

# Weed Identification

Presented on 17 April 2014 to NW Michigan growers

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Weeds are “plants out of place”.

Blackberries are a crop plant in a berry patch,  
but weeds in vineyards.

# Weeds are “competitors”.

Weeds can reduce vigor and yields by competing for water/nutrients..

Tall weeds that growth into the grape canopy prevent sunlight from reaching grape leaves, reducing the amount of light energy the vine can absorb.

# Weeds are “problem makers”.

Dense weed growth can create or hold high humidity conditions in the vineyard, contributing to fungal disease pressure.

Certain weeds are alternate hosts for insects and diseases of vines.

Plants are named and grouped using the binomial system. Each plant has a:

Species name (like our first name)

Genus name (like our last name)

European wine grape= *Vitis vinifera*.

Genus

Species

The genus *Vitis* contains other grape species closely related to cultivated types:

*Vitis riparia* is the River Bank grape.

Binomial names are recognized around the world.

Plants also have common names, but these are confusing because they differ from area to area.

Example, the troublesome weed *Convolvulus arvensis* is also known by the common names field bindweed, morningglory, and creeping jenny.



# Two related species with the same genus name.

*Amaranthus retroflexus*  
Redroot pigweed

*Amaranthus albus*  
Tumble pigweed



Plants are further grouped into families that may contain hundreds of species. The *Compositae* family contains many related species such as dandelion, marestail and Canada thistle.

Knowing plant families can be useful because some herbicides are effective on weeds in certain families.

### Some weeds in the Composite family

Wild carrot



Dandelion



Canada thistle





# Weeds are also placed in general groups:

## Grasses

Family: *Gramineae*

Crabgrass



## Broadleaf weeds

Family: many

Pennsylvania smartweed



# Other General Groups

Rushes  
Slender rush



Sedges  
Yellow nutsedge



Horsetail  
*Equisetum arvense*



# Plants are also grouped by life cycle:

Annuals: complete their life cycle in less than a year.  
Examples: redroot pigweed, lambsquarter, ragweed.

Biennials: complete life cycles in less than two years.  
Examples: bull thistle, spotted knapweed, burdock.

Perennials: can grow for more than two years.  
Examples: dandelion, yellow nutsedge, field bindweed.

Annuals: come up from a seed, grow quickly, flower, produce more seed, then die.



Usually have fine roots, no large fleshy parts below ground.

Most controlled by preemergent herbicides.

Perennials: start from seed one year, then come up from same plant in later years.

## Herbaceous Perennials

*Solanum carolinense*  
Horsenettle



## Woody Perennials

*Sassafras albidum*  
Sassafras



# Identifying Perennials

Herbaceous: usually have large fleshy roots or below-ground parts. Often root deeply (hard to pull out of ground).

Woody: permanent woody parts above ground. Trees and vines.



Established perennials are harder to control than annuals, most preemergent herbicides don't control them.

Know the difference:

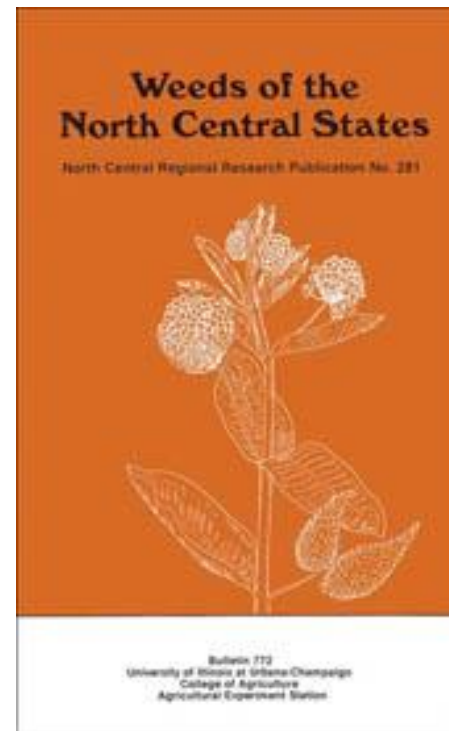
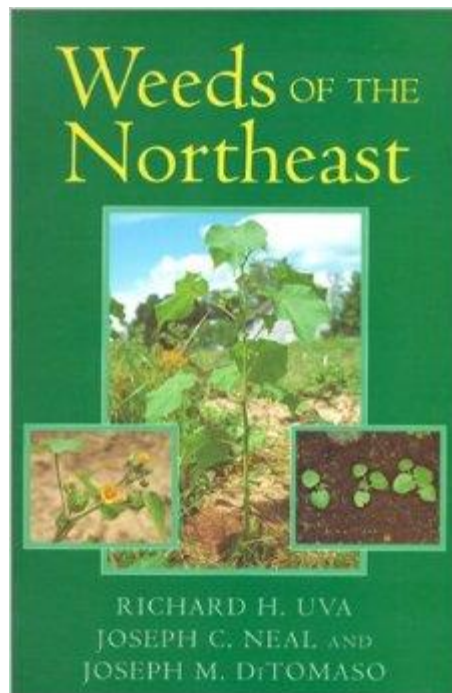
Broadleaves vs Grasses

