

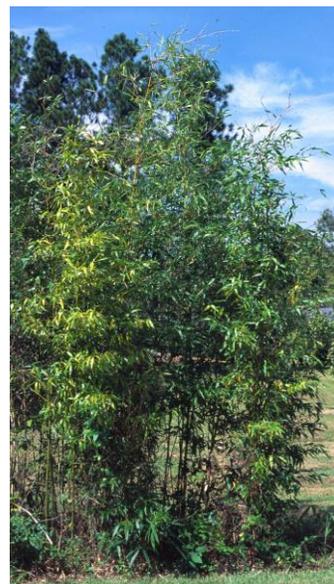
## Controlling Bamboo in Landscape Plantings

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Too often I receive the following plea: *"My neighbor planted bamboo and now it is coming up all over my yard. I have tried to kill it and nothing seems to work! What can I do?"* Bamboo is one of the most difficult to control "escaped ornamentals". Once established, bamboo can take over landscapes, stream banks, and woodlands. I have seen bamboo shoots actually breaking through concrete driveways.



Bamboo shoots can penetrate mulches and thin pavement.

There are many species of bamboo sold in the nursery trade, some more invasive than others.

Creeping types are, as a rule, very invasive once established. There are clump-type bamboos that spread at a much slower rate. Clump-type bamboos can be removed by digging up the offending plants. Unfortunately, many of the more popular types of bamboo sold in the nursery industry are the more invasive, spreading types. The plants spread by thick, tough, underground stems (rhizomes). These rhizomes are resilient to adverse environmental conditions and most herbicides. To control such aggressive weeds you must eradicate or contain the entire infestation. Treating only a part of the infestation will be doomed to failure because bamboo can re-establish rapidly. Also, bamboo control programs will require an intensive control strategy over several years.



Bamboo spreads by rhizomes which can run on the surface or more than 12 inches deep in the soil. Photo: J. Neal

## Containment

Containment of creeping types of bamboo is possible, because the rhizomes are typically fairly shallow (less than one foot deep in the soil), but difficult because they can grow over the top of barriers. Barriers made of concrete, metal, plastic, or pressure-treated wood should be installed about 18 inches deep. A barrier does not stop rhizomes, only deflects them. Therefore, the barrier should be installed with the top slanted outward and projecting an inch or two above ground level so that when the rhizomes hit the barrier they will turn upwards and can be easily seen. Inspect the barrier once or twice a year and remove any rhizomes that are visible. Temporary success has also been obtained using a geotextile fabric barrier impregnated with herbicide (Biobarrier). I call the results "temporary success" because over time leaf litter buried the fabric allowing bamboo rhizomes to grow over the top of the fabric barrier. A word of caution: no barrier will be permanent. Annual inspections to spot "escaped" bamboo will be required.

## Control

Start with physically removing as much of the rhizome and root mass as possible. For large infestations, this will require the use of power equipment. It will be impossible to remove all pieces; therefore, follow-up treatment with herbicides will generally be required. Few herbicides are effective on bamboo. One treatment regimen that has been effective combines winter applications of diclobenil (Casoron or Barrier) with summer spot sprays of glyphosate (Roundup and others). It will take at least two years of this regimen to attain control. In that time you will not be able to plant herbaceous ornamentals, hemlocks, or many other shrubs because diclobenil can kill these ornamental species. Diclobenil will prevent new shoots forming from rhizomes through early summer. After that time new sprouts will emerge and must be controlled with glyphosate or hand removal to prevent re-establishment. **CAUTION!** Diclobenil injures many common landscape plants. Read the label very carefully and follow all restrictions and guidelines.

Glyphosate (Roundup, Roundup-Pro, Glyfos, others) controls bamboo better than most other postemergence non-selective herbicides labeled for use in landscape plantings, such as glufosinate (Finale), diquat (Reward), or pelargonic acid (Scythe). In fact, some research suggests that multiple applications of glyphosate can work as well as or better than the diclobenil regime described above. Thus, this likely is a much more practical treatment for homeowners and landscape maintenance professionals. Reapply glyphosate whenever new growth is present.



Glyphosate is somewhat effective on bamboo. Repeated applications are necessary

Other research has demonstrated that the herbicide imazapyr provides excellent control of bamboo. Imazapyr is absorbed by foliage and by roots, and has a long residual in the soil. It is used in forests and rights of ways to control hardwood trees and brush, thus it should be of no surprise to find that it can also damage or kill many landscape plants. However, there are combinations of glyphosate plus imazapyr available in the consumer and commercial landscape markets. **Do not use products containing imazapyr** in landscapes where the roots of desirable plants may grow into the treated area.

If the bamboo is growing in plant beds where non-selective herbicides cannot be used, remember bamboo is a grass and can be suppressed with selective grass herbicides such as fluazifop-p (Fusilade II, Ornamec, or Grass-B-Gon) or clethodim (Envoy). Such selective grass herbicides can be applied over the top of many broadleaf ornamentals but are not as effective as glyphosate on bamboo.

Another option is to put the entire infested area into turf for several years. Bamboo does not tolerate frequent mowing – when the entire infestation is mowed regularly. Mowing only a portion of the infestation will suppress the bamboo, but new sprouts will continue to emerge from rhizomes creeping into the turf from adjacent stands.

Regardless of which method of control you choose, an intensive effort over several years will be required to eradicate a bamboo infestation. Of course, the best way to prevent bamboo from becoming a weed is to not plant the invasive, spreading-type bamboos in the first place (and ask your neighbors to refrain from this also).