

Treatment Methods:

Category	Method	Method Description	Considerations
MANUAL		Manual treatment can be highly effective for small plants and infestations of Autumn and Russian olive. Larger plants have robust root systems and may be harder to remove manually.	
	Hand Pulling	<ul style="list-style-type: none"> • Pull entire plant by the base of the stem • Be sure to remove entire root system • If feasible and fruit is present, bag and dispose of fruits to prevent seed dispersal • Dry or burn all vegetation (most importantly roots) by hanging upside down on surrounding vegetation or piling into a brush pile and burning 	<ul style="list-style-type: none"> • Effective on small-medium sized plants and small infestations • Most effective if done when soil is wet • Remaining portions of roots system not removed can re-sprout • Take caution when pulling as some plants have thorns • Avoid dragging or piling pulled plants into an area that is currently uninfested
	Weed Wrenching	<ul style="list-style-type: none"> • Remove plant by the base of the stem • Be sure to remove entire root system • If feasible and fruit is present, bag and dispose of fruits to prevent seed dispersal • Dry or burn all vegetation (most importantly roots) by hanging upside down on surrounding vegetation or piling into a brush pile and burning 	<ul style="list-style-type: none"> • Can be more helpful than pulling larger plants
	Mowing/Cutting	<ul style="list-style-type: none"> • Use lopper, pruning shears, weed whacker/brush saw or mower to cut the stem as close to the ground as possible • Cut at least 1 times during growing season (mid May-October) • Repeat for 3-5 years 	<ul style="list-style-type: none"> • Cutting/mowing can help slow the spread of Autumn olive • Cutting/mowing will encourage re-sprouting and may need to be conducted for 3-5 years to fully exhaust root system and kill plant • Most effective if followed with foliar herbicide application
	Grazing	<ul style="list-style-type: none"> • Use lopper, pruning shears, weed whacker/brush saw or mower to cut the stem as close to the ground as possible early in the growing season • Allow grazing animals to eat sprouts 	<ul style="list-style-type: none"> • A detailed grazing plan should be developed before employing this method • If native plants are present, grazing animals might preferentially graze them • Not all grazing animals will eat invasive plants. Goats have been known to graze Autumn olive

CHEMICAL	Active ingredients commonly used in herbicides: glyphosate or triclopyr		
	Foliar Application	<p><i>If foliar spraying only:</i></p> <ul style="list-style-type: none"> • Foliar spray when plant is fully leafed out (May-October) • Spray leaf surfaces with low volume backpack sprayer, or high volume mist blower <p><i>If cutting and foliar spraying:</i></p> <ul style="list-style-type: none"> • Use lopper, pruning shears, weed whacker/brush saw or mower to cut the stem as close to the ground as possible • Cut during early growing season (April and May) • Spray sprouts with a low volume backpack sprayer during late growing season (September and October) 	<p><i>Low Volume Backpack Sprayer</i></p> <ul style="list-style-type: none"> • Herbicides (active ingredient): glyphosate or triclopyr with surfactant • Used to target barberry plants and minimize drift to desirable species
		<p><i>Low Volume Motorized Mist Blower</i></p> <ul style="list-style-type: none"> • Herbicides (active ingredient): glyphosate or triclopyr with surfactant • Used for very larger and dense infestations that have little desirable, native vegetation that will be damaged by drift 	
	Cut Stump	<ul style="list-style-type: none"> • Cut stems 2-4" above the ground in late summer to early fall • Apply herbicide immediately after cutting the exposed surface using a sponge, brush, hand-held squirt bottle or directly pouring • Apply herbicide to at least the outer 20% of the surface • Monitor and do follow up treatment as the following year and as necessary 	<ul style="list-style-type: none"> • Herbicides (active ingredient): glyphosate or triclopyr mixed with surfactant
	Basal Bark	<ul style="list-style-type: none"> • Use a low pressure, low volume backpack sprayer • Apply herbicide around the entire circumference of the lower 8-18" of individual stems of the plant and include the root collar • Larger stems require the larger (18") treated area • Do not spray to the point of runoff 	<ul style="list-style-type: none"> • Herbicides (active ingredient): triclopyr in an oil or oil-water mixture • Recommended for scattered or light infestations of large plants • Used to target Autumn olive plants and minimize drift to desirable species • Only use this treatment method when stem and root collar are exposed
Cut Surface	<ul style="list-style-type: none"> • Cut stems 2-4" above the ground • Apply herbicide up to one month following cutting using a sprayer, hand-held squirt bottle or directly pouring • Apply herbicide around the entire circumference of the cut surface until wet • Do not apply herbicide until the point of runoff 	<ul style="list-style-type: none"> • Herbicides (active ingredient): triclopyr in an oil or oil-water mixture • Recommended for scattered or light infestations of large plants • Used to target Autumn olive plants and minimize drift to desirable species 	

