

Rhizomatous Bamboo

Phyllostachys species

Also known as Running Bamboo



Identification

Rhizomatous Bamboo is the name given to a group of tall perennial grasses belonging to the genus *Phyllostachys*. Despite being of enormous economic and cultural importance in Asia, Africa, and Latin America, Rhizomatous Bamboo is not native to Australia and readily becomes invasive.

Golden or Fishpole Bamboo (*Phyllostachys aurea*) is the species that most commonly causes issues in Hornsby Shire, however other species of concern include Black Bamboo (*Phyllostachys nigra*) and Japanese Timber Bamboo (*Phyllostachys bambusoides*).

Rhizomatous Bamboo has slender running underground stems (rhizomes), rooting from the joints (nodes), with buds from the side of the node growing into new rhizomes or shoots. Above ground woody stems grow 2–22 m tall and 1–15 cm thick, with slightly swollen nodes and flattened or grooved hollow sections between the nodes. These grooves occur in an alternating pattern on the sides of the stem.



Golden or Fishpole Bamboo (*Phyllostachys aurea*)

Image: HarleyB (<https://www.inaturalist.org/observations/139392774>) CC-BY-NC 4.0 (Int)

Many 'clumping' types of bamboo are available from plant nurseries and are much less invasive. Some of the most common belong to the genus *Bambusa*. They can be distinguished from *Phyllostachys* by their round stems which lack a groove.

Risk to the environment

If not properly contained, Rhizomatous Bamboo easily spreads from gardens into adjoining bushland areas. It can also grow from dumped garden waste that contains fragments of rhizome. Infestations create an impenetrable network of roots, heavy leaf litter and dense shade that displaces native flora and degrades the quality of the bushland for native fauna species. Thickets also restrict access to fence lines for maintenance and can present a fire risk. Council contractors and community volunteers often spend significant amounts of time and resources controlling this weed in local bushland reserves.

Risk to the community

Planted in suburban gardens as a quick-growing privacy screen, Rhizomatous Bamboo easily spreads and turns into a costly nightmare. It can damage paved areas, fences and underground pipes, produce an impenetrable network of roots and heavy leaf-litter, reduce the usability and value of land, and create a harbour for vermin. It easily out-competes garden plants, ruins the soil, and sharp new growth can pose a hazard to people and pets. It causes much frustration and expense for neighbours and often results in neighbourhood disputes. Landholders often inherit the problem from previous owners.

Landholders' responsibility

Due to the risks posed to the environment and the community, Rhizomatous Bamboo should never be planted or intentionally introduced onto your land. If you already have Rhizomatous Bamboo growing on

your land and you wish to keep it, you have a duty to ensure that, so far as is reasonably practicable, the risks outlined above are prevented, eliminated, or minimised. As this is often extremely difficult to achieve, it is highly recommended that landholders agree and work together to eradicate the plant from their area. This may be a long-term project, however in the end it will prove more cost effective and preserve not only property values and infrastructure, but also neighbourhood relationships.

Neighbour disputes

If a neighbour refuses to play their part, Council does not have the power to force them to act, nor can Council become involved in disputes between landholders involving weeds. In such cases, the following may help:

1) If possible, lay the groundwork by actively cultivating a healthy, working relationship with your neighbour. This is a long-term investment of time and resources that may become extremely valuable in the future when other issues arise. Avoid the temptation to isolate from them, or to let past grievances be a barrier to your relationship.

2) Find an appropriate time to discuss your weed concerns with your neighbour in person in a calm and respectful way. Approach it as a shared responsibility, rather than solely their issue to deal with. They may not realise weeds are on their land, that they are causing you a problem, or know what to do about them. Offer to help them in any way you're able or share with them the information contained in this document. Try to reach a solid agreement about what should be done, by whom, and by when. If you are unable to talk effectively with your neighbour or the relationship has broken down, try communicating to them in writing.

3) If you cannot agree with your neighbour about what should be done, Community Justice Centres (CJC) is a free, government-funded service designed to help resolve disputes. Professionally trained mediators provide a safe, independent forum to sit down with the parties and attempt to resolve matters quickly. Visit www.cjc.justice.nsw.gov.au, scan the QR code or contact them on 1800 990 777.



