



A publication of the Louisville Water Company,
Local Planning Team for the
Wellhead Protection Plan

US EPA Source Reduction Assistance Grant
X9-96479407-0
SRAG - 300

Louisville Water Company
550 S. 3rd Street
Louisville, KY 40202
502-569-3600
<http://www.louisvilleky.gov/LWC>

For additional copies, or more information, contact:
Marsha Taylor Meyer
Wellhead Protection Coordinator
Louisville Water Company

Winner of the Exemplary Source Water Protection Award, 2009,
American Water Works Association
2009 Outstanding Watershed Project
Kentucky-Tennessee Water Environment Association



US EPA Source Reduction Assistance Grant
X9-96479407-0
SRAG - 300

Pocket Field Guide to Kentucky's Common Weeds and Other Unwanted Plants



Common Dandelion,

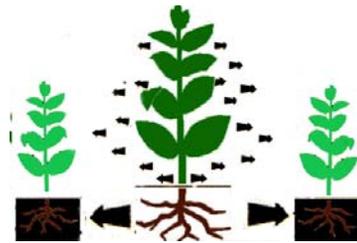
Common Weeds

A **weed** is any plant, considered by the user, to be a nuisance, and is normally applied to unwanted plants in human-made settings, like a garden, lawn, agricultural area, parks, woods, or other natural settings. More specifically, the term is applied to describe **native or non-native plants that grow and reproduce aggressively**.

Weeds may be unwanted because they are unsightly, or they limit the growth of other plants by blocking light or using up nutrients from the soil. They can also be considered a weed if they harbor and spread path pathogens that can infect and degrade the quality of a crop or horticultural plants. Weeds may be a nuisance because they have thorns or prickles, cause skin irritation, act as a poison to livestock, or parts of the plant may come off and attach to fur and clothes.

In a general sense, the term weed is a subjective one, without any classification value, since a weed is not a weed if it is growing where it is wanted or where it belongs. A number of "weeds" have been used in gardens or other cultivated-plant settings, such as wildflower gardens, herb gardens, or gardens designed to attract or sustain wildlife.

The most important characteristic that most weeds share is their ability to reproduce often, quickly, and/or easily, have seeds that persist in the soil bank for many years, or have short life spans with multiple generations in the same growing season. Perennial weeds often have underground stems that spread out under the soil surface, or, like ground ivy, have creeping stems that spread out over the ground. A number of weedy species have developed allelopathy, which is a chemical way to prevent the germination or growth of neighboring plants.



Allelopathy helps some plants spread by preventing other plants from growing nearby.

Most of the species listed here may be controlled by a 2% glyphosate solution, which is the approximate solution found in many pre-mixed products. Again, **READ THE LABEL** carefully to make sure you are purchasing a glyphosate solution that is 1.8% - 2%. A lesser amount may not kill the weed successfully.

Exceptions to the 2% rule include:

Chinese Yam	30%	Common Reed*	
Privet	20%	Winter Creeper	4%
Common Burdock	20%	Common Teasel	12%

*The Common Reed should be controlled by a licensed herbicide applicator.

For further information about Common Weeds, Exotic Invasive Species, and Toxic Plants, please visit our Web site at:

http://www.louisvilleky.gov/LWC/ch_water_quality/

Wellhead Protection

To order a copy on disk of our "Homeowner's Guidebook of Native Plants, Integrated Pest Management, and Pollution Prevention", please contact:

Marsha L. Taylor Meyer
Wellhead Protection Coordinator
Louisville Water Company
550 S. 3rd Street
Louisville, KY 40202
502-569-3600, ext. 1809
mmeyer@lwcky.com



		
Winter Creeper <i>Euonymus fortunei</i>	Yellow Nutsedge <i>Cyperus esculentus</i>	Yellow Rocket <i>Barbarea vulgaris</i>
	 Louisville Water Company 550 S. 3 rd Street Louisville, KY 40202 For more information, please visit our web site: http://www.louisvilleky.gov/LWC/ch_water_quality/ under Wellhead Protection	
Yellow Sweet Clover, (Toxic) <i>Melilotus officianlis</i>		

Weed Control

Control of the weeds, exotic invasive species, and toxic plants is very important in maintaining the natural ecosystem of your area. However, for many of the species listed here, seeds may remain in the soil bank for long periods of time, so control may be on-going for several years. For example, kudzu seeds may lie dormant for 50 years, then sprout and create a problem again.

The US EPA recommends the use of a non-selective herbicide for use in weed control. The term "non-selective" means that the herbicide will kill all forms of plant life, so when applying the herbicide, make sure to protect the desirable plants located nearby. The chemical name of the specific herbicide recommended for us is [glyphosate](#).

