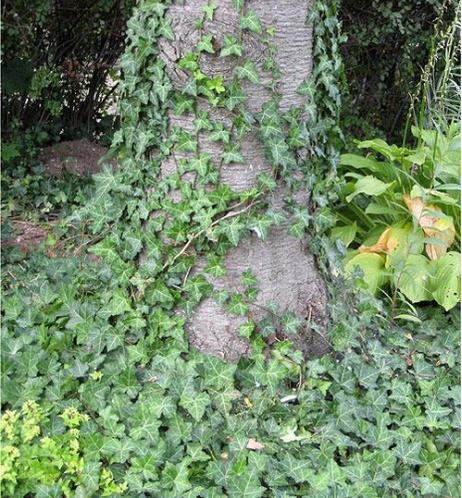


Plant Removal ID Sheets

English Ivy (*Hedera helix*)

<p>Plant Description</p> 	<p>Plant: evergreen perennial climbing vine that attaches to bark of trees and other surfaces by root-like structures that “sweat” a glue-like substance.</p> <p>Leaves: Alternate, dark green, waxy, somewhat leathery, several different shapes of leaves at different stages of maturity typically green with whitish veins.</p> <p>Flowers, fruit and seeds: flowers are greenish-yellow and occur in “starbursts” at tips of stems; fruits are dark purple to black with a fleshy outer layer and stone-like seeds.</p> <p>Spread: by growth at tip of stems; seeds are dispersed by birds and small animals that eat seeds.</p>																								
<p>Growing Season</p>	<p>Flowers occur in late Summer to early Fall, berries persist throughout winter. Evergreen.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="844 938 1948 1019"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td style="background-color: #c8e6c9;"></td> </tr> </tbody> </table> <p>Can be removed all year</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out vines and roots in wet soil, use a spading fork to loosen roots. Cut vines from trees.</p>																								
<p>Herbicide Guideline</p>	<p>Cut and paint on a systemic herbicide (Glysohate) to the cut surface of climbing vines. Best to use this method in the fall.</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Japanese Honeysuckle (*Lonicera japonica*)

<p>Plant Description</p> 	<p>Plant: fast growing perennial semi-evergreen twining vine; stems reddish brown to light brown.</p> <p>Leaves: opposite, oval, about 1-3 in. long, entire margined except for young leaves which are often deeply toothed.</p> <p>Flower, fruits and seeds: flowers are white turning yellow, highly fragrant with nectar; fruits are black and paired.</p> <p>Spreads: seed is dispersed by birds and other small animals that eat berries.</p>																								
<p>Growing Season</p>	<p>All year, flowers in June, fruits persist through winter.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="869 784 1976 865"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td style="background-color: #c8e6c9;"></td> </tr> </tbody> </table> <p>Winter; can be removed all year</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out in wet soil, use a spading fork to loosen roots. Large infestations can be mowed twice or more during the growing season. Revisit site often to repeat process.</p>																								
<p>Herbicide Guideline</p>	<p>Treat large infestations with a systemic herbicide (Glyphosate). Foliar spray on a warm winter day; or cut and spray in late fall.</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Multiflora Rose (*Rosa multiflora*)

<p>Plant Description</p> 	<p>Plant: multi-stemmed shrub, sometimes climbing vine with arching stems and thorns that curve downwards.</p> <p>Leaves: divided into five to eleven sharply toothed leaflets; leaf stalks with fringed wing-like structures called stipules.</p> <p>Flowers, fruits and seeds: clusters of showy, fragrant white to pinkish flowers; small bright red fruits known as hips that remain after petals fall.</p> <p>Spread: seed dispersed by birds; new plants root from tips of arching canes that touch the ground.</p>																								
<p>Growing Season</p>	<p>Flowers in May, hips develop during Summer and persist through winter.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="877 847 1980 928"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> </tr> </tbody> </table> <p>May through October</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out in wet soil, use a spading fork to loosen root. Make a pile and monitor it. Revisit site often to repeat process. Cut plants too large to pull.</p>																								
<p>Herbicide Guideline</p>	<p>Spray leaves with a systemic herbicide (Glyphosate) while plants are in flower (May). Cut and paint stumps with a systemic herbicide in fall.</p>																								
<p>Alternatives to plant</p>	<p>Pasture Rose (<i>Rosa carolina</i>), Swamp Rose (<i>Rosa palustris</i>)</p>																								

