

Treatment Recommendations for Invasive Weed Species

***Compiled by Toby Obenauer, National Park Service
Team Leader, Southeast Invasive Plant Management Team***

All recommended foliar formulations should contain a surfactant for maximum efficacy. Add at 1% or as the label specifies.

Agricultural oils are typically mineral oils or non- food grade vegetable oils. These are intended for agricultural use and plant application.

Milestone, Transline, Plateau, Chopper Gen 2, Arsenal and Habitat are soil active herbicides and can increase the rate of off target damage. Use caution when applying.

*Milestone, when added to cut stump formulations with Garlon 3A or Garlon 4, is added at a rate of 3 ounces per 2.5 gallons. Not to exceed 7 ounces per acre.

** Milestone, when added to foliar formulations, is added at 1 ounce per 4 gallons. Not to exceed 7 ounces per acre.

*** Milestone, when added to basal formulations, is added at a rate of 2 ounces per 2.5 gallons. Not to exceed 7 ounces per acre.

Generic herbicides can be substituted when the percent of active ingredient is the same as the name brand herbicides referred. Ex. Aquaneat (generic) can be used in place of Accord/ Rodeo as they both contain 41% Glyphosate A/I.

A general rule of thumb for basal treatments is to apply the chemical formula at twice the base diameter. Ex. A privet three inches in diameter at the base would get a 6 inch band of herbicide.

All recommendations are based on field trials conducted by the SEIPMT.

Ailanthus: (Tree-of-Heaven):

Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A with Milestone*

or

2. Cover the entire fresh cut stump with 25% Garlon 4 and Milestone* with Agricultural Oil.

or

3. Cut tree as low to the ground as possible and apply 50% Accord/ Rodeo

Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO) with Milestone**. Cover most of the plant including the stem.

or

2. Apply 3% Garlon 3A with 1 tsp. of Milestone per 3 Gallons

or

3. Apply 3% Accord/ Rodeo with 1% Arsenal.

Basal: Apply 25% Garlon 4 with Agricultural Oil and Milestone*** around the entire base. Increase the width of the band according to the size of the tree.

Air Potato:

Cut Stump: Cut vine as low to the ground as possible and apply 50% Garlon 3A.

Foliar: Apply 5% Garlon 3A

Manual: Fruits should be collected prior to treatment. Place them in a plastic bag and dispose of properly.

Asiatic Dayflower:

Manual: Hand pull plants and shake excess dirt off. Place in black plastic bag and dispose of properly.

Foliar: Apply 3% Garlon 3A

Autumn/ Thorny Olive:

Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A with Milestone*

or

2. Cover the entire fresh cut stump with 25% Garlon 4 and Milestone* with Agricultural Oil.

or

3. Cut tree as low to the ground as possible and apply 50% Accord/ Rodeo

Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO) with Milestone**. Cover most of the plant including the stem.

or

2. Apply 3% Garlon 3A with 1 tsp. of Milestone per 3 Gallons

Basal: Apply 25% Garlon 4 with Agricultural Oil and Milestone*** around the entire base. Increase the width of the band according to the size of the tree.

Bamboo:

Cut Stump: Cut plant as low as possible but between the stem sections and fill with 15% Rodeo/ Accord with 1% Arsenal or Habitat added.

Foliar: Apply 3% Accord/ Rodeo

1% Plateau, Arsenal or Habitat may be added for increased efficacy.

Beefsteak:

Manual: Hand pull plant and shake off excess dirt. Bag and dispose or leave on site but do not let the roots touch soil.

Foliar: 1. Apply 3% Accord/ Rodeo

or

2. 3% Garlon 3A

Bradford Pear:

Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A

or

2. Cover the entire fresh cut stump with 25% Garlon 4 and Milestone* with Agricultural Oil.

or

3. Cut tree as low to the ground as possible and apply 50% Accord/ Rodeo

Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.

or

2. Apply 3% Garlon 3A (Mid-summer to fall only)

or

3. Apply 3% Accord/ Rodeo (Mid-summer to fall only)

Basal: Apply 25% Garlon 4 with Agricultural Oil around the entire base. Increase the width of the band according to the size of the tree.

