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 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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**Major Weed Problems 1888 to 1929**
- Prickly lettuce
- Daisy fleabane
- Bufalobur
- Horsenettle
- Cocklebur
- Canada thistle
- Prickly lettuce
- Broadleaf plantain
- Wild carrot
- Mustard species
- Downy brome
- Crabgrass
- Wild garlic

**Major Weed Problems 1929 to 1950**
- Cocklebur
- Jimsonweed
- Velvetleaf
- Quackgrass
- Johnsongrass
- Cocklebur
- Bindweed species
- Canada thistle
- Morningglories
- Common milkweed
- Crabgrass

**Major Weed Problems in No-Till**
- Prickly lettuce
- Canada thistle
- Daisy fleabane
- Horsenettle
- Wild carrot
- Crabgrass
- Mustard species
- Bindweed species
- Morningglories
- Foxtail species
- Moretail
- Common ragweed
- Giant ragweed
- Pigweed species
- Common milkweed
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.
How Long Have We Had These...

Wild Garlic: Virginia Tech Weed Identification Guide

Giant ragweed: B. Johnson

Common milkweed: M. Ross

Daisy fleabane: G.R.W. Nice

Horsenettle: M. Ross

Morningglory: W. Everman

Giant foxtail: G.R.W. Nice

Horseweed/marestail: G.R.W. Nice

Jimsonweed: G.R.W. Nice

Wild carrot: G.R.W. Nice

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