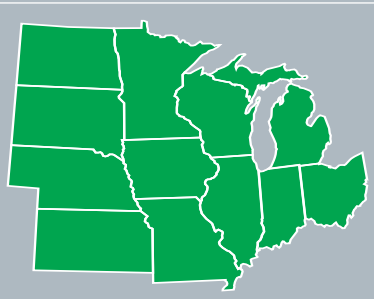
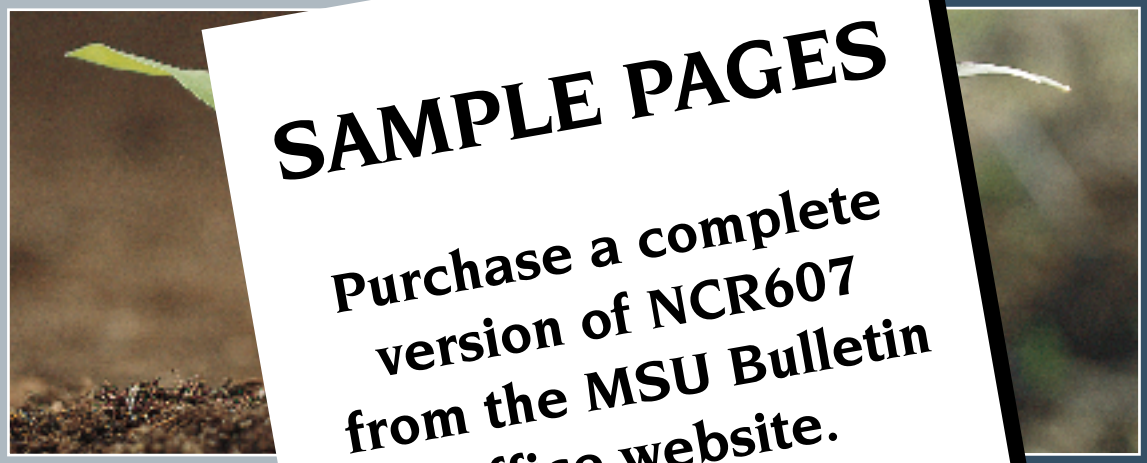


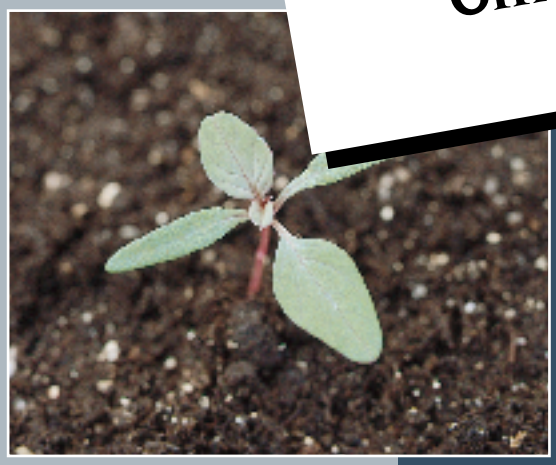
North Central Regional
Extension Publication No. 607

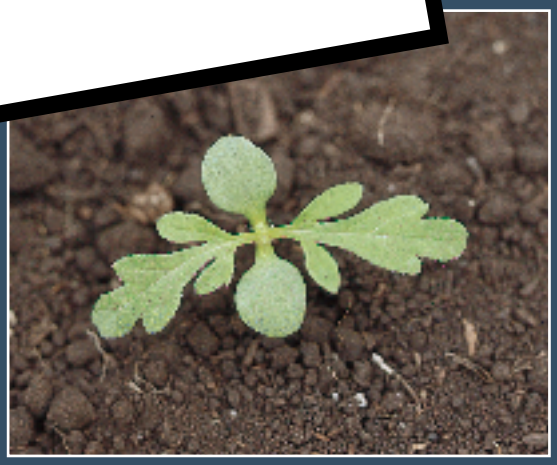
Common Weed Seedlings of the North Central States

Andrew J. Chomas
James J. Kells
J. Boyd Carey

Department of Crop and Soil Sciences
Michigan State University







Foreword

Accurate weed identification is the first step in a successful weed management program. Weed species respond differently to different management strategies. Whether you choose chemical, cultural or mechanical control measures, you need to know what weed species are present. Failure to identify the weed problem accurately may lead to wasted time and money or excess pesticide applied to the environment.

