Invasive Species Calendar of Control

Always Refer to Herbicide Label for Proper Use, Rates, Application, Timing, etc.

February 12, 2020

This calendar contains guidance on when and how to control common invasive plants in Monroe County with herbicide. The key to the treatment colors is at the bottom of the page, with shrubs and vines on this side of the page and forbs, grasses, and trees on the other side. The recommended dilutions are based on full strength herbicides; the % active ingredients in each full strength herbicide is shown at the bottom of the next page. For more information on control of specific invasive plants in Monroe County, see MC-IRIS.org.

USE PESTICIDES WISELY: The percentages listed are percent volume solutions using full strength products, not active ingredients. Always read the entire pesticide label carefully, follow all mixing and application instructions and wear all recommended personal protective gear and clothing. Contact the Office of the Indiana State Chemist (https://www.oisc.purdue.edu/) for any additional pesticide use requirements, restrictions or recommendations.

Hand pulling and other non-chemical control methods are effective for some annual and biennial species. Hand pulling should be done when the soil is moist and care should be taken to remove all of the root system; this can result in significant soil disturbance which can provide more opportunities for invasive plants to establish. Mowing is an option for some species but must be timed to limit seed production and repeated follow-up mowing will typically be necessary.

Shrubs:	INVASIVE SPECIES	GENERAL TREATMENT	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	Autumn olive Asian bush honeysuckles Japanese barberry Multiflora rose Privet Winged burning bush	These six shrub species have similar control methods, rate of herbicide and timing of application.		Foliar Spray										
					Cut Surface Treatment is very effective									
								Basal Bark Treatment is very effective, but can be difficult on multiple stemmed shrubs.						
Vines:	**INVASIVE SPECIES**		**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**
Evergreen	Periwinkle English ivy Wintercreeper	These three species have very waxy leaves. A higher percentage of surfactant is important.							Treatment after first frost through the dormant season is very effective when temperature is above 50 degrees F.					
	Japanese honeysuckle	Evergreen, but less waxy leaf.							Foliar Spray					
Deciduous	Wisteria	The invasive Wisteria, flowers earlier in the spring and has larger, hairy seedpods.					Cut Surface Treatment on larger vines							
					Foliar Spray									
	Autumn clematis	Easy to kill if treated.			Anytime during growing season.									
	Oriental bittersweet	Ensure not treating native bittersweet.					Cut surface treatment on larger vines							
					Anytime during growing season.									
	Kudzu	Treat this species when the plant is flowering. Contact IDNR if you have this species. (Ken Cote)					Cut surface treatment on larger vines							
							Foliar Spray							

Color Key and Herbicide Treatment Recommendations

Foliar spray with 3% Glyphosate and 1/2% non-ionic surfactant.	**Foliar spray with 1% Glyphosate and 1/4% non-ionic surfactant**
Basal bark treatment with 20-30% Triclopyr Ester and 70-80% horticultural oil or basal oil.	**Foliar spray with 1% Imazapyr, 1/2% Glyphosate and 1/2% non-ionic surfactant**
Cut surface treatment with 50% Glyphosate and 50% water.	**Foliar Spray with 3% Glyphosate approved for aquatic areas and 1/2% surfactant.**
Foliar spray with 1/2% grass specific herbicide such as Sethoxydim or Clethodim with 1/4% surfactant.	**Foliar spray with 3% Glyphosate and 1/2% non-ionic surfactant.**
Foliar Spray with 3% Triclopyr Amine and 1/2% non-ionic surfactant, due to waxy leaf.	**Foliar spray with 1% Clopyralid and 1/2% non-ionic surfactant**

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Forbs:	INVASIVE SPECIES		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	Canada thistle	Noxious weed, treatment required.	Foliar Spray											Foliar Spray
	Chinese lespedeza	Timing is very important for good control.					Foliar Spray							
	Crown vetch	Okay to treat during growing season.	Foliar Spray					Foliar Spray						
	Dame's rocket	Treat basal rosettes in fall.							Foliar Spray					
	Garlic mustard	Treat basal rosettes in fall and late winter.	Foliar Spray										Foliar Spray	
	Japanese knotweed	Very difficult to control in riparian areas.				Foliar Spray								
	Purple loosestrife	Noxious weed, treatment required.				Foliar Spray Aquatic								

