It can be readily identified by its smooth linear basal leaves, which emerge from underground bulbs. The basal leaves will be round in cross section and hollow as compared to wild onion that will have solid leaves that are flat in cross section. The bulbs of wild garlic have a papery outer covering and form reproductive bulblets that can be spread with tillage and are capable of remaining dormant for 1 to 5 years.

This perennial weed will emerge from the bulbs in fall or early spring and grow up to 24” in height. Reproductive stems that produce aerial bulblets will emerge in early summer and plants will typically die back shortly after aerial bulblet production. The spread and reproduction of wild garlic is achieved mainly though the aerial and underground bulblets, although on occasion it can reproduce and spread by seed.

Control

Control of wild garlic with herbicides is achievable, although special considerations of its biology need to be taken into account. Herbicide applications need to be made early in the spring when wild garlic is still actively growing and prior to aerial bulblet production. Herbicide options are available for post applications in corn and soybean, but are often considered dismal, as aerial bulblet production and ensuing plant die back usually have begun by this time in the growing season. Burndown applications need to be made with as high of a carrier volume as feasible in order to achieve adequate coverage of the smooth, linear, and erect leaves of wild garlic.

Typical burndown herbicide applications of glyphosate and 2,4-D are variable in controlling wild garlic. Producers wanting to control wild garlic with burndown applications need to include a thifensulfuron and/or chlorimuron-containing product in their burndown program. Products containing thifensulfuron and chlorimuron are listed in Table 1 along with cropping restrictions, application rates, and application comments specific to wild garlic control. These products should be added to existing burndown programs of glyphosate and/or 2,4-D to achieve control of all weed species present as well as wild garlic; some products require the addition of 2,4-D for complete wild garlic control. Producers experiencing high infestations of wild garlic should use high rates of the Harmony products to achieve optimal wild garlic control.
### Table 1. Herbicides containing the active ingredients chlorimuron and/or thifensulfuron for increased burndown control of wild garlic in no-till corn and soybean fields.

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Active Ingredients</th>
<th>Application Timing and Planting Restrictions</th>
<th>Recommended Product Rate&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Additional Comments&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
</table>
| Envive         | Chlorimuron: 9.2%  
                Flumioxazin: 29.2%  
                Thifensulfuron: 2.9% | Not labeled  
                        Fall through spring and up to 3 days after planting  | 2.5 to 5.3  
                        oz/A                                                                 | Apply to 3” or smaller wild garlic plants. Tank mixes with glyphosate and/or 2,4-D are strongly encouraged for increased efficacy |
| Synchrony XP   | Chlorimuron: 21.5%  
                Thifensulfuron: 6.9% | Not labeled  
                        45 days preplant to just prior to soybean emergence | 0.375 to 0.75 with glyphosate  
                        1 to 3 with 2,4-D                                                                 | Apply to 3” or smaller wild garlic plants. Addition of 0.5 lb ai 2,4-D required for complete control of wild garlic |
| Canopy EX      | Chlorimuron: 22.7%  
                Tribenuron: 6.8% | Not labeled  
                        1.1-2.2 oz: Fall to 7 days before plantings  
                        2.3-3.3 oz: Fall to 14 days before planting | 1.1 to 3.3  
                        oz/A                                                                 | Apply to 3-6” wild garlic plants. Addition of 0.5 lb ai 2,4-D required for complete control of wild garlic |
| Harmony SG     | Thifensulfuron: 50% | Up to crop emergence                                     | 0.75 to 0.9  
                        oz/A                                                                 | Apply to actively growing wild garlic plants that are less than 12” tall with at least 2-4” of new growth |
| Harmony Extra SG| Thifensulfuron: 33.33%  
                    Tribenuron: 16.67% | At least 14 days prior to planting  
                        At least 7 days prior to planting | 0.75 to 0.9  
                        oz/A                                                                 | Apply to actively growing wild garlic plants that are less than 12” tall with at least 2-4” of new growth |

<sup>a</sup> Thifensulfuron and chlorimuron containing products are sensitive to soil pH, please refer to label for soil pH restrictions and application rates.

<sup>b</sup> Burndown programs containing 0.5 lb ai 2,4-D must be applied at least 7 days prior to soybean planting.

* Table contents derived from herbicide labels. Free herbicide labels can be accessed online at [www.cdms.net](http://www.cdms.net) or [www.greenbook.net](http://www.greenbook.net).

#### Sources: