

Java plum (*Syzygium cumini*)



MYRTACEAE FAMILY

GROWTH HABIT

Java plum (*Syzygium cumini*) is an evergreen tree that can reach ~80 feet in height, with coarse discolored bark. Trees are often multistemmed. **Flowering** normally occurs in late spring to summer and fruits mature by late summer. **Leaves** are opposite, simple, oblong, 2-5 inches in length, and are leathery and glossy. Leaf mid-rib is prominent and yellowish. **Flowers** are white or pinkish in branched clusters at shoot tips. **Fruits** are small dark purple one-seeded berries. **Seeds** are light beige to dark brown.

DISTRIBUTION IN FLORIDA: Found throughout the southern peninsula as far north as Brevard County.

Table 1. Herbicide options for Java plum
 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)	-----Recommended Approach-----				
		FOLIAR	BASAL BARK	CUT STUMP	REDUCED HACK & SQUIRT	
TRICLOPYR ESTER	GARLON 4 ULTRA, ELEMENT 4 AND OTHERS	SEE HERBICIDE NOTES ON THE BACK FOR FOLIAR TREATMENT		20%	20%	NR
TRICLOPYR ACID	TRYCERA			20%	50%	NR
TRICLOPYR AMINE	ELEMENT 3 AND OTHERS			NR	50%	NR
TRICLOPYR CHOLINE	VASTLAN			NR	50%	NR
AMINOCYCLOPYRACHLOR	METHOD 240SL			10%	10%	50%
IMAZAPYR	ARSENAL, POLARIS AND OTHERS			NR	6-9%	NR
	CHOPPER, STALKER		6-12%	6-12%	NR	

NR= Not Recommended

NOTES SECTION

Herbicide Notes for Java plum:

- Always consult the herbicide label for specific concentration recommendations. However, general foliar concentrations for most herbicides range from 0.5-2%. Concentrations may vary according to application volume and recommended herbicide concentration often decreases as application volume increases. This is typical when shifting from low volume backpack applications to high volume handgun applications. For all herbicides, foliar treatments are most effective on seedlings and small saplings. A single foliar treatment to large java plum for any of these herbicides typically results in defoliation but resprouting from the root collar is very likely.
- Foliar treatments for resprouts originating from large stumps may control the new growth. However, resprouting may occur even after the follow-up treatments.
- Basal bark concentrations are 20% for triclopyr products and 6-9% for imazapyr products. Basal bark treatment is effective on trees less than 4 inches in diameter.
- If using triclopyr ester for cut stump treatment, treat the whole top and the sides of the stump as a combined basal bark/cut stump approach. Also, keep in mind that no cut stump herbicide treatment will control all lateral root sprouts.
- Reduced hack and squirt concentrations for Method are 50-100%. This technique is extremely effective when 1 ml of a 50% solution is applied to one hack for every 2-4 inches of stem diameter.

Adjuvant Considerations: Surfactants are generally required for foliar treatments to improve herbicide absorption through the leathery, waxy leaves. Methylated seed oils are typically used for waxy-leaved species.

Seasonality of Treatments: Treatments are generally effective throughout the year. Treatments should be applied by early flowering to prevent seed production.

Specific Hydrologic Considerations: Java plum thrives in both low, wet areas and drier, upland conditions. All triclopyr formulations except triclopyr ester are labeled for use when standing water is present. For basal bark application, only Trycera can be used when standing water is present. For reduced hack and squirt, Method is fully labeled for use in uplands and seasonally dry wetlands but not when standing water is present.

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

- Aminocyclopyrachlor may injure or kill cypress, beautyberry and several other trees, shrubs and forbs. While it is safe to apply under oaks, it is still generally recommended for Individual plant treatment only.
- Imazapyr may injure or kill many other species and should not be used near desirable vegetation, especially oaks.
- Triclopyr ester may be volatile at temps > 85 F, which can lead to non-target injury.
- Although labeled for use in aquatics, Trycera should be used carefully as a basal bark treatment when standing water is present to avoid in water activity.

Retreatment Interval Consideration: Foliar treatments are generally the weakest approach on large java plum, where resprouting may occur 6 to 12 months after treatment. Seedling recruitment often occurs over the spring and summer. Seedlings may take five years to reach sexual maturity. Follow-up treatments for both new seedlings and new sprouts should be conducted within 2-3 years if possible.

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

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