



22239 N 17th Place, Phoenix, AZ 85024
Telephone: 602-788-0005 Website: www.itreeservice.com

Dalbergia sissoo Root Problems and Treatment Options

John Eisenhower, ISA Certified Arborist WE-5213A

Root and Sprout Problems

Dalbergia sissoo is a vigorous tree known to send up sprouts long distances from the parent tree. Although *Dalbergia sissoo* is not listed as an invasive species, it is considered by many horticulturists to be a nuisance tree because of its aggressive rooting and sprouting. Dr. Ed Gilman from the University of Florida discusses *Dalbergia sissoo* tree characteristics on his website at:

<http://lyra.ifas.ufl.edu/TREEServlet?command=getFloridaTree&classoid=1857>.

Root encroachment is another common problem with *Dalbergia sissoo*. Roots can threaten sidewalks, pavers, curbing, block walls and other landscape elements including lawns.

The sprouts that spontaneously emerge from *Dalbergia* roots can also destroy the beauty and functionality of surrounding landscaping. These satellite sprouts not only grow in unwanted areas; they can also grow to become new trees.

Treatment Options

Remedial treatments to control root encroachment and sprouting include chemical applications of herbicides, the use of physical root barriers and, finally, soil removal and replacement.

When you have decided to remove a *Dalbergia sissoo* tree because of aggressive roots and/or sprouting, your best option for controlling the roots and sprouts is to treat the stump with a systemic herbicide.

1. **Systemic Herbicidal Treatment:** Start by cutting down the tree but leave the stump 18 to 24 inches tall.
2. As soon as possible after cutting down the tree, drill as many 3/4" diameter X 6-inch deep holes as possible into the outer sapwood ring on the top of the stump, spacing the holes 2 to 3 inches apart. Avoid drilling in the inner heartwood area on the top of the stump because this is less conductive tissue. Drill holes near the outside edge of the stump.
3. Pour or inject a contact herbicide into the drilled holes in the stump.

WARNING: Some chemicals must be applied only by a State-licensed spray applicator. For more information, contact: <http://www.sb.state.az.us>



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IMPORTANT: Contact herbicides work by absorption into a plant's vascular system. The active chemicals placed into the stump holes are transported to the roots and also to the sprouts they produce. This systemic treatment of the stump is the most effective means of controlling satellite sprouts. Once the stump is dug or ground out, there is no way to systemically reach the roots and satellite sprouts again.

4. Wait two to three weeks to allow full absorption of the systemic herbicide into the root system. Evidence of successful absorption will be dieback and death of all satellite sprouts.
5. If there are still live sprouts after treating the stump, a second and third application may be required with an additional 2 to 3-week waiting period for full absorption. For each subsequent application, cut off the top section of the stump below the previous drilled holes. Drill new holes and re-apply herbicide.
6. If there are no live roots and sprouts after the stump treatment, the stump can now be manually or mechanically removed.
7. If there are still live roots and sprouts in the landscape after final stump treatment, there are three other treatment options: Chemical spot applications; Manual or mechanical root removal; Soil removal and replacement.
8. **Chemical spot applications:** If there are only a few sprouts, you might be able to get control by spot spraying or painting the sprouts with a full-strength systemic herbicide. Don't cut or pull out the sprouts because the larger the surface area, the more herbicide can be absorbed. If you are treating surface roots, not sprouts, it might help to dig down and expose larger areas of root surface for more effective chemical absorption. Diligent and persistent treatment over several growing seasons may be needed to fully eradicate roots and sprouts.
9. **Root Barrier:** Another option for controlling root growth is to install a root barrier. A root barrier is a shield of durable material designed to deflect roots away from a protected object or area. Barriers can be any length and are normally placed in a trench at a specific depth depending on tree species and root location.
10. **Soil Replacement:** A final remedy for root invasion is complete soil removal and replacement. This requires manual or mechanical removal of all the soil within the root zone of the tree to the full depth of the deepest roots. Once the soil and all root material is removed, new replacement soil can be installed.