

# Agronomy "Crib" Notes



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## Fall Scouting and Treatment of Invasive and Herbicide Resistant Weeds

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Many hard to control weeds, some of which are invasive and herbicide resistant, are finding their way into Indiana fields. As harvest is in full force and frost and freeze warnings are looming, it is a good time to examine fields for problem weeds that have emerged and/or escaped the past season's weed management. These can potentially threaten the success of fields that include conservation cropping systems, buffer practices and permanent cover. Having a good strategy can not only sustain these conservation systems but can add complementary control modes of action to fight these threatening yield robbers. Integrating cover crops into a no-till system has been shown to provide improved weed control. Here are a few strategies that producers should be made aware of.

During harvest, farmers should note any weed populations along the field borders since these areas often do not get full herbicide rates and have less crop canopy to compete with weeds. They should be careful to notice what survived at the edge of corn fields since this is a good indication of what will need to be managed next season when many fields will be rotated to soybeans. Many herbicide resistant broadleaf weeds are more problematic in soybeans than corn, due to a broader range of herbicide options in corn.

**Now** is also the time to look for perennial, biennial and winter annual weeds that have recently emerged and will gain in vigor as the crop canopy dies and is removed during harvest. **Proper identification of all weed species is a must.**

One of the worst weeds is **marestail** since it can germinate in the late summer through fall, survive the winter and have subsequent germination flushes throughout the following spring and summer. Identifying and treating emerged plants in the fall will control the toughest members of this weed that will otherwise have a substantial foot (root) hold by spring. These can be treated prior to seeding cover crops with a non-residual herbicide tank mix or even in established grass cover crops. For example, once the Cereal Rye is up there may be a warm enough window, after the first frost and before a hard freeze, to apply a selective broadleaf herbicide. The same strategy holds true for many tough perennials like **thistles** and **dandelion**, or biennials like **poison hemlock** or **garlic mustard**.

A good cover crop stand may help suppress some of these weeds in the spring, but scout those fields anyway. If only a few invasive or herbicide resistant weeds like **Palmer amaranth** are present, then a comprehensive burndown, plus residual herbicide program with multiple modes of action should be used.



*Marestail seedling*



*Poison Hemlock after frost*

Be sure to follow all label instructions and check for plant back restrictions for both the subsequent cash crops and cover crops.

Also, do not forget to scout **Filter Strips, Grassed Waterways and Conservation Reserve Program (CRP)** fields. Many of these can harbor invasive and noxious weeds like **poison hemlock, garlic mustard** and **Canada thistle**. Areas that have been planted to native warm season plants will go dormant after the first frost making it easier to identify and treat the cool season and frost-tolerant problem weeds prior to a hard freeze (26° - 28° F for 4-5 hours).



*Garlic Mustard after a frost*

### ***Reminders & Additional Resources***

Purdue Pest and Crop Newsletter - <http://extension.entm.purdue.edu/pestcrop/2013/index.html>

Purdue Extension-Invasive Species Fact Sheets - <http://www.extension.purdue.edu/extmedia/FNR/FNR-437-W.pdf>

Rapid Spread of Resistant Weeds – Ag Professional 9/13/2013 - <http://www.agprofessional.com/agprofessional-magazine/Rapid-Spread-of-Resistant-Weeds-223339281.html?ref=281>

Fall Weed Control-Ag Answers - Purdue /Ohio State Universities-  
<https://ag.purdue.edu/aganswers/Pages/archive.aspx?story=187>

Marestail - Purdue/Ohio State Universities - [http://agcrops.osu.edu/specialists/weeds/marestail/marestailfact09\\_000.pdf](http://agcrops.osu.edu/specialists/weeds/marestail/marestailfact09_000.pdf)

Biology and Management of Horseweed - <http://www.btny.purdue.edu/weedscience/marestail/ID-323%20HorseWeed.pdf>

2013 Weed Control Guide for Ohio and Indiana - <http://agcrops.osu.edu/specialists/weeds/specialist-links/2010%20Weed%20Control%20Guide.pdf>

Understanding Glyphosate to Increase Performance - <http://www.extension.purdue.edu/extmedia/gwc/gwc-2.pdf>

**Prior issues of this publication are located at** <http://www.in.nrcs.usda.gov/technical/agronomy/agronomy.html>