Porcelainberry, Amur Peppervine (*Ampelopsis brevipedunculata*)

<p>Plant Description</p> 	<p>Plant: deciduous, woody, perennial vine that resembles a grape and climbs by non-adhesive tendril at each leaf base; stem pith is white. Bark is dotted with white-tan spots and does not peel.</p> <p>Leaves: alternate, simple, 3-5 lobes with heart shaped base and coarsely tooth margins, shiny underneath with hairs on veins.</p> <p>Flowers, fruit and seeds: tiny, greenish-white flowers with petals separate at their tips, occur in flat-topped clusters opposite leaves; fruit is a speckled berry in colors ranging from aqua to pink to purple, each berry carries 2-4 seeds.</p> <p>Spread: seeds dispersed by birds and other small animals that eat berries.</p>																								
<p>Growing Season</p>	<p>Flowers June through August</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="877 927 1969 1008"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td></td> </tr> </tbody> </table> <p>Cut vines in May and June, herbicide in September through November</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull young vines up by hand anytime and try to remove roots; use a spading fork to loosen roots in wet soil</p>																								
<p>Herbicide Guideline</p>	<p>Apply a systemic herbicide (Glyphosate or Triclopyr) to leaves or paint on cut stems, treatment works best in fall</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Garlic Mustard (*Alliaria petiolata*)

<p>Plant Description</p> 	<p>Plant: biennial herb; first year plants are low growing; second year plants produce single or multiple flowering stalks 1-4ft. high and die back in the spring; dried fruiting stalks persists for months.</p> <p>Leaves: first year leaves are kidney-shaped, second year leaves are heart-shaped with toothed edges and pointed tips.</p> <p>Flowers, fruit and seeds: flowers occur in small button-shaped clusters; 4 white petals in a cross form; fruits look-like slender, erect pods.</p> <p>Spread: a single plant can produce hundreds of seeds, most of which fall nearby or may be carried by wind, water, and animals.</p>																								
<p>Growing Season</p>	<p>Plants are evergreen, flowers throughout the spring and summer.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="863 922 1976 1003"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> </tr> </tbody> </table> <p>May, June, October-December</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Hand removal of plants and roots is effective for small infestations. Flowering plants can be cut to the ground, cut plants can resprout.</p>																								
<p>Herbicide Guideline</p>	<p>Foliar spray with 2% Glyphosate in monoculture; must be repeated because of the large seed bank this plant creates in the soil.</p>																								
<p>Alternatives to plant</p>	<p>Butterfly weed (<i>Asclepias tuberosa</i>), black-eyed susan (<i>Rudbeckia spp.</i>) cardinal flower (<i>Lobelia cardinalis</i>)</p>																								

Oriental Bittersweet, Asiatic Bittersweet (*Celastrus orbiculatus*)

<p>Plant Description</p> 	<p>Plant: Woody, twining vine, sometimes occurs as trailing shrub. Drops its leaves in the winter.</p> <p>Leaves: alternate, glossy and rounded with finely toothed margins.</p> <p>Flowers, fruit and seeds: Clusters of small greenish flowers emerge from leaf axils; fruits are round green to yellow that split open at maturity to revealing fleshy red-orange seed cover.</p> <p>Spread: Seeds as dispersed by birds; expands locally by new shoots emerging from specialized roots.</p>																								
<p>Growing Season</p>	<p>Seeds sprout in late spring, flowers in summer, seeds persist through winter.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="863 927 1969 1008"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> </tr> </tbody> </table> <p>May through October</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Cut vines from trees. Pull out by the roots using a weed wrench; or pull out of wet soil, use a spading fork to loosen root.</p>																								
<p>Herbicide Guideline</p>	<p>Cut and paint on a systemic herbicide (Glysohate) to the cut surface of climbing vines. Best to use this method in the fall.</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Chinese Wisteria (*Wisteria sinensis*)