Bush Honeysuckle:

Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Accord/ Rodeo

or

2. Cut tree as low to the ground as possible and apply 25% Garlon 3A

Foliar: 1. Apply 3% Accord/ Rodeo

Or

2. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.

Butterfly Bush

- Cut Stump: 1. Cut tree as low to the ground as possible and apply 25% Garlon 3A
- Or
2. Cut tree as low to the ground as possible and apply 50% Accord/ Rodeo
- or
3. Cover the entire fresh cut stump with 25% Garlon 4 with Agricultural Oil.
- Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.
- or
2. Apply 3% Accord/ Rodeo (Mid-summer to fall only)
- Basal: Apply 25% Garlon 4 with Agricultural Oil around the entire base. Increase the width of the band according to the size of the tree.

Chinaberry Tree:

- Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A
- or
2. Cover the entire fresh cut stump with 25% Garlon 4 and with Agricultural Oil.
- Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.
- or
2. Apply 3% Garlon 3A
- or
3. Apply 3% Accord/ Rodeo (Mid-summer to fall only)
- Basal: Apply 25% Garlon 4 with Agricultural Oil around the entire base. Increase the width of the band according to the size of the tree.

Chinese Privet:

- Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A
- or
2. Cover the entire fresh cut stump with 25% Garlon 4 and with Agricultural Oil.
- or
3. Cut tree as low to the ground as possible and apply 50% Accord/ Rodeo
- Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.
- or
2. Apply 3% Accord/ Rodeo (Mid-summer to fall only)
- Basal: Apply 25% Garlon 4 with Agricultural Oil around the entire base. Increase the width of the band according to the size of the tree.

Congocrass:

- Foliar: 1: Apply a solution of 3% Accord/ Rodeo with 1% Arsenal/ Chopper Gen2/ Habitat to the plant.
- or
2. Apply a solution of 3% Accord/ Rodeo with 1% Plateau

Coltsfoot:

- Foliar: Apply 3% Accord/ Rodeo

Coral Ardisia:

- Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A
or
2. Cover the entire fresh cut stump with 25% Garlon 4 and with Agricultural Oil.
- Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.
or
2. Apply 3% Accord/ Rodeo (Mid-summer to fall only)
- Basal: Apply 25% Garlon 4 with Agricultural Oil around the entire base. Increase width of the band according to the size of the tree.

Crepe Myrtle:

- Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A
or
2. Cover the entire fresh cut stump with 25% Garlon 4 and with Agricultural Oil.
- Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.
or
2. Apply 3% Accord/ Rodeo (Mid-summer to fall only)
- Basal: Apply 25% Garlon 4 with Agricultural Oil around the entire base. Increase width of the band according to the size of the tree

Crownvetch:

- Foliar: Apply 2% Garlon 3A with 1 tsp. per 3 gallons of Milestone
or
Apply 3% Garlon 3A.

English Ivy:

- Foliar: 1. Apply 4% Garlon 4 with 4% MSO
- or
2. Apply 6% Garlon 3A with 2% non-ionic surfactant.
- Cut Stump: Cut a segment of vines growing up trees and apply 50% Garlon 3A. Insure at least a one inch segment is removed.

Fescue:

- Foliar: 1. Apply a solution of 2% Accord/ Rodeo with 1% Arsenal/ Chopper Gen2.
- or
2. Apply a 2% solution of Accord/ Rodeo with ½% Plateau.
- Or
3. Apply 3% Accord/ Rodeo

It is beneficial to cut the grass down and treat when new grow is established prior to development of the cuticle.

