

IOWA STATE UNIVERSITY

Extension and Outreach

Integrated Crop Management

Preemergence Herbicide Options for Planted Soybean Fields

May 24, 2017

The spread of multiple herbicide resistant weeds brought an end to the era of total postemergence programs in soybean. Unfortunately, a prolonged rainy period prevented applications of preemergence treatments on many planted soybean fields in certain areas of the state. By the time fields are fit for field operations soybeans likely will be emerging and limit herbicide options in those fields. Without careful management and a bit of good fortune, this situation will make it difficult to stay ahead of the weeds for the remainder of the season. Controlling emerged weeds and applying an effective residual herbicide in these fields should be a top priority moving forward.

If soybeans are already in the ground, there is a good likelihood the planned preemergence program cannot be used once fields dry out. HG 14 products (e.g. flumioxazin, sulfentrazone) are the backbone of many preemergence programs; labels of most products containing these active ingredients restrict applications to within three days of planting. Delayed applications greatly increase the risk of injury due to the likelihood of the hypocotyl being exposed to high concentrations of the herbicide on the soil surface.

Injury symptoms associated with preemergence herbicides are described in [another ICM News article](#).

Table 1 lists herbicides that can be applied following soybean emergence for residual weed control. Herbicide common names are used due to the abundance of products on the market. Read the herbicide label prior to use as restrictions may vary on products. Although the products available for application after crop emergence are not as

broad-spectrum as materials used before emergence, they will increase the odds of staying ahead of weed problems throughout the season.

Table 1. Residual herbicides approved for use following soybean emergence

Active ingredient	acetochlor
HG	15
Comments	Active on grasses, small-seeded broadleaves. Will not control emerged weeds. Apply through R2 stage. Warrant and Warrant Ultra are the only acetochlor formulations approved for use in soybean.

Active ingredient	metolachlor
HG	15
Comments	Active on grasses, small-seeded broadleaves. Will not control emerged weeds. Apply through 3 rd trifoliate stage.
Active ingredient	dimethenamid
HG	15
Comments	Active on grasses, small-seeded broadleaves. Will not control emerged weeds. Apply through 5 th trifoliate stage.
Active ingredient	pyroxasulfone
HG	15
Comments	Active on grasses, small-seeded broadleaves. Will not control emerged weeds. Apply through 3 rd trifoliate stage.

Active ingredient	imazethapyr
HG	2
Comments	Will provide both pre and postemergence activity of many broadleaf species. Most waterhemp is resistant.
Active ingredient	fomesafen
HG	14
Comments	A maximum of 1.25 pts/A may be applied. Multiple applications of HG 14 products per season are not recommended.

Even with the recent cool temperatures, weeds are still emerging in fields. Scout fields prior to application of the preemergence product to determine if a postemergence product is necessary. Control these weeds as soon as possible with an appropriate herbicide (e.g. glyphosate if glyphosate-resistant beans), and include the preemergence herbicide with this application. Many winter annuals (e.g. marestail) may be too large for consistent control in no-till fields. Adding multiple products to try to improve control is usually unproductive.

Corn does not pose as significant a challenge due to the wider availability of products and generally wider windows for application. However, treating these fields with a combination of products to both control emerged weeds while they are small and provide residual control is also critical.

Links to this article are strongly encouraged, and this article may be republished without further permission if published as written and if credit is given to the author, Integrated Crop Management News, and Iowa State University Extension and Outreach. If this article is to be used in any other manner, permission from the author is required. This article was originally published on May 24, 2017. The information contained within may not be the most current and accurate depending on when it is accessed.

Category: Weeds

Crop:

Soybean

Tags: delayed preemergence

Author:



Bob Hartzler *Professor of Agronomy*

Dr. Bob Hartzler is a professor of agronomy and an extension weed specialist. He conducts research on weed biology and how it impacts the efficacy of weed management programs in corn and soybean. Dr. Hartzler also teaches undergraduate classes in weed science and weed identificatio...