Glyphosate may be found under many name brands. Before you purchase an herbicide, first identify the plant, then, **READ THE LABEL** on the pre-packaged herbicide carefully, to make sure you are purchasing the product that is needed for the job.

The plants listed here as common weeds are but a sampling of the plants considered being 'weeds' that are common to Kentucky. Some plants that are desirable to promote wildlife growth and habitat are considered to be 'weeds' in the agricultural industry. Some plants are known to promote wildlife habitat and growth, but are listed as non-native, invasive threats by the Kentucky Plant Council. If cultivating a plant listed here as a 'weed' or non-native, invasive species for decorative purposes, to promote wildlife, for a wildflower garden, or for an herb garden, be careful that the plant does not spread and compete with native plants that are more nutritious and less invasive.

Some of the plants listed here may require professional identification prior to treatment for control, in order to protect closely related native species. Contact your County Cooperative Extension for help in identifying plants. In the Louisville/Metro area, you can contact the Jefferson County Cooperative Extension at 502-569-2344.

Non-native Invasive Species

A plant is considered exotic, (alien, foreign, non-indigenous, non-native), when it has been introduced by humans to a location outside its native or natural range. Most invasive, exotic plants have escaped cultivation or have spread from its origin and have become a problem or a potential problem in natural biological communities.

The real issue is the impact that exotic plants have on native ecologies.

Exotic plants have shown that they can alter ecosystem processes, displace native species, support populations of non-



Kudzu is an exotic plant that has spread from Japan and China to the US. Local, state, and the federal governments spend millions of dollars annually to control the spread of kudzu, with limited success. Seeds can remain dormant in the ground for 50 years or more.

native animals, fungi, or microbes, hybridize with native species and alter gene pools.

European settlers brought hundreds of plants to North America to their home lands for use as food, medicine, and for ornamental, sentimental, and other purposes. These plants, however much a part of our current landscapes and ecosystems, are nonetheless exotic, since they were moved here by people. Unfortunately, many of these have become invasive pests that are having serious impacts to native species and ecosystems. Exotic plant sales are still in practice today.

What makes an Exotic Species Invasive?

Many non-native species exist in apparent harmony in environments where they were introduced. The most important aspect of an alien plant is how it responds to a new environment. An invasive species is one that displays rapid growth and spreads, establishes over large areas, and persists.



Queen Anne's Lace was introduced by European settlers in the 1600's. A form of wild carrot, it has a variety of medicinal uses.

Invasiveness is characterized by robust vegetative growth, high reproductive rate, abundant seed production, high seed germination rate, and longevity. Even some native plants can exhibit invasive tendencies in certain situations.

According to the Plant Conservation Alliance' Alien Plant Working Group about 1,000 plant species have been reported as being invasive in natural areas in the U.S. This represents an astonishing one-third or so of the exotic plant species that are established and self-reproducing in the wild.

Some invasive species were planted intentionally for erosion control, livestock grazing, wildlife habitat enhancement, and ornamental purposes. Others have escaped from arboretums, botanical gardens, and our own backyards. Free from the complex array of natural controls present in their native lands, (including herbivores, parasites, and diseases), some exotic plants may experience rapid and unrestricted growth in new environments

		
Velvet Grass <i>Holcus lanatus</i>	Velvet Leaf <i>Abutilon theophrasti</i>	Vernal Whitlow Grass <i>Draba verna</i>
		
Watercress <i>Rorippa nasturtium-agaticum</i>	Water Hemlock <i>Cicuta maculata</i>	White Morning Glory <i>Ipomoea lacunose</i>
		
White Snakeroot <i>Eupatorium rugosum</i>	White Sweet Clover, (Toxic) <i>Melilotus al:ba</i>	Wild Garlic <i>Allium vineale</i>
		
Wild Onion <i>Allium canadense</i>	Wild Violet <i>Viola pradicola</i>	Willow Leaf Lettuce <i>Lactuca saligna</i>

Invasive species impact native plants, animals, and natural ecosystems by:

- ◆ Reducing biodiversity;
- ◆ Altering hydrologic conditions;
- ◆ Altering soil characteristics;
- ◆ Interfering with natural selection;
- ◆ Repelling or poisoning native insects;
- ◆ Competing for pollinators
- ◆ Displacing rare plant species;
- ◆ Increasing predation on native birds due to removal of natural habitat and food sources;
- ◆ Serving as reservoirs of plant pathogens;
- ◆ Displacing complex communities with single species monocultures; and
- ◆ Diluting the genetic composition of native plants through hybridization.