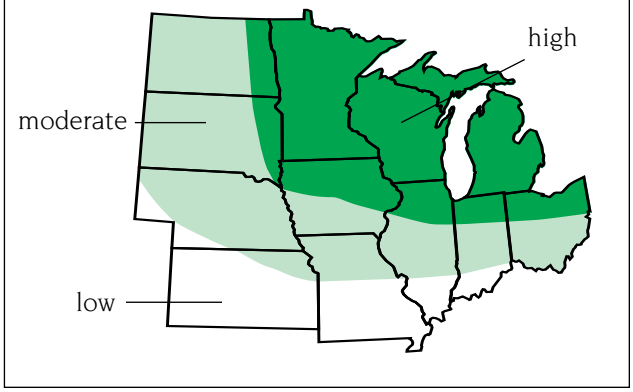
Because most weeds are most effectively controlled at a very young stage, it is important to identify them as early as possible. Unfortunately, many weeds look very similar at a young stage. This guide is designed to help identify seedling weeds while there is still time to control them.

This guide includes 54 of the most common problem weed species in the North Central Region. It is divided into two main sections: grass and grasslike weeds, and broadleaf weeds.

Grass weeds are especially difficult to distinguish, so an identification key is included on page 3. This key gives you a step-by-step progression of questions that will help you identify each species correctly.

An illustrated guide to broadleaf weed characteristics is included on page 2. There is also a glossary of terms on page 1. Referring to these sections will help you understand many of the terms used in the written descriptions of each species. An alphabetical index of the weed species is included on page 1 for quick reference.

Frequency of Weeds Key



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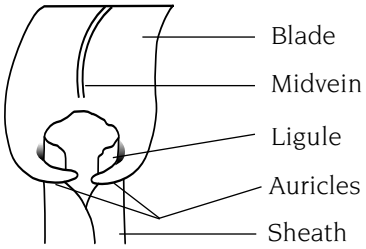
Glossary

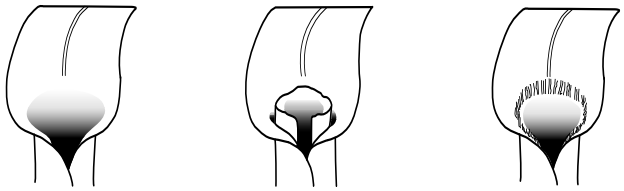
awn – a slender bristle of a grass spikelet.
midrib – the central vein running lengthwise along the underside of a leaf or cotyledon; underside of midvein.
prostrate – lying flat on the soil surface.
rhizome – an underground stem from which new plants may emerge, appears to be a root.
rosette – a cluster of leaves growing from a common point at the soil surface, without a stem.
tuber – underground nutlike storage organ located at tips of rhizomes.