Rhizomatous Bamboo spreading into neighbouring properties is often the cause of disputes.

Image: Nick Lambert (<https://www.inaturalist.org/observations/71337156>) CC BY-NC-SA 4.0

4) If mediation fails or is not possible and you still wish to pursue the issue, the Land and Environment Court of NSW provides a process for resolving disputes between neighbours relating to bamboo through the *Trees (Disputes Between Neighbours) Act 2006*. For more information, visit www.lec.nsw.gov.au, scan the QR code, or contact them on 02 9113 8200.



Bamboo control

There are a several reasonably practicable options available to landholders for preventing, eliminating, or minimising the risks posed by their Rhizomatous Bamboo. Techniques can be either physical (non-chemical), chemical (using herbicide), or a combination of both. For eradication to be successful, it's important to remember:

- The longer an infestation is left untreated, the more difficult and expensive it will be to control



- Regardless of the method used, eradication will require patience, perseverance and a long-term approach (a one-off 'blitz' ultimately achieves little)

- If the infestation spans several properties, all landholders need to be on-board and involved, or the plants will simply spread back into your property

Getting help

Although Council cannot control your bamboo for you, we are always willing to provide advice. Please contact us through the Online Services Portal (www.hornsby.nsw.gov.au) or scan the QR code.



Landholders unable to control this weed on their property themselves may like to try one of these options:

1) Engage a specialist bush regeneration contractor to undertake the work at competitive rate; many are

listed on the Australian Association of Bush Regenerators website. Visit www.aabr.org.au/do/business-directory, or scan the QR code.



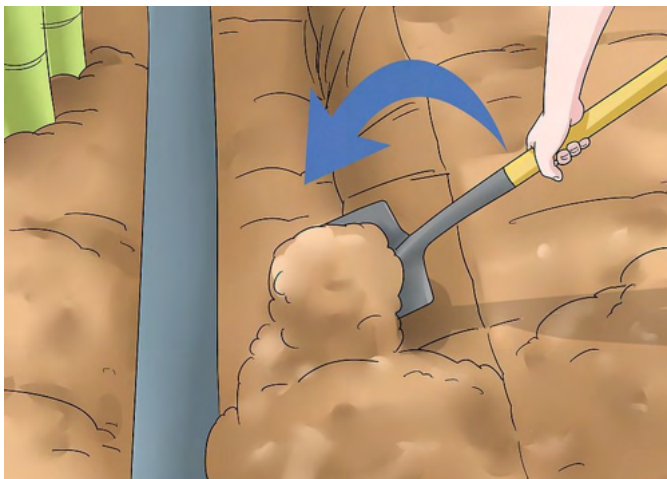
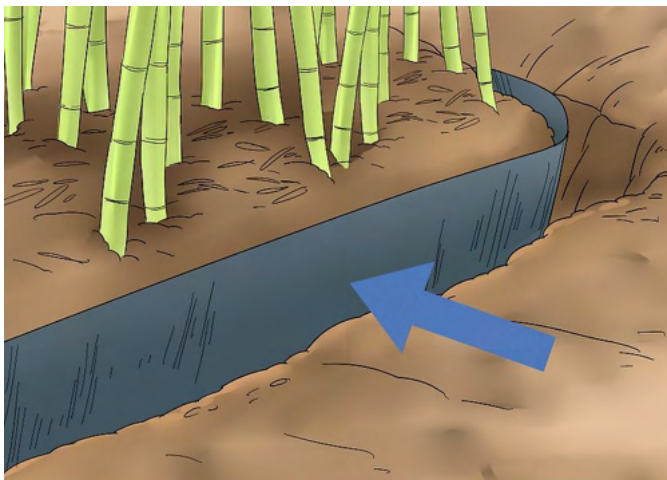
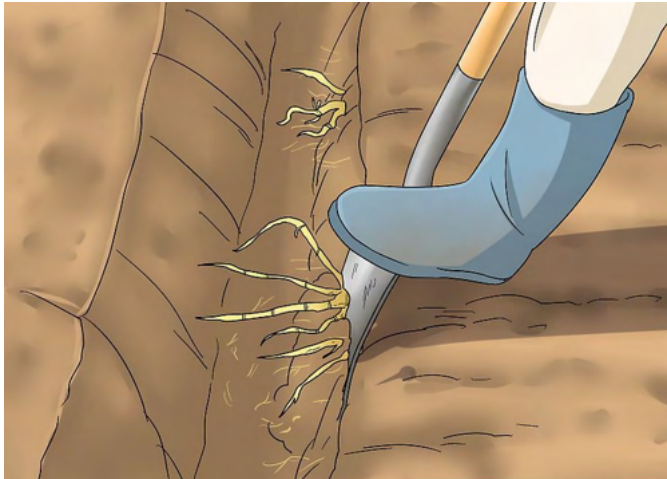
2) Engage a qualified arborist or garden maintenance operator; search online or in local newspapers.