Annuals vs Perennials

# Useful Weed Identification Sources

Weeds of the Northeast. By Uva, Neal and DiTomaso. 1997. Cornell University Press (\$26.00)

Weeds of the North Central States. By Bucholtz et al. 1981. Univ. Illinois Bul. 772. (\$13.50)





# Annual Grasses

Identify from seed heads



Fall panicum



Witchgrass



Barnyard grass



Crabgrass

Longspine sandbur (*Cenchrus longispinus*)

Field sandbur (*C. incertus*)

Summer annual, clump-forming grass with a prostrate growth habit. Seed head is a spike of spiny burs.

Usually found in sandy soils



[customwise-turftree.com](http://customwise-turftree.com)



[www.sibleynaturecenter.org](http://www.sibleynaturecenter.org)

# Quackgrass (*Elytrigia repens*)

Perennial grass that spread through thick white rhizomes  
Seedhead is a long, thin spike.

Thrives under many conditions and in many soils



# Yellow Nutsedge (*Cyperus esculentus*)

Perennial sedge (not a grass) with triangular stems, usually less than a foot tall. Spreads by seed and underground tubers (nuts).

Tolerates most conditions but prefers sandy well drained sites.



# Common chickweed

*(Stellaria media)*

Low growing winter annual, smooth stems (don't root at nodes).

Tolerates almost  
all conditions

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# Mouseear chickweed

(*Cerastium vulgatum*)

Low growing perennial with hairy stems and leaves, may root at stem nodes.

Tolerates most conditions

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# Prostrate knotweed

(*Polygonum aviculare*)

Low growing summer annual, emerges early in spring, forms a thick mat of thin strong stems.

Tolerates most conditions



# Knawel

(*Scleranthus annuus*)

Low growing winter or summer annual, emerges very early.  
Forms a thick low mat that dies back in late summer.

Prefers sandy sites





# Common mallow or Cheeseweed (*Malva neglecta*)

Low growing annual (may over-winter). Distinct round leaves, grows up to a foot tall.

Tolerates most  
conditions



# Henbit

(*Lamiun amplexicaule*)

Low growing winter annual, emerges very early. Forms a thick mat. Pink-purple flowers in May.

Prefers moist sites.