Grass and Broadleaf Characteristics

Grass Morphology

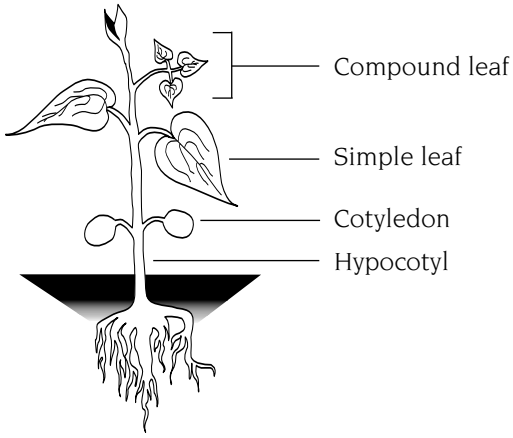


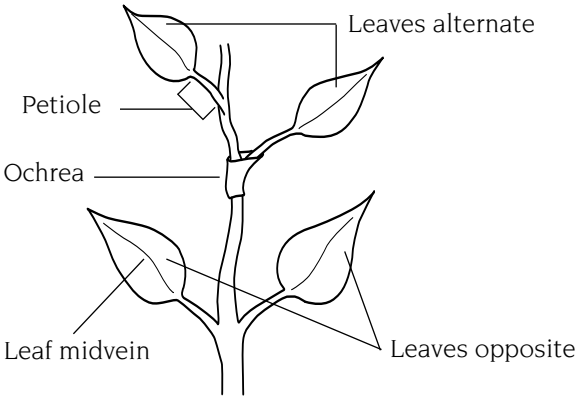
Ligule Types



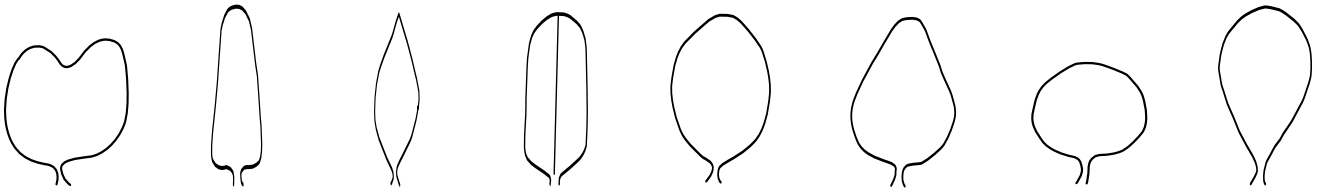
Absent | Membranous | Hairlike

Broadleaf Morphology



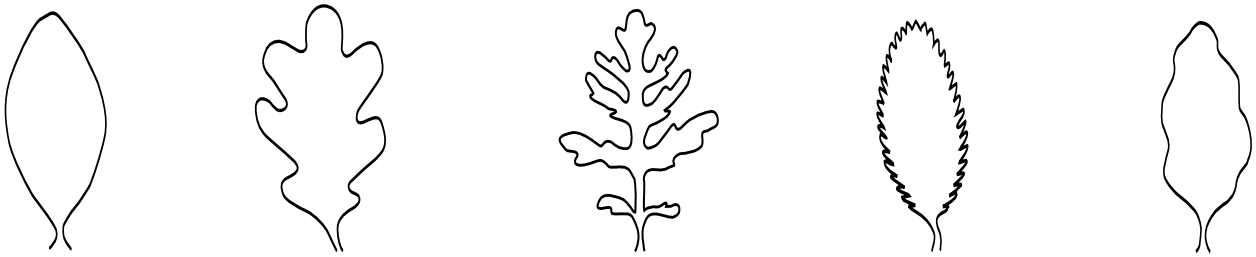


Cotyledon Shapes



Kidney | Linear | Lanceolate | Oblong | Oval | Ovate | Round | Spatulate

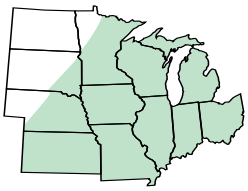
Leaf Margins



Entire | Lobed | Pinnatifid | Serrate or Toothed | Undulate

1. Yellow Nutsedge

(*Cyperus esculentus*)
Perennial. Not a grass species. Stem is triangular, solid and nodeless. Leaves are smooth, hairless and deeply keeled. Whole plant is yellowish to pale green. Tubers (nutlets) usually present at tips of rhizomes.




a.


b.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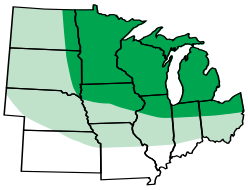
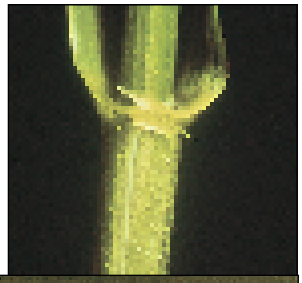
2. Quackgrass (*Elytrigia repens*)

Perennial. Leaf sheath and blade hairless or sparsely hairy. Clasping auricles present. Short, membranous ligule. Rhizomes usually present.

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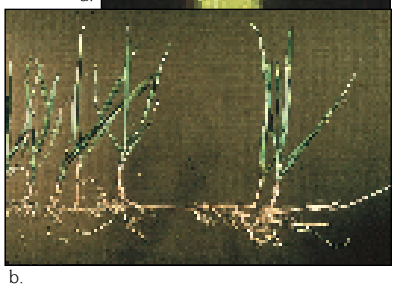
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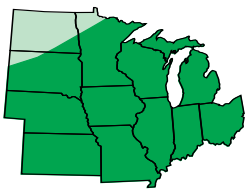
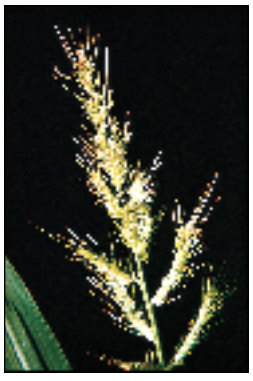
3. Barnyardgrass (*Echinochloa crus-galli*)

Summer annual. Leaf sheath and blade hairless. No ligule. No auricles. Stem flattened.

