

# Reevaluation

Check fields after management action has been taken to determine the effectiveness of the control.

Monitor fields in mid-summer to detect weed escapes or new infestations.

Conduct a fall weed survey to determine weed species that may pose risks the following season.

**Always read and follow herbicide labels.**

## Common Weed Species in New York

### Annual Broadleaf Weeds

Bedstraw, Common  
Buckwheat, Wild  
Chickweed, Common  
Cocklebur, Common  
Corn Speedwell  
Groundsel, Common\*  
Henbit  
Jimsonweed  
Lambsquarters, Common\*  
Morning Glory, Ivy Leafed  
Mustard, Wild  
Nightshade, Black  
Pigweed, Redroot  
Pigweed, Smooth\*  
Purslane, Common  
Ragweed, Common\*  
Smartweed, Pennsylvania  
Sunflower, Wild  
Velvetleaf

### Annual Grasses

Barnyard Grass  
Crabgrass, Large  
Fall Panicum  
Foxtail, Giant  
Foxtail, Green  
Foxtail, Yellow  
Wild Oat  
Wild Proso Millet  
Witchgrass

\*Triazine Resistant Strains

### Winter Annuals

Chamomile, Corn  
Deadnettle, Purple  
Shepherd's Purse

### Biennial Weeds

Burdock  
Carrot, Wild  
Rocket, Yellow  
Thistle, Bull

### Perennial Weeds

Bindweed, Field  
Bindweed, Hedge  
Chickweed, Mouseear  
Dandelion, Common  
Hemp Dogbane  
Horsenettle  
Johnson Grass  
Milkweed, Common  
Nutsedge, Yellow  
Plantain, Buckhorn  
Quackgrass  
Thistle, Canada  
Wire Stem Muhly



New York State  
**Integrated Pest Management**  
Program

We develop sustainable ways to manage pests and help people to use methods that minimize environmental, health, and economic risks.

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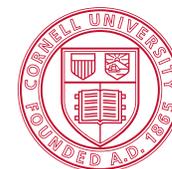
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# Weeds in Corn

## Management Guide



NEW YORK STATE  
**IPM**  
Integrated Pest Management  
PROGRAM



**Cornell University**  
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# Identification

## Life Cycle

**Summer Annual:** Seed germinates in spring or early summer. Plants produce seed by end of growing season.

**Winter Annual:** Seed germinates in late summer or early fall. Plants produce seed next spring.

**Biennial:** Seed germinates in the spring or early summer. Plants take 2 years to complete life cycle.

**Perennial:** **Plants live more than two years.** They reproduce by seed and vegetative methods, such as bulbs, tubers, creeping root and rhizomes, or by simple roots.

## Plant Type

**Broadleaf:** have broad or wide leaves, net venation and two cotyledons, or seed leaves.

**Grass:** narrow leaves with parallel veins, one cotyledon, stem is hollow and round or flattened.

**Sedge:** narrow leaves with parallel veins, one cotyledon, stems triangular ... usually solid.

# Sampling

Weed surveys **identify weed problems** and help efficiently target timely control measures.

Check **field history records** from previous years to help identify potential weed problems.

Walking each field quarter and **recording observations** can help you assess weed problems.

## Spring Weed Survey

- Conduct early season pre-plant and postemergence (corn emergence to 5-leaf stage) **weed surveys**, particularly if prior surveys are not available.
- Estimate **weed infestations** (by predominant species) using the Weed Rating Scale below.

## Fall Weed Survey

- Fall weed surveys help determine **next year's** weed control needs. Survey during August or early September.
- Estimate infestations using the Weed Rating Scale.
- Keep a record of weed infestations by noting species composition and drawing their locations on a field map.

Weed Rating Scale	
None	No weeds present.
Few	Very few weeds within the field. Enough plants to produce seed but not enough to cause significant economic loss in the current year.
Common	Weeds dispersed throughout the field averaging no more than 1 plant per 3 feet of row, or scattered spots of moderate infestation.
Abundant	Fairly uniform concentrations across field. Average concentrations of no more than 1 plant per foot of row or scattered spots of severe infestations.
Extreme	More than 1 plant per foot of row for broadleaf weeds and 3 plants per foot of row for grasses, or large areas of severe infestations.

Keep a record of weed infestations by drawing their locations and logging dominant species composition on a map of the field.

# Analysis

**Broadleaf weeds** are generally harder to control, and more competitive and damaging in broadleaf crops.

**Grass weeds** are generally more difficult to control, and more competitive and damaging in grass crops.

**Perennial broadleaf weeds** are generally more competitive than **annual broadleaf** or **grass weeds**. **Perennial grass weeds** can be fairly competitive depending on severity and growing conditions.

# Management Alternatives

Base pre-plant or pre-emergence weed control programs on **fall or early spring weed surveys**. Consider using:

- Rotary hoes
- Row cultivation
- Post-emergence herbicides
- Banding herbicides and cultivation

# Implementation

**Good timing** is crucial for maximum effectiveness.

**Cultivation** is effective until corn is 2 ½ feet tall.

Adequate moisture is necessary for **soil-applied herbicides** to be effective.

**Postemergence herbicides** are most effective on young actively growing weeds, e.g. when grasses are under 2 inches and broadleaf weeds are under 2-4 inches tall.

What if you have **triazine-resistant** common lambsquarter, smooth pigweed, common groundsel, and common ragweed? Manage them with herbicides having different active ingredients; that is, with a different chemical mode of action.