Non-Native Invasive Plant Species Control Treatments

Timing, Methods and Herbicide Rates

This is a list of management tactics for major invasive plants, not a comprehensive control plan. For recommendations specific to your property, consult a professional forester or land resource manager. Follow all label prohibitions, precautions and safety requirements during herbicide transport, storage, mixing and application.

INVASIVE PLANT		CONTROL TIMING	CONTROL METHOD	HERBICIDE RATES *	NOTES
GRASSES	Japanese Stiltgrass	Prior to seed maturity	Manual – hand pull		Remove all roots
		Prior to seed maturity	Mechanical – mow/cut repeatedly		To reduce seed formation
		Late spring – late summer	Foliar spray	Sethoxydim 1.5% or Glyphosate 0.5%-2%	Several years needed to control seed bank
	Wavyleaf Grass	Prior to seed maturity	Manual – pull small areas		Follow-up treatment required
		Late May – early June, again in late June – early July	Foliar spray	Glyphosate 2%, Clethodim 1%	Several years (as needed); avoid plants that have set seed
HERBS/FORBS	Garlic Mustard	Late spring – early summer, prior to any seedpods maturing to brown	Manual – hand pull and remove taproot		Do not leave flowering plants on ground, seeds will form; bag/ remove flowering plants
		March – June, before seedpods	Mechanical – mow or cut		To reduce seed formation
		Late fall – winter is best, but susceptible any time	Foliar spray on evergreen leaves	Glyphosate or Triclopyr 2%	Dormant season timing protects many other species
VINES	Gen. Recommendations for All Vines	All year when soil is moist	Manual – hand pull small vines		Remove as many roots as possible to prevent resprouts
		Any	Manual or mechanical – cut to “treatable” height		Follow-up with foliar herbicide applied to resprouts
		June – October, through winter for evergreen species	Foliar spray	Glyphosate 2%-3% or Triclopyr 2%-5%	Several years (as needed)
		June – February	Basal spray	Triclopyr ester 20%-25%	Follow-up usually required
		June – August	Foliar spray	Metsulfuron 2-4 oz./acre	Several years (as needed)
		June – February, late summer – fall ideal	Cut stump	Glyphosate or Triclopyr ester 20%-25%	Follow-up usually required; highly selective and uses minimal herbicide
	Japanese Honeysuckle	Before seed formation	Foliar spray	Glyphosate 2%-3% or Triclopyr 2%-5%	Treat evergreen leaves on warm days in winter

* Rates are listed as common herbicide formulations. Application rates may vary with specific products so always follow label instructions.

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	INVASIVE PLANT	CONTROL TIMING	CONTROL METHOD	HERBICIDE RATES *	NOTES
VINES, continued	Porcelain-berry	June to October, late summer – early fall ideal	Foliar spray	Triclopyr 2%-3%	Manual ineffective due to extensive root system
	Oriental Bittersweet	All year, late summer – fall ideal	Injection or hack-n-squirt	Triclopyr amine or Glyphosate undiluted	Vines more than 1 inch in diameter
	Mile-a-Minute	May – October	Manual/mechanical – hand pull, mow or cut repeatedly		Protect skin from thorns
		May – July	Foliar spray	Glyphosate 1% or Triclopyr 1%-2%	Likely to injure other plants
	Kudzu	All year	Manually remove all root crowns		
		All year	Mechanical – mow and cover with plastic sheeting		Leave sheeting in place two years
		July – September	Mechanical – cut or mow to ground		Many, many years needed
		June – October	Foliar spray	Picloram 3%	*Restricted use pesticide
		July – September	Foliar spray	Metsulfuron 3-4 oz./acre, Triclopyr 4%, Clopyralid 1.3 pt./acre, Aminopyralid 7 oz./acre	Repeat in successive years
		June – February	Basal spray	Triclopyr ester 20%	Woody stems
		June – February	Injection or hack-n-squirt	Imazapyr, Triclopyr amine or Glyphosate undiluted	Vines more than 1 inch in diameter
SHRUBS	Gen. Recommendations for All Shrubs	When soil is moist	Manual – hand pull small plants		Roots left in ground resprout
		When fruit is not present	Mechanical – cut or mow		Follow-up treatment required
		June – February	Foliar spray	Imazapyr 1% or Triclopyr 2%	Several years (as needed)
		June – February	Cut stump	Imazapyr 5%-10% or Glyphosate 20%	Selective, minimal herbicide
		June – February	Basal spray	Triclopyr ester 20%	
	Multiflora Rose	See General Recommendations for all shrubs			
		June – October	Foliar spray	Glyphosate 2%-4% or Triclopyr 1%	
	Autumn Olive	See General Recommendations for All Shrubs			
	Chinese Privet	See General Recommendations for All Shrubs			
TREES	Gen. Recommendations for All Trees	June-February	Injection or hack-n-squirt	Triclopyr or Imazapyr undiluted	Small to large trees
		July – February	Basal spray	Triclopyr ester 20%-25%	Saplings
	Tree-of-Heaven	See General Recommendations for All Trees			Follow-up usually required
		Summer – fall	Foliar spray	Triclopyr 2%	Seedlings, saplings, resprouts

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