<p>Plant Description</p>  <p><small>©2008 Jeffrey Phippen</small></p>	<p>Plant: Woody twining vine that climbs up tree trunks in a clockwise direction; stems are smooth gray-brown bark and covered in fine white hairs. Drops leaves in winter.</p> <p>Leaves: alternate, compound, 6-10 in. long with 7-13 leaflets; leaflets egg-shaped with wavy margins and strongly tapering tips.</p> <p>Flowers, fruit and seeds: Flowers are purple, occur in long clusters, and open all at once. Fruits are green-brown velvety seedpods narrow toward the base with constrictions between seeds.</p> <p>Spread: locally by seed and new shoots emerging from specialized roots.</p>																								
<p>Growing Season</p>	<p>Flowers occur in April before leaf expansion. Fruit begins to appear midsummer and persists on the vine.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="863 906 1965 987"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td></td> </tr> </tbody> </table> <p>Cut vines in May and June. Spray in September through November.</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Cut vines from trees in spring; hand pull very young and seedling vines making sure to remove roots.</p>																								
<p>Herbicide Guideline</p>	<p>Cut vines and apply a systemic herbicide (Glyphosate) to the cut surface; best to use this method in fall.</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Wineberry (*Rubra phoenicolasius*)

<p>Plant Description</p> 	<p>Plant: Multi-stemmed shrub with spiny stems thickly covered with reddish hairs; hairs also on flowering stems and buds</p> <p>Leaves: alternate, divided into three leaflets with toothed margins, terminal leaflet largest; underside white.</p> <p>Flowers, fruits, and seeds: flowers with five petals occur in springtime; bright red edible berries produced early summer</p> <p>Spread: by seeds which are consumed and dispersed by birds, small animals and humans. New plants root from tips of arching canes that touch the ground.</p>																								
<p>Growing Season</p>	<p>Fruits in June and July</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="871 898 1976 979"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>May through September</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out by roots in wet soil. First, use a spading fork to gently loosen the roots. Revisit site often to repeat process as plants will re-grow.</p>																								
<p>Herbicide Guideline</p>	<p>Foliar spray with a systemic herbicide like Glyphosate.</p>																								
<p>Alternatives to plant</p>	<p>Allegheny blackberry (<i>Rubrus allegheniensis</i>), Thimbleberry (<i>Rubrus odoratus</i>), Spice bush (<i>Lindera benzoin</i>)</p>																								

Privets (*Ligustrum*)

<p>Plant Description</p>  <p><small>©2010 Will Cook</small></p>	<p>Plant: deciduous or semi-evergreen shrub grows 8-20 ft. tall; multi-stemmed trunks with long leafy branches.</p> <p>Leaves: opposite, simple, entire, short stalked, ranging in length from 1-3in. and are oval shaped.</p> <p>Flowers, fruits and seeds: flowers small, white and tubular with four petals and occur in clusters at branch tips; fragrant; fruit is small blue to black oval.</p> <p>Spread: seeds dispersed by birds and through root sprouting.</p>																								
<p>Growing Season</p>	<p>Flowers May to July; fruit matures in late summer to fall, berries and some leaves persist through winter.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="863 911 2001 992"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> </tr> </tbody> </table> <p>November through February</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out in wet soil, use a spading fork to loosen root. Make a pile and monitor it. Revisit site often to repeat process.</p>																								
<p>Herbicide Guideline</p>	<p>For large plants that cannot be pulled out: cut large stems and paint with a systemic herbicide May through October.</p>																								
<p>Native Replacements</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Bamboos (*Bambusa vulgaris*, *Phyllostachys aurea*, *Pseudosasa japonica*)