Garlic Mustard:

- Foliar: 1. Apply 3% Accord/ Rodeo
- or
2. Apply 3% Garlon 3A

Hostas:

- Foliar: 1. Apply 3% Accord/ Rodeo
- or
2. Apply 3% Garlon 3A

Japanese Barberry:

- Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A
or
2. Cover the entire fresh cut stump with 25% Garlon 4 and with Agricultural Oil.
- Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.
or
2. Apply 3% Accord/ Rodeo (Mid-summer to fall only)
- Basal: Apply 25% Garlon 4 with Agricultural Oil around the entire base. Increase width of the band according to the size of the shrub size.

Japanese Honeysuckle:

- Cut Stump: 1. Cut vines as low to the ground as possible and apply 25% Garlon 3A
or
2. Cut vines as low to the ground as possible and apply 25% Accord/ Rodeo.
- Foliar: 1. Apply 3% Accord/ Rodeo
Or
2. Apply 3% Garlon 3A
- Manual: Plants are easily uprooted. Several runners tend to be spread out from the main root and should be pulled up as well.

Japanese Knotweed:

- Cut Stump: Cut plant as low to the ground as possible and between the segmented chambers. Fill the hollow chamber with 25% Garlon 3A. Dispose of remaining knotweed on dry ground or haul to a waste facility.
- Foliar: 1. Apply 3% Garlon 3A to the entire plant.
Or
2. Apply 4% Garlon 4 with 4% MSO if not near water.

Japanese Privet:

- Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A
- or
2. Cover the entire fresh cut stump with 25% Garlon 4 and with Agricultural Oil.
- or
3. Cut tree as low to the ground as possible and apply 50% Accord/ Rodeo
- Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.
- or
2. Apply 3% Accord/ Rodeo (Mid-summer to fall only)
- Basal: Apply 25% Garlon 4 with Agricultural Oil around the entire base. Increase the width of the band according to the size of the tree.

Japanese Spiraea:

- Cut Stump: 1. Cut tree as low to the ground as possible and apply 25% Garlon 3A
- or
2. Cover the entire fresh cut stump with 25% Garlon 4 and with Agricultural Oil.
- or
3. Cut the plant as low to the ground as possible and apply 50% Accord/ Rodeo
- Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.
- or
2. Apply 3% Accord/ Rodeo (Mid-summer to fall only)
- Basal: Apply 20% Garlon 4 with Agricultural Oil around the entire base. Increase the width of the band according to the size of the tree.

Johnsongrass:

- Foliar: 1. Apply a solution of 2% Accord/ Rodeo with 1% Arsenal/ Chopper Gen2.
- or
2. Apply a 2% solution of Accord/ Rodeo with ½% Plateau.
- or
3. Apply 3% Accord/ Rodeo

It is beneficial to cut the grass down and treat when new grow is established prior to development of the cuticle.

Kudzu:

- Cut stump: 1. Cut all vines at the point of ground contact and quickly apply a solution 50% Garlon 3A with 2% Transline. Cut severed vines at 5 to 6 feet above ground. This prevents resprouting vines from growing up the dead vines and allows for faster foliar treatment.
2. Cut all vines at the point of ground contact and quickly apply a solution 50% Garlon 3A with Milestone*. Cut severed vines at 5 to 6 feet above ground. This prevents resprouting vines from growing up the dead vines and allows for faster foliar treatment.
- Basal: Vines that “railroad” along the ground may be basal treated with 25% Garlon 4 with Milestone*** and an agricultural oil. Brush back any leaf litter and spray the entire vine.
- Foliar: 1. Apply a solution of 3% Garlon 3A with Milestone**
- or
2. Apply a solution of 3% Garlon 3A with 1% Transline

Lespedeza:

- Foliar: 1. Apply a solution of 3% Garlon 3A with Milestone**
- or
2. Apply a solution of 3% Garlon 3A with 1% Transline

It is beneficial to cut the plant down and treat when new growth is established. Treat before seeding.