Grasses:	INVASIVE SPECIES		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	Japanese stiltgrass	Very aggressive. Treat as soon as discovered.			Grass specific herbicide Foliar Spray 1% Glyphosate plus 1/4% non-ionic Surfactant									
	Maiden grass or Miscanthus	Ornamental grass that will seed into natural areas.	Cut clumps back to 6 inches to treat				Cut clumps back to 6 inches to treat							
	Phragmites	Be sure it is not the native Phragmites before controlling					Treat after full bloom up to killing frost							
	Reed canary grass	Cool-season grass; will green up early in spring and stay green later in fall.		Treat in the spring before flowering				Mid Sept until consistent frosts						

Trees:	INVASIVE SPECIES		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	Callery pear	Will resprout from stump.			Foliar spray on small trees only									
	Princess tree	Will resprout from stump.			Basal Bark Treatment Helps Reduce Sprouting. Do not treat when snow is on the ground									
	White mulberry	Will resprout from stump.			Cut Surface Treatment - Only treat 1" ring around stump on large trees									
	Tree-of-heaven	Root sprouts prolifically. Do not cut if possible.			Foliar spray on small trees only									
					Basal Bark Treatment Helps Reduce Sprouting. Do not treat when snow is on the ground									

Color Key and Herbicide Treatment Recommendations

Foliar spray with 3% Glyphosate and 1/4% non-ionic surfactant.	Foliar spray with 1% Glyphosate and 1/4% non-ionic surfactant
Basal bark treatment with 20-30% Triclopyr Ester and 70-80% horticultural oil or basal oil.	Foliar spray with 1% Imazapyr, 1/2% Glyphosate and 1/4% non-ionic surfactant
Cut surface treatment with 50% Glyphosate and 50% water.	Foliar Spray with 3% Glyphosate approved for aquatic areas and 1/2% surfactant.
Foliar spray with 1/2% grass specific herbicide such as Sethoxydim or Clethodim with 1/4% surfactant.	Foliar spray with 3% Glyphosate and 1/2% non-ionic surfactant.
Foliar Spray with 3% Triclopyr Amine and 1/2% non-ionic surfactant, due to waxy leaf.	Foliar spray with 1% Clopyralid and 1/2% non-ionic surfactant

Commonly Sold Herbicide Brand Names (full strength % active ingredient in parentheses)

Non-Selective Herbicides (impact all plant species):	Selective Herbicides (impact only some plant species):
Glyphosate (41-54%) = Round-up , Glypro Plus, Glystar Plus, Ranger Pro, Razor Pro, Rodeo (aquatic label), Aquaneat (aquatic label), Cattplex (aquatic label)	Triclopyr Ester (60%)= Garlon 4, Remedy Ultra, Element 4, Triclopyr 4 (broadleaf specific)
Imazapyr (50%) = Arsenal, Polaris, Stalker, Imazapyr 4 SL, Habitat (aquatic label)	Triclopyr Amine (44%) = Garlon 3A, Element 3A, Renovate 3, Vastlan (all aquatic label, broadleaf specific)
	Sethoxydim (18%) = Poast (grass specific)
	Clopyralid (40%) = Transline, Stinger, Clopyralid 3 (specific to mostly composites and legumes)

Commonly Sold Adjuvants (additives that increase effectiveness of herbicides):

Non-ionic Surfactant = Invade 90, NuFilm IR, RRSI NIS, Surf-Ac, Cide-Kick II (aquatic safe), Plex Mate (aquatic safe)

Basal Oil = Ax-it, Drexel MES-100 (methylated seed oil)

Water-soluble Dye = Alligare Super Marking Dye, RRSI IVM Marking Dye Oil-soluble Dye = Bas-Oil Red Dye

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