3) For frail people, carers, or those with mobility impairment, try Easy Care Gardening, a subsidised gardening service by teams of volunteers. Contact them on 9983 1644, visit <https://www.easycaregardening.org.au>, or scan the QR code.



Disposal of material

Most control methods will involve the disposal of a fair amount of vegetative material. Material should never be dumped on a neighbouring property, on a roadside, or in a bushland reserve. Some options for disposal could include:



Installing a root barrier to prevent the spread of bamboo

Image: Lauren Kurtz (<https://www.wikihow.com/Control-the-Spread-of-Bamboo>) CC BY-NC-SA 4.0

- Loading the material onto a trailer, ute, or truck and taking it to Kimbriki Resource Recover Centre in Terry Hills (fees apply - visit kimbriki.com.au)
- Hiring a rubbish removal service or a skip bin
- Stockpiling the material and progressively cutting it up and placing it in your green bin (ask your neighbours if you can also borrow theirs if they're not full)
- Hiring a heavy-duty chipper and using the chipped material as mulch on your gardens
- Hiring the services of a professional tree lopper to chip the material to place on your garden or take away
- Use the stems as garden stakes, building material, or in craft projects, or find someone who may want them

Physical control methods

Containment

If Rhizomatous Bamboo is to be retained (not recommended), it will need to have some method of containment in place to prevent it from spreading throughout your property and into neighbouring land. This could be achieved by keeping them in suitable pots, however any container would need to be inspected regularly for holes or cracks through which rhizomes could penetrate.

For plants already in the ground, root barriers should be installed completely around the plants from a material that is not likely to crack or degrade over time. Root barriers are available at many nurseries or hardware stores, especially those selling bamboo. They should be inserted around 600mm into the ground and protrude 100mm above the ground, and no closer than 1m from neighbouring properties.

Even for contained plants, consideration should still be given to the impact they may have on neighbouring properties, such as dense shading or the dropping of debris.

Physical removal

For small infestations, or where there is good access for machinery, digging out all the rhizomes may prove the best solution. The following tips may prove helpful:

- Cutting and removing the stems and leaves first allows better access to the bases and rhizomes.
- A long handled shovel, mattock, or fencing crowbar may be the best tools for digging out small amounts of rhizomes by hand.
- Missed fragments of rhizome have the potential to re-sprout; if the area is not too large, consider sifting the soil to catch any fragments.

Slashing

Another less invasive method is by cutting or slashing every visible stem of the plant at the level below the lowest leaf. Once cut, the stems will slowly die and fall over. The soft tops of new shoots that appear for several weeks afterwards are easily snapped off and should not be allowed to reach over 30 cm or they will harden. If this is kept up over two or three successive years, the underground rhizomes become exhausted, and the plant dies. Please note, for this method to work, every stem must be treated.

Chemical control methods

Rhizomatous Bamboo may be effectively controlled using a herbicide containing glyphosate 360g/L. This herbicide is available at most hardware stores under various brand names. Make sure, however, it contains glyphosate 360g/L as other concentrations are also sold. Glyphosate is a systemic herbicide, which means that once applied the plant takes it throughout the whole system. It is, therefore, most effective in warmer seasons when plants are actively growing and less so in winter or when plants are suffering from drought or are waterlogged. It should not be used when raining or if rain is imminent, or close to creeks or water courses. Glyphosate is also non-selective, meaning it will impact any other plants it comes into contact with.



