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Purdue Extension Weed Science

Weed Control Guide for Ohio and Indiana

**Corn
Popcorn
Grain Sorghum
Small Grains
Soybean
Legumes
Grass Pastures
Problematic weeds**

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How Long Have We Had These Problem Weeds?

We sometime think that just when we eliminate one weed in a field, another one comes along and takes its place. Well that is how nature works. But, have you ever wondered where “new” weeds come from once you solved a weed problem or why when you change tillage practices, you get a different population of weeds? My theory is that we have seen a few new weeds enter the state in the past 100 or so years, but if the new weed is not a grass like Johnsongrass, it probably is not a weed that will majorly impact crops. While many weeds have moved into the state with early settlers or were dropped off of wagons and railroad cars, many of the more problem species are native to the area. A few examples of weeds that were transported into the state are velvetleaf, prickly lettuce, kochia, and Johnsongrass.

Many of the weeds that dominated the state in the past, or the ones that we presently have in fields today, are a result of tillage practices, crop rotations, and weed management programs. In earlier days, prior to tractor-powered deep tillage, corn was usually grown about every third year with small grains and a forage legume crop produced in between. Tillage was shallow, and in the years of small grains and forages there was no postemergence tillage in those crops. Records show that the predominate weeds in Indiana from 1888 – 1929 were primarily crabgrass, a group of annual broadleaf weeds, a few biennials, and some shallow rooted

Major Weed Problems 1888 to 1929

Prickly lettuce	Broadleaf plantain
Daisy fleabane	Wild carrot
Bufalobur	Mustard species
Horsenettle	Downy brome
Cocklebur	Crabgrass
Canada thistle	Wild garlic

Major Weed Problems 1929 to 1950

Cocklebur	Bindweed species
Jimsonweed	Canada thistle
Velvetleaf	Morningglories
Quackgrass	Common milkweed
Johnsongrass	Crabgrass

Major Weed Problems in No-Till

Prickly lettuce	Morningglories
Canada thistle	Foxtail species
Daisy fleabane	Moretail
Horsenettle	Common ragweed
Wild carrot	Giant ragweed
Crabgrass	Pigweed species
Mustard species	Common milkweed
Bindweed species	

simple perennials. More people worried about wild garlic than about Canada thistle. As tractor powered equipment increased, people begin to moldboard plow and go to more monoculture crops like corn, or later a corn soybean rotation. With these practice changes, we began to see a different set of weed problems including annual broadleaf weeds and deep-rooted creeping

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perennials. Crabgrass was still the dominate grass.

In the 1950's and 60's both fertilizer and herbicide use increased. This is when we began to see giant foxtail overtake crabgrass as the predominate grass species, and also see the pigweeds and lambsquarter species appear in crops. As herbicide selection allowed us to go to reduced or no-till, a strange thing happened. All of those weeds that were present in fields back in the early days begin to reappear. However, we still managed to keep the weeds we had in the tillage years. By reducing tillage, those weeds that do not fare well under aggressive tillage were able to survive well under no-tillage. Since those weeds were not the major weed problems present in fields when herbicides were introduced after the early 1950's, there was little resistance selection pressure on them. Many of the broadleaf weeds that were present during the herbicide years began to show high degrees of tolerance or resistance to herbicides.

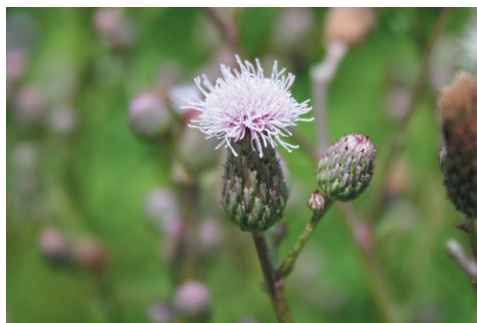
We have always had our set of major problem weeds. We have just shifted them around with tillage and herbicide use.



Downy brome: *M. Ross*



Buffalobur: *G.R.W. Nice*



Canada thistle: *G.R.W. Nice*



Common cocklebur: *M. Ross*



Broadleaf plantain: *Virginia Tech Weed Identificaiton Guide*



Common ragweed: *G.R.W. Nice*

Information listed here is based on research and outreach extension programming at Purdue University and elsewhere. The use of trade names is for clarity to readers of this site, does not imply endorsement of a particular brand nor does exclusion imply non-approval. Always consult the herbicide label for the most current and update precautions and restrictions. Copies, reproductions, or transcriptions of this document or its information must bear the statement 'Produced and prepared by Purdue University Extension Weed Science' unless approval is given by the author.

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Wild Garlic: Virginia Tech Weed Identification Guide



Giant ragweed: B. Johnson



Horsenettle: M. Ross



Common milkweed: M. Ross



Daisy fleabane: G.R.W. Nice



Horseweed/marestail: G.R.W. Nice



Morningglory: W. Everman



Giant foxtail: G.R.W. Nice



Jimsonweed: G.R.W. Nice



Wild carrot: G.R.W. Nice

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