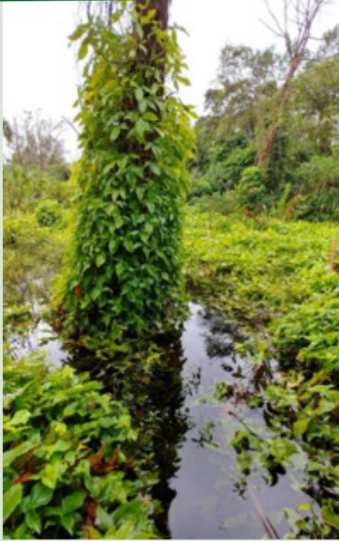


Arrowhead vine (*Syngonium podophyllum*)

ARACEAE FAMILY



GROWTH HABIT

Arrowhead vine (*Syngonium podophyllum*) is a climbing vine with large waxy compound leaves, thick stems and numerous dotted aerial roots. Also forms dense ground cover. **Flowering** is limited. Two types of **leaves** occur including juvenile arrow shaped leaves and compound adult forms. **Flowers** are a spadix. **Fruits** are a small one to two seeded berry.

DISTRIBUTION IN FLORIDA

Found throughout the southern and central peninsula but occurs as far north as Leon County in the panhandle. This species is like to become problematic throughout many urban forest areas of north Florida where an urban heat island effect may facilitate overwintering.

Table 1. Herbicide options for Arrowhead vine.
 Herbicides are expressed on a (% v/v) by product basis.
 The label is the law. Always refer to product label before use.

HERBICIDE ACTIVE INGREDIENTS	PRODUCT(S)	FOLIAR	CUT STEM AND REVERSE CUT STEM
TRICLOPYR ESTER	GARLON 4 ULTRA, ELEMENT 4 AND OTHERS	2%	NR
TRICLOPYR ACID	TRYCERA	2-3%	NR
GLYPHOSATE	ROUNDUP CUSTOM, RANGER PRO AND OTHERS	5%	50%
METSULFURON	ESCORT, MSM60	2 oz/A	NR

NR= Not Recommended

NOTES SECTION

Herbicide Notes for Arrowhead vine:

- The waxy leaves and dense ground cover have made foliar treatments, especially with glyphosate, inconsistent. The triclopyr ester and acid formulations have demonstrated good foliar burndown, but do not provide complete stem kill with one treatment. Metsulfuron has shown excellent activity at 2 oz/A, but care must be taken around sensitive trees. Other herbicides with the same mode of action as metsulfuron (imazamox, i.e., Clearcast, Penoxsulam, i.e., Galleon, and Bispyribac, i.e., Tradewind) have all been ineffective.
- Glyphosate is effective as a reverse cut stem treatment to kill climbing vines. This eliminates the need to physically remove them. This works by poodle cutting all stems and aerial roots and immediately dipping them in a 50% solution for 2-5 seconds.

Adjuvant Considerations: Methylated seed oils can improve herbicide absorption through the waxy leaves of arrowhead vine. For any glyphosate treatment, a water conditioning agent can prevent a loss of efficacy due to hard water.

Seasonality of Treatments: Reverse cut stem treatments with glyphosate will not work well when stems exude milky sap when cut. This has been observed in the late winter.

Specific Hydrologic Considerations: Arrowhead tolerates inundation in the wet season ground cover and climbing vines will survive extended periods of inundation as epiphytes. Control will be poor if foliar applications are made when ground cover is partially or wholly inundated.

Specific Considerations for each Herbicide for Potential Non-Target Damage:

- Triclopyr ester may volatilize at temperatures above 85°F which can lead to non-target injury.
- Triclopyr acid is labeled for aquatic use when arrowhead is in standing water. However, it also has considerable in-water activity that can result in non-target damage.
- Metsulfuron has soil activity and can injure some trees shrubs and native ferns.

Retreatment Interval Considerations: Monitoring should be done at six months to assess efficacy on ground cover and retreatment by 12 months to control regrowth from root crowns, stems, and new seedlings. Climbing cover may take 6-12 months to respond to treatment. After reverse cut stem treatment, extremely large climbing stems may take 12 to 24 months to respond to treatment.

Calculations for % v/v: (Volumes must be in the same units, i.e., gallons, ounces, liters, etc).

$\% \text{ v/v} = (\text{Volume of herbicide product} / \text{total herbicide plus carrier volume}) * 100\%$

Reference Table for % v/v

% V/V	Ounces of herbicide to add for 1 gallon (128 oz) total mix size
0.25	0.32
0.5	0.64
1.0	1.28
2.0	2.56
5.0	6.4
10.0	12.8
20.0	25.6