Table Color Code

The table shown on the following pages illustrates common weeds, exotic invasive plants, and toxic plants found within the state. Common weeds were described by the Kentucky Department of Agriculture, and researched for this list. The Kentucky Exotic Pest Plant Council also provided information about the significant, severe, and lesser threats of exotic plants on Kentucky's ecosystems. Lastly, for safety's sake, toxic plants were included for those homeowners that have children or own pets.

-  Common Weeds
-  Exotic Invasive, Severe, Significant, or Lesser Threat
-  Severely or Moderately Toxic Plant

The table listed here includes small plants and vines only. Some tree and shrub species are considered to be exotic invasive species, but are not included within this listing.

		
Smartweed <i>Polygonum cespitosum</i>	Speargrass <i>Poa annua</i>	Speedwell <i>Veronica officinalis</i>
		
Spotted Knapweed <i>Centaurea biebersteinii</i>	Spotted Spurge <i>Euphorbia maculate</i>	Star of Bethlehem <i>Ornithoglaum umbellatum</i>
		
Sulphur Five-Fingers <i>Potentilla recta</i>	Tall Ironweed <i>Veronia altissima</i> *also a Native Wildflower	Tall Morning Glory <i>Ipomoea purpurea</i>
		
Thyme-leaf Sandwort <i>Arenaria serpyllifolia</i>	Tobacco <i>Nicotina ssp.</i>	Trumpet Creeper <i>Campsis radicans</i> *also a Native Wildflower

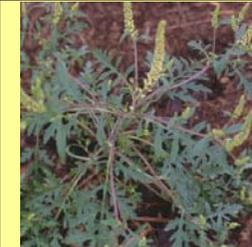
Pocket Guide to Common Kentucky Weeds and Exotic,
Invasive Species

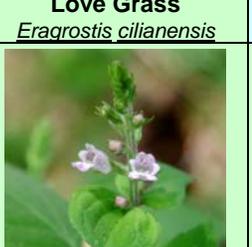
		
Akebia <i>Akebia quinata</i>	Barnyard Grass <i>Echinochloa crus-galii</i>	Bermuda Grass <i>Cynodon dactylon</i>
		
Bigroot Morning Glory <i>Ipomoea pandurata</i>	Bitter Nightshade <i>Solanum dulcamara</i>	Black Medic <i>Medicago lupulina</i>
		
Blackseed Plantain <i>Plantago rugelii</i>	Brackenfern <i>Pteridium aquilinum</i>	Broadleaf Plantain <i>Plantago major</i>
		
Buckhorn Plantain <i>Plantago lanceolata</i>	Bulbous Buttercup <i>Ranunculus bulbosus</i>	Burcucumber <i>Sicyos angulatus</i>

		
Purple Loosestrife <i>Lythrum salicaria</i>	Purple Morning Glory <i>Ipomoea purpurea</i>	Purslane <i>Potulaca oleracea</i>
		
Quackgrass <i>Agropyron repens</i>	Queen Anne's Lace <i>Daucus carota</i>	Ragwort <i>Senio sp.</i>
		
Redroot Pigweed <i>Amaranthus retroflexus</i>	Red Sorrel <i>Rume acetosella</i>	Roughstalk Bluegrass <i>Poa trivialis</i>
		
Selfheal <i>Prunell vulgaris</i>	Shepherdspurse <i>Capsella bursapastoris</i>	Sibara <i>Sibara virginica</i>

		
Nutsedge <i>Cyperus rotundus</i>	Oleander <i>Nerium oleander</i>	Orchardgrass <i>Dactylis glomerata</i>
		
Oxeye Daisy <i>Chrysanthemum leucanthemum</i>	Oriental Bittersweet <i>Celastrus orbiculatus</i>	Pennsylvania Smartweed <i>Polygonum pennsylvanicum</i>
		
Pitted Morningglory <i>Ipomoea lacunosa</i>	Poison Hemlock, (Toxic) <i>Conium maculatum</i>	Poison Ivy <i>Toxicodendron radicans</i>
		
Poison Oak <i>Toxicodendron</i>	Prickly Sida <i>Sida spinosa</i>	Purple Deadnettle <i>Lamium purpureum</i>

		
Canada Bluegrass <i>Poa compressa</i>	Carolina Geranium <i>Geranium carolinianum</i>	Carpetweed <i>Mollugo verticillata</i>
		
Castorbean <i>Ricinus communis</i>	Catnip	Chickweed <i>Stellaria media</i>
		
Chicory <i>Cichorium intybus</i>	Chinese Yam <i>Dioscorea oppositifolia</i>	Clammy Groundcherry <i>Physalis heterophylla</i>
		