<p>Plant Description</p> 	<p>Plant: woody stems with hollow centers and solid joints; growing to heights of 7-40ft depending on the variety.</p> <p>Leaves: long and thin with tapering pointed tips; tough can be papery or leathery.</p> <p>Flowers, fruit and seeds: flowers are grass-like and not showy.</p> <p>Spread: locally by vigorous specialized roots</p>																								
<p>Growing Season</p>	<p>Flowering is infrequent</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="842 930 1923 1011"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td></td> </tr> </tbody> </table> <p>June, October and November</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Cut down woody stems and dig up roots. Hand removal is very labor intensive.</p>																								
<p>Herbicide Guideline</p>	<p>Cut woody stems in June. Apply systemic herbicide to cut ends in October and November.</p>																								
<p>Alternatives to plant</p>	<p>Giant reed (<i>Arundinaria gigantea</i>), eastern red-cedar (<i>Juniperus virginiana</i>)</p>																								

Asiatic Bush Honeysuckles (*Lonicera maackii*, *L. tatarica*, *L. morrowii*, *L. X bella*)

<p>Plant Description</p> 	<p>Plant: Upright shrub grows up to 15 -20 ft. high; pith of mature stem is hollow and white or tan. Drops leaves in winter.</p> <p>Leaves: opposite, oval-shaped, lightly hairy, and up to 3.5 in. long.</p> <p>Flowers, fruit and seeds: flowers paired, tubular with 5 petals and upper 4 fused, white to pinkish, fading to yellow; fruits are red to orange-red berries</p> <p>Spread: by fruit, which is abundant and consumed by birds. Vegetative sprouting aids in local spread and persistence.</p>																								
<p>Growing Season</p>	<p>Flowers in springtime though summer; berries mature in late summer and persist through winter.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="869 841 1948 922"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td style="background-color: #c8e6c9;"></td> </tr> </tbody> </table> <p>Can be hand pulled anytime, herbicide May through October only</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out young plants by hand, gently loosen roots with a spading fork throughout the year. For larger plants use a weed wrench or continue to cut down to ground multiple times during the growing season for several years.</p>																								
<p>Herbicide Guideline</p>	<p>For large plants that cannot be pulled out: cut large stems and paint with a systemic herbicide May through October.</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Lesser Celandine, Fig Buttercup (*Ficaria verna*)

<p>Plant Description</p> 	<p>Plant: Perennial herbaceous spring plant with thick roots and bulblets. Leaves die back by summer.</p> <p>Leaves: shiny, dark green, kidney-shaped, and stalked.</p> <p>Flowers, fruit and seeds: glossy, butter yellow flowers above leaves; cream-colored bulblets attached to leafstalks.</p> <p>Spread: primarily by bulblets and spreading roots; bulblets are easily dislodged from plants</p>																								
<p>Growing Season</p>	<p>Emerges in winter before most native species; above-ground portions die back by early June.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="865 906 1976 987"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>March and April</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Small infestations can be dug up, taking care to remove all roots and tubers; very careful removal can prevent the spread this plant.</p>																								
<p>Herbicide Guideline</p>	<p>Apply a systemic herbicide (2% Glyphosate) in a foliar spray as early as possible to avoid impact on native species.</p>																								
<p>Alternatives to plant</p>	<p>Wood poppy (<i>Stylophorum canadense</i>), marsh marigold (<i>Caltha palustris</i>), may apple (<i>Podophyllum peltatum</i>)</p>																								

Japanese Knotweed (*Fallopia japonica*)

<p>Plant Description</p> 	<p>Plant: upright, shrubby perennial 4-10 ft tall with stems smooth, stout and hollow; stem-leaf junctures are swollen. Dies back in winter.</p> <p>Leaves: variable; about 6 in. long by 3-4 in. wide, broadly oval to somewhat triangular with a truncated base and tapered tip.</p> <p>Flowers, fruits and seeds: tiny greenish to white colored flowers, fruits are winged on three sides; seeds are triangular, dark brown, shiny and about 1/10in long.</p> <p>Spread: by seeds and expands locally by new shoots emerging from specialized roots.</p>																								
<p>Growing season</p>	<p>Flowers in mid-summer</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="865 889 1976 971"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>spring and summer</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Hand pull young plants when soil is wet and roots are small. Roots and runners must be removed to prevent resprouting. Revisit site often to repeat process as plants can re-grow</p>																								
<p>Herbicide Guideline</p>	<p>For large infestations, apply 2% solution of Glyphosate on both sides of leaves (spray to wet)</p>																								
<p>Alternatives to plant</p>	<p>Virginia Knotweed (<i>Tovara virginiana</i>), Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), Inkeberry (<i>Ilex glabra</i>)</p>																								