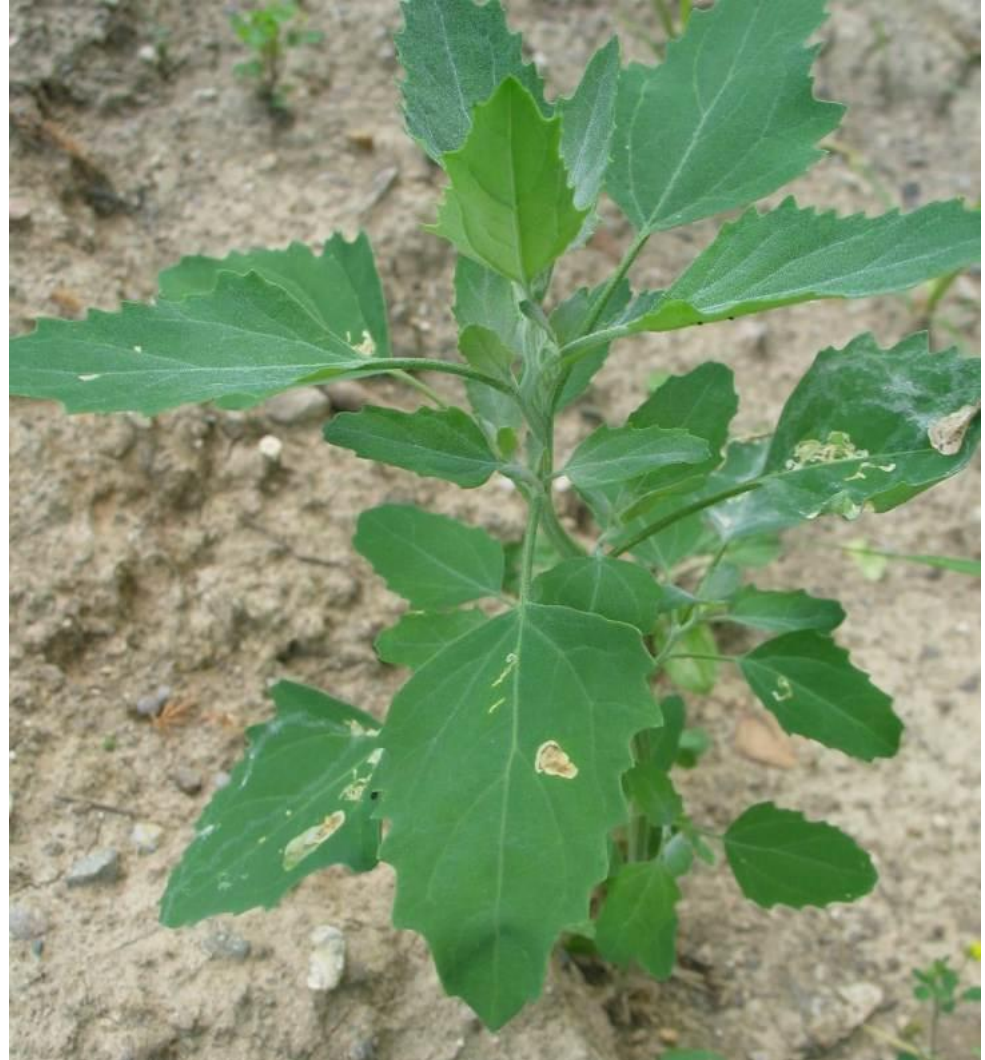


# Lambsquarters

(*Chenopodium album*)

Erect summer annual can grow several feet tall. Leaves are toothed and have a gray appearance on lower sides.

Tolerates most conditions.



# Marestail, Horseweed

(*Conyza canadensis*)

Upright winter annual with a single erect stem that can grow several feet tall. Abundant small flowers in top.

Tolerates  
most sites.



# Eastern black nightshade

(*Solanum ptycanthum*)

Summer annual with erect branches.  
Small white flowers, distinctive shiny  
black berries in late summer.

Prefers moist, fertile soils



# Vetches (*Vicia spp.*)

Vine-like trailing herbaceous annuals or perennials.  
Distinctive compound leaves, flowers and seed pods

Tolerate diverse  
soils and sites.



# Dandelion

(*Taraxicum officinale*)

Tap-rooted low growing perennial, with distinctive yellow flowers.

Tolerates diverse soils and sites.

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# Red clover (*Trifolium pratense*)

Herbaceous perennial that forms clumps with 1-2 ft long stems, distinct pink flowers on terminals.

Prefers moist, fertile soils.

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# Red Sorrel (*Rumex acetosella*)

Herbaceous creeping perennial that forms mat less than a foot tall. Distinctive reddish flower stalks and seeds

Tolerates most conditions, but prefers acidic, sandy sites

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# Curly Dock (*Rumex crispus*)

Herbaceous perennial with a deep taproot and upright single stem. May grow to several feet tall. Distinctive seed clusters on top.

Prefers moist, fertile heave soils.

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# Pokeweed (*Phytolacca americana*)

Herbaceous perennial with tall upright hollow stems, and distinctive purple/black berries in clusters late in summer.

Tolerates most conditions, but thrives on rich sandy soils.



# Horsenettle (*Solinum carolinense*)

Herbaceous perennial with thorny 1-2 foot tall stems and distinctive yellow/green berries. Spreads via creeping rhizomes.

Grows on many soils but prefers deep sandy sites.



# Field Bindweed (*Convolvulus arvensis*)

Herbaceous, vine-like perennial with arrowhead-shaped leaves, small white/pink trumpet shaped flowers. Spreads via rhizomes.

Tolerates most conditions.



# Hedge bindweed, wild morningglory (*Calystegia sepium*)

Herbaceous vine-like perennial with large leaves and showy white/pink trumpet flowers. Spread by rhizomes.

Grows on many soils.



# Bittersweet nightshade

(*Solanum dulcamara*)

Semi-wood perennial vine, with distinctive purple flowers and shiny red berries.

Prefers moist conditions.



# Autumn Olive

(*Elaeagnus umbellata*)

Multi-stemmed, deciduous, woody shrub growing to 20 feet tall. Green/gray leaves and distinctive red berries.

Invades many disturbed sites.





# Virginia creeper

(*Parthenocissus quinquefolia*)

Woody perennial vine, with compound leaves (5 leaflets), small green flowers and blue-black berries arranged in bunches.

Prefers moist, fertile sites.



# Poison Ivy

(*Toxicodendron radicans*)

Woody perennial vine with shiny compound leaves (3 leaflets) and gray/white berries.

Grows under most conditions.

