

3-26-2008

Starting Clean in No-till

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Recommended Citation

Hartzler, Robert G., "Starting Clean in No-till" (2008). *Integrated Crop Management News*. 960.
<http://lib.dr.iastate.edu/cropnews/960>

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Starting Clean in No-till

Abstract

As more Iowa fields develop a history of no-till production, infestations of winter annual weeds are on the increase. The first step in managing winter annuals is proper identification of the species infesting the field. Many agronomists are relatively weak at identifying these weeds. A regional extension publication - *Early spring weeds on no-till crop production* (NCR 614) - can assist in this process.

Keywords

Agronomy

Disciplines

Agricultural Science | Agriculture | Agronomy and Crop Sciences

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Starting Clean in No-till

ICM News

March 26, 2008

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As more Iowa fields develop a history of no-till production, infestations of winter annual weeds are on the increase. The first step in managing winter annuals is proper identification of the species infesting the field. Many agronomists are relatively weak at identifying these weeds. A regional extension publication - *Early spring weeds on no-till crop production* (NCR 614) - can assist in this process.

After the weeds have been identified, appropriate treatments and application timing can be selected. Applications in early to mid-April often have advantages compared to treatments made at planting.

First, winter annuals will be in a vegetative stage of growth and frequently are much easier to kill than when they reach the reproductive stage around planting

time. Secondly, research has shown that killing existing vegetation at least 10 days prior to planting minimizes the risk of negative effects on crop growth and yield. Finally, combining 2,4-D with glyphosate or other products improves the consistency of control on many common winter annuals and dandelion. Early spring applications avoid conflicts with the planting delays specified on the 2,4-D label for both corn and soybean, therefore minimizing risks of adverse crop responses.

The particular herbicide treatment used for controlling winter annuals is dictated by the weeds present and objectives of the treatment. Due to high frequency of glyphosate resistant horseweed (marestail) across the Midwest, applications of glyphosate alone are not recommended for fields infested with this weed. Including 2,4-D LVE will improve control of horseweed.

The use of preemergence (PRE) herbicides in glyphosate resistant (GR) crops is likely to increase due to the increased cost of glyphosate. Most PRE products can be applied early with burndown herbicides, but early applications will reduce their length of residual control.

Reduced rates of PRE herbicides are popular with GR crops since the PRE herbicides are not expected to provide full season weed control. Too large of a reduction in the PRE rate combined with an application several weeks ahead of planting may result in failure to suppress weeds long enough to allow a single, in-season application of glyphosate to provide full season control and protect crop yields.

Bob Hartzler is a professor weed science with extension, teaching and research responsibilities.

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Bob Hartzler is a Professor of Agronomy and an Extension Weed Specialist. Hartzler conducts research on weed biology and how it impacts the efficacy of weed management programs in corn and soybean. He also teaches undergraduate classes in weed science and weed iden...