Microstegium:

Foliar: 1. Apply a solution of 2% Accord/ Rodeo with 1% Arsenal/ Chopper Gen2.

or

2. Apply a 2% solution of Accord/ Rodeo with ½% Plateau.

or

3. Apply 3% Accord/ Rodeo

Mechanical: 1. Cut grass low prior to seeding

or

2. Grass is easy to hand pull. Allow roots to dry out or bag for proper disposal

Mimosa:

Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A with (optional) Milestone* or 1% Transline

or

2. Cover the entire fresh cut stump with 25% Garlon 4 and Milestone***with Agricultural Oil.

Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO) with Milestone**. Cover most of the plant including the stem.

or

2. Apply 3% Garlon 3A with 1 tsp. of Milestone per 3 Gallons

Basal: Apply 25% Garlon 4 with Agricultural Oil and Milestone*** around the entire base. Increase the width of the band according to the size of the tree.

Miscanthus:

Foliar: 1. Apply a solution of 2% Accord/ Rodeo with 1% Arsenal/ Chopper Gen2.

or

2. Apply a 2% solution of Accord/ Rodeo with ½% Plateau.

or

3. Apply 3% Accord/ Rodeo

It is beneficial to cut the grass down and treat when new grow is established prior to development of the cuticle. Collect any seed heads present and dispose of properly.

.Mullein:

Manual: Hand pull and shake excess dirt off. Dispose of in trash bag or leave with roots up.

Foliar: 1. Apply 3% Accord/ Rodeo at high pressure to the leaves and heart of the plant. Insure herbicide makes contact with the leaf and not just the leaf hairs. Applicators may want to add extra surfactant to further reduce water surface tension.

or

2. Apply 3% Garlon 3 at high pressure to the leaves and heart of the plant. Insure herbicide makes contact with the leaf and not just the leaf hairs. Applicators may want to add extra surfactant to further reduce water surface tension.

Multiflora Rose (all Roses):

Cut Stump: 1. Cut shrub as low to the ground as possible and apply 25% Accord/
Rodeo

or

2. Cut shrub as low to the ground as possible and apply 25% Garlon 3A

or

3. Cover the entire stump with 20% Garlon 4 with Agricultural Oil.

Foliar: 1. Apply 3% Accord/Rodeo to foliage

or

2. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of
the plant including the stem.

Or

3. Apply 3% Garlon 3A to foliage

Basal: Apply 20% Garlon 4 with Agricultural Oil around the entire base. Increase
the width of the band according to the size of the plant.

Nandina:

Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A

or

2. Cover the entire stump with 20% Garlon 4 with Agricultural Oil.

Foliar: 1. Apply 3% Accord/Rodeo to foliage.

or

2. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of
the plant including the stem.

Basal: Apply 20% Garlon 4 with Agricultural Oil around the entire base. Increase
the width of the band according to the size of the shrub.

Parrotfeather (aquatic):

Foliar: 1. Apply 3% Trycera with ½% LI-700 to emergent vegetation

or

2. Apply 3% Vastland with ½% LI-700 to emergent vegetation

Submerged Vegetation: Mix 50% Trycera or Vastlan with 1/2% of LI-700. Remove sprayer tip. Place sprayer wand in water and apply herbicide. Herbicide will look like a cloud enveloping the plant. Use caution if using a canoe or boat that the paddle or motor current does not push the herbicide away from submerged vegetation.

Mechanical: Can be effective but all parts of the plant must be removed or remnant portions will re-infest in shallow water.

Oriental Bittersweet:

Cut stump: 1. Cut all vines at the point of ground contact and quickly apply 50% Garlon 3A. Cut severed vines at 5 to 6 feet above ground. This prevents resprouting vines from growing up the dead vines and makes retreatment easier with foliar.

or

2. Cut all vines at the point of ground contact and quickly apply 50% Accord/ Rodeo. Cut severed vines at 5 to 6 feet above ground. This prevents resprouting vines from growing up the dead vines and makes retreatment easier with foliar.

Foliar: 1. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.