Wavyleaf Basketgrass (*Oplismenus hirtellus*)

<p>Plant Description</p> 	<p>Plant: low growing, shallow rooted, perennial grass, produces long above-ground shoots that branches and roots at lower stem nodes.</p> <p>Leaves: flat, about 1/2. In. wide and 1.5-4 in. long; deep green with ripples leaf surface; leaf sheath and stem are covered in short hairs.</p> <p>Flowers, fruit and seeds: flowers are in spikelets that alternate along the flowering stalk, they are sticky.</p> <p>Spread: by seeds dispersed by wind, water, animal and human traffic; expands locally by rooting at stalks laying on ground.</p>																								
<p>Growing Season</p>	<p>Flowers in late September and October</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="865 922 1953 1003"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> </tr> </tbody> </table> <p>December through July, watch for seed production in late summer</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out by hand. It is best to not work in infested areas during flower and seeding as this could aid in the seed dispersal.</p>																								
<p>Herbicide Guideline</p>	<p>Apply grass selective herbicide Clethodim in mixed flora environments or Glyphosate in large monocultures. Control before seed production.</p>																								
<p>Alternatives to plant</p>	<p>Switchgrass (<i>Panicum virgatum</i>), muhly grass (<i>Muhlenbergia capillaris</i>), little bluestem (<i>Schizachyrium scoparium</i>)</p>																								

Japanese Stiltgrass (*Microstegium vimineum*)

<p>Plant Description</p> 	<p>Plant: Annual grass resembling a delicate bamboo, mature plants grow to 2-3ft. in height.</p> <p>Leaves: pale green, lance-shaped, asymmetrical, about 3in. in length, with shiny midrib.</p> <p>Flowers, fruit and seeds: hidden self-fertilizing flowers in axils and/ or exposed flowers in end stalks of paired hairy spikelets; fruits stiff and prickly.</p> <p>Spread: by seeds dispersed by wind, water, animal and human traffic; expands locally by rooting at stalks laying on ground.</p>																								
<p>Growing Season</p>	<p>Flowers in late summer to fall</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="867 857 1944 938"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>April-September for hand removal</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out by hand any time during the growing season. This will need to be repeated for years to deplete the seed bank. Cut back in late season with a mower or weed whacker to prevent plants from going to seed.</p>																								
<p>Herbicide Guideline</p>	<p>Apply grass-selective herbicide (Clethodim) in mixed flora environments to reduce impact on woody plants or Glyphosate in monocultures. Control before seed production.</p>																								
<p>Alternatives to plant</p>	<p>Switchgrass (<i>Panicum virgatum</i>), muhly grass (<i>Muhlenbergia capillaris</i>), little bluestem (<i>Schizachyrium scoparium</i>)</p>																								

Beefsteak Plant, Perilla Mint (*Perilla frutescens*)

<p>Plant Description</p> 	<p>Plant: small, freely-branching annual herb that grows to 18-30 inches tall; stems four-sided and covered in short hairs.</p> <p>Leaves: opposite, ovate, green to purple with toothed margins; distinctive musky mint-like odor when crushed.</p> <p>Flowers, fruit and seeds: flowers small, white-purple, and bell shaped with a distinctive ring of fine hairs along the bottom in terminal spikes or emerging from the leaf axils.</p> <p>Spread: by seed that either drops close to the parents or transported by wind and water.</p>																								
<p>Growing Season</p>	<p>Flowers in July and October</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="865 1036 1942 1117"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>July and August</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out by hand, be sure to remove the roots along with the plant. Control is possible with long term monitoring and repeated removal of new plants.</p>																								
<p>Alternatives to plant</p>	<p>Butterfly weed (<i>Asclepias tuberosa</i>), black-eyed susan (<i>Rudbeckia</i> spp.) cardinal flower (<i>Lobelia cardinalis</i>), lobelia (<i>Lobelia</i> spp.), phlox (<i>Phlox</i> spp.).</p>																								