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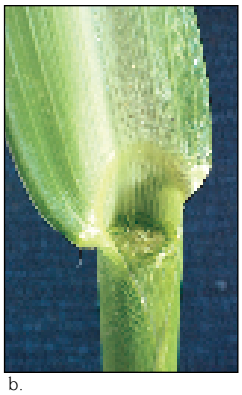
b.


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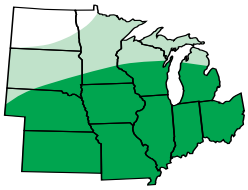
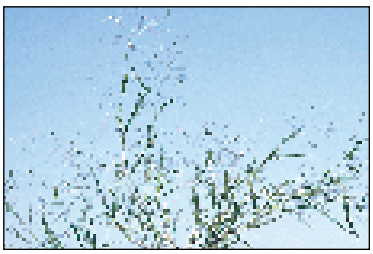
13. Fall Panicum (*Panicum dichotomiflorum*)

Summer annual. Leaf sheath and blade hairless. Hairlike ligule. Leaf midrib prominent and somewhat white on older plants. No hairs on sheath margin. No auricles.





a.

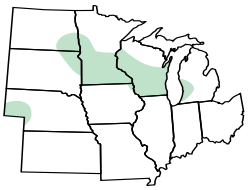
b.

c.

14. Wild-Proso Millet

(*Panicum miliaceum*)

Summer annual. Leaf blade (both surfaces) and sheath hairy. Back of midrib often with a row of hairs protruding at a 90° angle. Hairlike ligule. No auricles. A large, oval-shaped, shiny, dark brown to black seed often persists on the root system.



a.

b.

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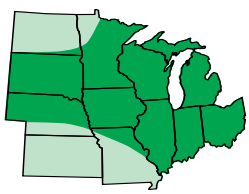
15. Witchgrass (*Panicum capillare*)

Summer annual. Leaf blade (both surfaces) and sheath densely hairy. Hairlike ligule. Leaf midrib prominent. No auricles. Seed smaller and less persistent than that of wild-proso millet.



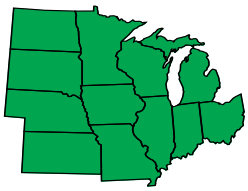
a.

b.

c.

25. Pigweed (Redroot, Smooth) (*Amaranthus retroflexus*, A. *hybridus*)

Summer annual. Cotyledons linear and hairless. Leaves are alternate and ovate with a small notch or indentation at the tip. This notch helps differentiate pigweed from eastern black nightshade. Leaves also have purple petioles. Smooth pigweed (A. *hybridus*) looks very similar to redroot pigweed (A. *retroflexus*) as seedlings, but can be differentiated by reproductive structures. Photo 25b is redroot pigweed.



a.

b.

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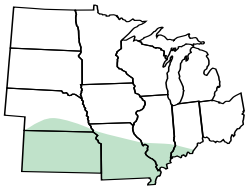
26. Palmer Amaranth (*Amaranthus palmeri*)

Summer annual. Cotyledons are linear and hairless. Leaves with few or no hairs; stem and leaf surfaces are smooth. Petioles are often longer than leaf blades. Plants often have a poinsettia-like appearance with symmetrical leaf arrangement. Leaves occasionally have a V-shaped pattern on blade. Each plant is either male or female.



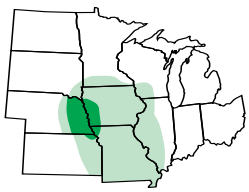
a.

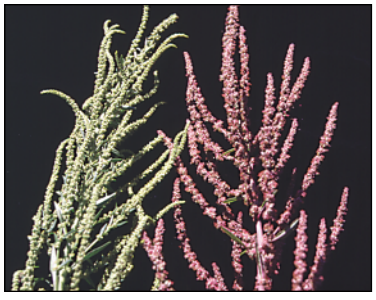
b.

c.

27. Waterhemp (*Amaranthus rudis*, A. *tuberculatus*)

Summer annual. Cotyledons are egg-shaped. Leaves are narrowly ovate to lanceolate, alternate, often waxy in appearance. There are no hairs. Stem and leaf surfaces are smooth. Each plant is either male or female.