Or

2. Apply 3% Accord/ Rodeo to the foliage

Paulownia (Princesstree):

Cut Stump: 1. Cut tree as low to the ground as possible and apply 50% Garlon 3A
or

2. Cover the entire stump with 25% Garlon 4 with Agricultural Oil and Milestone***.

Foliar: Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.

Basal: Apply 25% Garlon 4 with Agricultural Oil with Milestone*** around the entire base. Increase the width of the band according to the size of the tree. Spray any roots that may be exposed above soil.

Rose of Sharon:

Cut Stump: 1. Cut tree as low to the ground as possible and apply 25% Garlon 3A
or

2. Cut tree as low to the ground as possible and apply 25% Accord/
Rodeo

or

3. Cover the entire stump with 20% Garlon 4 with Agricultural Oil.

Foliar: 1. Apply 3% Accord/Rodeo to the foliage.

or

2. Apply 3% Garlon 3A to foliage.

or

3. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of the plant including the stem.

Basal: Apply 20% Garlon 4 with Agricultural Oil around the entire base. Increase the width of the band according to the size of the tree.

Thistles:

- Foliar: 1. Mix 1 oz. of Milestone per three gallons and apply.
- or
2. Apply 3% Garlon 3A

Trifoliate Orange:

- Cut Stump: Cut the shrub as low to the ground as possible and apply 25% Garlon 4 with agricultural oil to the entire cut stem.
- Foliar: Apply 4% Garlon 4 with 4% MSO to the entire plant.
- Basal: Apply 20% Garlon 4 with Agricultural Oil around the entire base. Increase the width of the band according to the size of the tree.

Vinca:

- Foliar: 1. Apply 4% Garlon 4 with 4% MSO
- or
2. Apply 6% Garlon 3A with 2% non-ionic surfactant.

Wine berry:

Cut Stump: 1. Cut shrub as low to the ground as possible and apply 25% Accord/
Rodeo

or

2. Cut shrub as low to the ground as possible and apply 25% Garlon 3A

or

2. Cover the entire cut stump with 20% Garlon 4 with Agricultural Oil.

Foliar: 1. Apply 3% Accord/Rodeo to foliage

or

2. Apply 3% Garlon 3A

or

3. Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of
the plant including the stem.

Basal: Apply 20% Garlon 4 with Agricultural Oil around the entire base. Increase
the width of the band according to the size of the tree.

Winged Euonymous:

Cut Stump: 1. Cut shrub as low to the ground as possible and apply or 50% Garlon 3A

or

2. Cover the entire stump with 20% Garlon 4 with Agricultural Oil.

Foliar: Apply 4% Garlon 4 and 4% Methylated Seed Oil (MSO). Cover most of
the plant including the stem.

Basal: Apply 20% Garlon 4 with Agricultural Oil around the entire base. Increase
the width of the band according to the size of the tree.

Winter Creeper:

- Foliar: 1. Apply 4% Garlon 4 with 4% MSO
- or
2. Apply 6% Garlon 3A with 2% non-ionic surfactant.

Cut Stump: Cut a segment of vines growing up trees and apply 50% Garlon 3A. Insure at least a one inch segment is removed.

Wisteria:

Cut stump: 1. Cut all vines at the point of ground contact and quickly apply a solution 50% Garlon 3A with 2% Transline. Cut severed vines at 5 to 6 feet above ground. This prevents resprouting vines from growing up the dead vines and allows for faster foliar treatment.

 or

 2. Cut all vines at the point of ground contact and quickly apply a solution 50% Garlon 3A with Milestone*. Cut severed vines at 5 to 6 feet above ground. This prevents resprouting vines from growing up the dead vines and allows for faster foliar treatment.

Basal: Vines that "railroad" along the ground may be basal treated with 25% Garlon 4 with Milestone*** and an agricultural oil. Brush back any leaf litter and spray the entire vine.

Foliar: 1. Apply a solution of 3% Garlon 3A with Milestone**

 or

 2. Apply a solution of 3% Garlon 3A with 1% Transline