

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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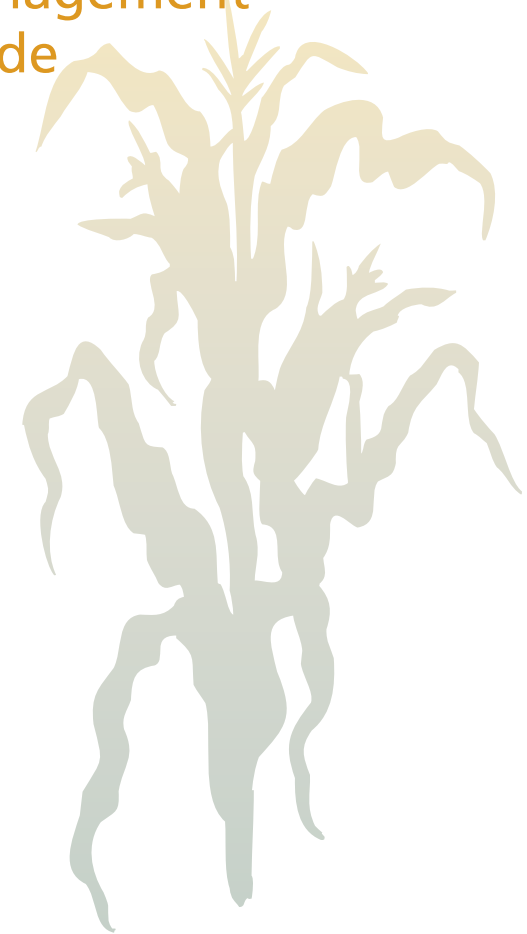
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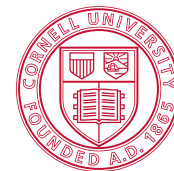
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Weeds in Corn

Management Guide



NEW YORK STATE
IPM
Integrated Pest Management
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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.