Gill-over-the-ground, Ground Ivy (*Glechoma hederacea*)

<p>Plant Description</p> 	<p>Plant: perennial scrambling plant; stems square and fragile. Dies back in winter.</p> <p>Leaves: opposite, heart-shaped with scalloped margins, about an inch across and have minty- musty odor when crushed.</p> <p>Flowers, fruits and seeds: flowers are ½-3/4 in long, tubular, lavender, paired and emerge from leaf axils; each flower produces a pod containing 4 smooth, tan seeds.</p> <p>Spreads: by creeping stems, shallow fibrous roots form at the base of the plant and at leaf nodes. Reproduction by seed is minimal.</p>																								
<p>Growing Season</p>	<p>All year, flowers March through July.</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="865 922 1974 1003"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Hand removal March through August; spray in winter.</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out by roots in wet soil, use a spading fork to loosen roots. This plant is difficult to control because it is hard to remove all root fragments. Revisit site often to repeat process.</p>																								
<p>Herbicide Guideline</p>	<p>Treat monocultures with a systemic herbicide. On a warm day in winter, spray monocultures with a 2% Glyphosate mix; avoid native evergreens.</p>																								
<p>Alternatives to plant</p>	<p>wild ginger (<i>Asarum canadense</i>), creeping blueberry (<i>Vaccinium crassifolium</i>), partridgeberry (<i>Mitchella repens</i>)</p>																								

Chocolate Vine, Five-Leaf Akebia (*Akebia quinata*)

<p>Plant Description</p> 	<p>Plant: Woody perennial plant that either grows as a twining vine or groundcover; slender stems are green when young, becoming brown when mature. Drops leave in winter.</p> <p>Leaves: alternate, dull blue-green, divided into five stalked leaflets that meet at a central point; leaflets are 1-3 in. long, entire, oval shaped and notched at the tip.</p> <p>Flowers, fruit and seeds: Flowers are reddish to purplish-brown, and have a sweet fragrance likened to chocolate; female flowers are chocolate-purple, male flowers are rosy-purple. Fruit is a large, soft, edible sausage-shaped pod 2-4 in. long</p> <p>Spread: Primarily by vegetative means; infrequently by seed.</p>																								
<p>Growing Season</p>	<p>Flowers in spring, fruit ripens in late summer to fall</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="863 894 1969 976"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>May through September</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Young plants can be pulled by hand, cutting can be done at any time of the year, best to do when leaves are still present. Remove twining vines from trees at any time during the year.</p>																								
<p>Herbicide Guideline</p>	<p>Foliar spray to wet with a systemic herbicide (2-4% Glyphosate). Take care not to spray non-target plants.</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Mile-A-Minute, Tear Thumb (*Persicaria perfoliata*)

<p>Plant Description</p>  <p style="text-align: right; font-size: small;">UGA5273091</p>	<p>Plant: Annual, trailing vine; stems are delicate and armed with barbs that face downwards; distinctive circular, cup-shaped leafy structures called ocrea surround the stem at nodes. Dies back in winter.</p> <p>Leaves: alternate, pale green, and triangular. Barbs on the underside of the leaves.</p> <p>Flowers, fruit and seeds: flower buds and fruits emerge from within the ocrea; flowers are small and white; fruits are berrylike, deep blue, and arranged in clusters at a shoots end.</p> <p>Spread: by seed, dispersed by birds and by water.</p>																								
<p>Growing Season</p>	<p>Flowers in springtime though summer, seeds viable when green</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="844 922 1921 1003"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td></td> <td></td> </tr> </tbody> </table> <p>May through October</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Pull out by hand making sure to remove roots with the plant, take care to wear gloves and long sleeves to avoid injury by barbs.</p>																								
<p>Biological Control</p>	<p>A small insect, Mile-A-Minute weevil, is present in the area and working as a natural control of the plant</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Winter Creeper (*Euonymus fortunei*)