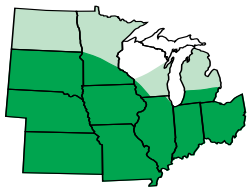
a.

b.

c.

31. Common Cocklebur

(*Xanthium strumarium*)
Summer annual. Cotyledons are smooth, waxy and lanceolate and may be protruding from the bur. Leaves are alternate and triangular to ovate with a rough, sandpaper feel.



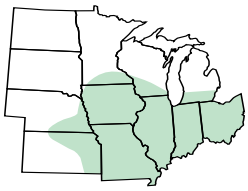

a.


b.


c.

32. Jimsonweed

(*Datura stramonium*)
Summer annual. Cotyledons smooth and lanceolate. Hypocotyl is often hairy. Leaves are smooth and alternate with petioles. Seedling has an unpleasant odor when crushed.



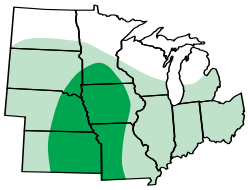

a.


b.


c.

33. Common Sunflower

(*Helianthus annuus*)
Summer annual. Cotyledons are oval. Leaves are alternate, simple, rough, hairy, mostly with saw-toothed margins tapered to a point.



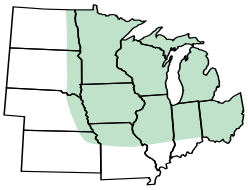

a.

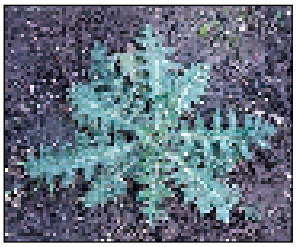

b.


c.

43. Bull Thistle (*Cirsium vulgare*)

Biennial. Cotyledons are round to spatulate, hairless and fleshy. First leaves are oval to spatulate with spines and a rough, bumpy surface. Forms rosette with adult leaves becoming pinnatifid and with dense hairs on undersurfaces.





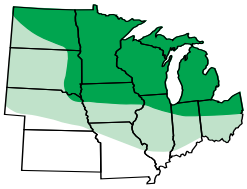
a.

b.

c.

44. Canada Thistle (*Cirsium arvense*)

Perennial. Cotyledons are dull green, relatively thin. Leaves are alternate, usually with crinkled edges and spiny margins somewhat lobed and smooth.



a.

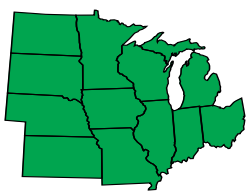
b.

c.

45. Common Dandelion

(*Taraxacum officinale*)

Perennial. Cotyledons are spatulate. Produces a rosette of leaves arising from a crown. Leaves are simple, lobed and variable. Contains a milky juice.



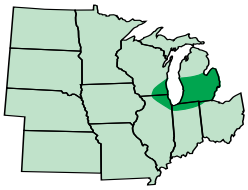
a.

b.

c.

49. Common Purslane (*Portulaca oleracea*)

Summer annual. Cotyledons are linear and hairless. Leaves are opposite with each pair rotated around the stem 90° from the previous pair. Leaves are smooth and spatulate, thick, fleshy and without hairs. Stems are prostrate and reddish.



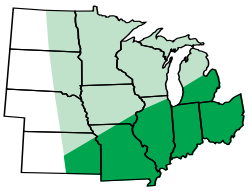
a.

b.

c.

50. Common Chickweed (*Stellaria media*)

Summer or winter annual. Cotyledons are lanceolate. Seedling is small, pale green and only sparsely hairy. First leaves have very pointed tips and petioles. Hypocotyl is slender and often reddish.



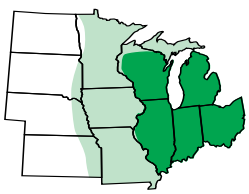
a.

b.

c.

51. Wild Carrot (*Daucus carota*)

Biennial. Cotyledons are linear, long and smooth. The first emerging leaf and subsequent leaves are compound, lacy and pinnatifid. Seedling similar in appearance to cultivated carrot.



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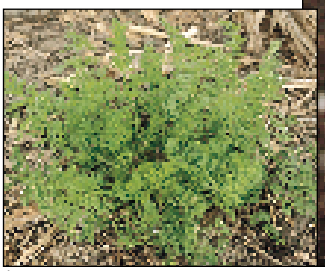

b.

c.

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