Cleavers <i>Galium pedemontanum</i>	Common Burdock <i>Arctium minus</i>	Common Cocklebur, (Toxic) <i>Xanthium strumarium</i>

		
Common Mallow <i>Malva neglecta</i>	Common Milkweed <i>Asclepias syriaca</i>	Common Ragweed <i>Ambrosia artemisiifolia</i>
		
Common Reed <i>Phragmites australis</i>	Common St. John's Wort <i>Hypericum perforatum</i>	Common Teasel <i>Dipsacus sylvestris</i>
		
Common Yellow Wood Sorrell <i>Oxalis stricta</i>	Corn Gromwell <i>Lithospermum arvense</i>	Crabgrass <i>Digitaria ischaemum</i>
		
Creeping Bentgrass <i>Agrostis palustris</i>	Crown Vetch <i>Coronilla varia</i>	Curly Dock <i>Rumex crispus</i>

		
Love Grass <i>Eragrostis ciliaris</i>	Lupine <i>Lupinus polyphyllus</i>	Mexican Tea Plant <i>Cheopodium ambrosioides</i>
		
Miniature Beefsteak <i>Mosla dianthera</i>	Mint <i>Mentha piperita, Mentha spicata</i>	Miscanthus <i>Miscanthus sinensis</i>
		
Motherwort <i>Leonurus cardiaca</i>	Mouse Ear Chickweed <i>Cerastium vulgatum</i>	Multiflora Rosel <i>Rosa multiflora</i>
		
Musk Thistle <i>Cardus nutans</i>	Mustard Family <i>Brassica ssp.</i>	Nimblewill <i>Muhlenbergia shreberi</i>

		
Japanese Stiltgrass <i>Microstegium vimineum</i>	Japanese Honeysuckle <i>Lonicera japonica</i>	Japanese Knotweed <i>Polygonum cuspidatum</i>
		
Jimsonweed, (Toxic) <i>Datura stramonium</i>	Johnson Grass, (Toxic) <i>Sorghum halepense</i>	Kentucky Bluegrass <i>Poa pratensis</i>
		
Kentucky 31 Tall Fescue <i>Festuca elatior</i>	Korean Lespedeza <i>Lespedeza stipulacea</i>	Kudzu <i>Pueraria lobata</i>
		
Lady's Thumb <i>Polygonum persicaria</i>	Lamb's Quarters <i>Chenopodium album</i>	Lesser Periwinkle <i>Vinca minor</i>

		
Cutleaf Groundcherry <i>Physalis angulata</i>	Dallasgrass <i>Paspalum dilatatum</i>	Dandelion <i>Taraxacum officinale</i>
		
Day Lily <i>Hemerocallis fulva</i>	Dayflower <i>Commelina communis</i>	Depford Pink <i>Dianthus armeria</i>
		
Dock, Sheep Sorrell <i>Rumex acetosella</i>	Dwarf Larkspur <i>Delphinium tricorne</i>	Easter Lily <i>Lilium longiflorum</i>
		
Eastern Black Nightshade, (Toxic) <i>Solanum ptycanthum</i>	Eclipta <i>Eclipta prostrata</i>	English Ivy <i>Hedera helix</i>

		
Entireleaf Morning Glory <i>Ipomoea lacunose</i>	Field Bindweed <i>Convolvulus arvensis</i>	Field Cress <i>Thlaspi perfoliatum</i>
		
Field Pennycress <i>Thlaspi arvense</i>	Field Pepperwood <i>Lepidium campestre</i>	Garlic Mustard <i>Alliaria petiolata</i>
		
Giant Ragweed <i>Ambrosia trifida</i>	Goosegrass <i>Eleusine indica</i>	Green False Hellebore <i>Veratrum woodii</i>
		
Green Foxtail <i>Setaria viridis</i>	Ground Ivy <i>Glechoma hederacea</i>	Hairy Bittercress <i>Gardamine hirsuta</i>

		
Hairy Galinsoga <i>Galinsoga ciliata</i>	Hairy Jointgrass <i>Arthraxon hispidus</i>	Hedge Bindweed <i>Calystegia sepium</i>
		
Hemp Dogbane <i>Apocynum cannabinum</i>	Henbit <i>Lamium amplexcaule</i>	Honeyvine Milkweed <i>Ampelamus albidus</i>
		
Horsenettle <i>Solanum carolinense</i>	Horsetail <i>Equisetum arvense</i>	Horseweed <i>Conyza canadensis</i>
		
Indian Strawberry <i>Duchesnea indica</i>	Italian Rye Grass <i>Lolium multiflorum</i>	Ivy-leaved Morning Glory <i>Ipomoea hederacea</i>