<p>Plant Description</p> 	<p>Plant: Evergreen woody vine or sprawling shrub with stems that are green when young, becoming light gray and corky with age.</p> <p>Leaves: opposite, glossy, dark green, oval, slightly toothed, with light-colored veins, about 1-2.5 in. long.</p> <p>Flowers, fruit and seeds: Flowers are small and greenish with five petals on long stalks; fruits are small round pinkish-red capsules that split open to expose seeds with red-orange covering.</p> <p>Spread: seeds dispersed by birds and another small animals; by growth at tip of stems</p>																								
<p>Growing Season</p>	<p>Vigorous growth spring through fall</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="844 846 1948 927"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td style="background-color: #c8e6c9;"></td> </tr> </tbody> </table> <p>October through February, evergreen vine can be removed by hand in Winter. In Spring and Summer, mow back.</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Hand pull plants, use a spading fork to loosen the roots when soil is moist</p>																								
<p>Herbicide Guideline</p>	<p>Mow down and spray systemic herbicide to cut areas. A foliar spray can be applied for large monoculture infestations, taking care to avoid any non-target vegetation.</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Sweet Autumn Virginsbower (*Clematis terniflora*)

<p>Plant Description</p> 	<p>Plant: climbing perennial vine. Drops at least some leaves in winter.</p> <p>Leaves: opposite, compound 3 leaflets; leaflets are 2-3in long and have entire margins.</p> <p>Flowers, fruit and seeds: flowers are white with four petals; many showy seeds with long, silvery-gray, feather-like hairs attached.</p> <p>Spread: wind-dispersed seed.</p>																								
<p>Growing Season</p>	<p>Flowers late summer through fall; seeds persist into winter</p>																								
<p>Best Removal Time</p>	<table border="1" data-bbox="846 878 1948 959"> <thead> <tr> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>Aug</th> <th>Sept</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td style="background-color: #c8e6c9;"></td> <td></td> </tr> </tbody> </table> <p>Late summer through fall as it is easy to identify when in flower</p>	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec												
Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec														
<p>Hand Removal Guideline</p>	<p>Cut back to the ground while vine is in flower, monitor in the upcoming years and continuously cut back. While soil is moist, loosen roots with spading fork or weed wrench.</p>																								
<p>Herbicide Guideline</p>	<p>Cut vine back to ground, paint on a systemic herbicide to the cut area.</p>																								
<p>Alternatives to plant</p>	<p>Spice bush (<i>Lindera benzoin</i>), American beautyberry (<i>Callicarpa americana</i>), azalea (<i>Rhododendron</i> spp.)</p>																								

Periwinkle (*Vinca minor*)

Plant Description



Plant: vine-like erect or trailing groundcover; mostly evergreen; stems slender.

Leaves: opposite, dark green, glossy, oval to lance shaped, thick-textured; may include white.

Flowers, fruit and seeds: flower blue, lavender, or white, about 1 in. across, five petals arranged in spiral; no fruit or seeds typically.

Spread: Expands by growth from stem tips and through stems that emerge from specialized roots.

Growing Season

Flowers in springtime though summer

Best Removal Time

Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec

June through November as it is easy to identify in flower

Hand Removal Guideline

Pull out by hand, dig up or rake up, being sure to remove underground portions. Can be mowed, needs repeated treatment to be effective.

Herbicide Guideline

Mow down and spray systemic herbicide to cut areas. A foliar spray can be applied for large monoculture infestations, taking care to not hit any non-target vegetation.

Alternatives to plant

Partridgeberry (*Mitchella repens*), wild ginger (*Asarum canadense*), creeping blueberry (*Vaccinium crassifolium*)

Glossary

Deciduous: leaves fall away in the fall.

Evergreen: leaves persist through the autumn and winter, year-round foliage.

Foliar: relating to; or applied to leaves

Herbaceous: a plant having little to no woody growth

Annual: a plant that completes its lifecycle in one year: flowers, fruits/ produces seeds, dies.

Biennial: a plant with a life cycle of 2 years.

Perennial: a plant with a life cycle that recurs over several years.

Monoculture: the growth of a single plant species in an area

Bulblet: A small bulblike structure produced in the place of a flower or in a leaf axil, and having the ability to develop into a new plant.