These products all contain glyphosate 360 g/L and are available from most hardware stores.

When using herbicides, you must always read, or have read to you, the label, and any current off-label use permits (if relevant) before using the product, and strictly comply with the directions on the label and conditions on any permit.

The following personal protective equipment (PPE) is recommended when handling and using glyphosate:

- Fully enclosed impervious shoes or gumboots
- Overalls or long-sleeved shirt and long pants
- Gloves made from nitrile rubber or PVC
- Safety glasses or face shield
- P3 respirator (recommended if spraying)

Always wash your hands after using glyphosate, especially before smoking, eating, drinking, or using the toilet, and wash contaminated clothing and other protective equipment before storing or re-using. Glyphosate should be kept away from food, drink, and animal feed, and not used while eating, drinking, or smoking. Avoid contact with clothing, eyes, and repeated or prolonged contact with skin. Avoid inhalation of vapour, mist, or aerosols, and before using identify a place to wash out your eyes should they accidentally get splashed.

Cut and paint method

This method can be used on all stem sizes. Tools and equipment required include:

- Personal protective equipment (see above)
- Cutting tools appropriate for the diameter of the stems, e.g., secateurs, loppers, hand saw, or chainsaw
- Glyphosate 360 g/L (various product names)
- Herbicide dye (helps to show where you have applied)
- Clean water
- Measuring cup or container
- Funnel
- Small paint brush or applicator bottle

Method:

- 1) Read (or have read to you) the herbicide product label and follow its directions.
2. Put on the appropriate personal protective equipment.

3. Using a measuring cup, carefully mix some of the concentrated glyphosate 360 g/L with water at a ratio of 1 to 1.6. For example:

Glyphosate 360 g/L	Water	Total Volume
25 ml	40 ml	65 ml
50 ml	80 ml	130 ml
100 ml	160 ml	260 ml
125 ml	200 ml	325 ml

Note: only make enough for your task, as the mixture will become ineffective if kept for prolonged periods of time.

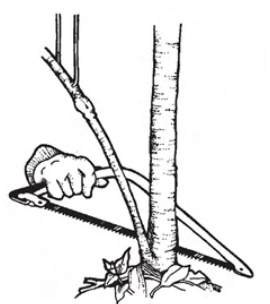
4. Add a small amount of herbicide dye to the mixture, according to the instructions on the label.

5. Begin with the outlying stems and progressively work towards the core areas.

6. Cut the first stem to a height of around 20 cm above the ground.

7. Within 30 seconds of cutting the stem carefully pour a small amount of herbicide into the hollow and apply it also to the surface of the cut stump with a small brush or applicator bottle.

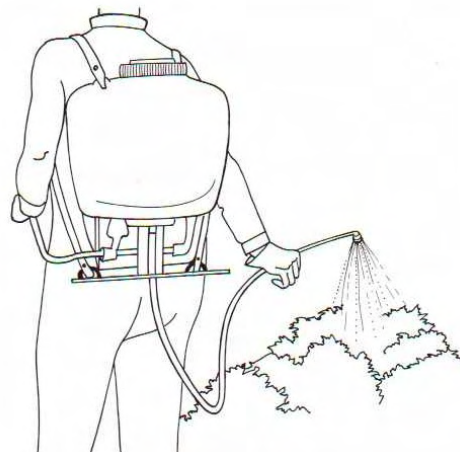
8) Repeat this process for every visible stem and whenever a new shoot appears. Over time new shoots will become rarer until the whole network is dead.



Cut and paint method using a herbicide applicator bottle.

Spray method

This method should only be used when foliage is between 1 and 2 metres tall and is particularly useful for regrowth after the bamboo has been cut down or slashed. It should not be used on tall plants. Spraying should be planned for days of low wind and no rain.



Tools and equipment:

- Personal protective equipment (see above)
- Sprayer with an appropriate volume for size of the job, i.e., hand-held, backpack, or vehicle-mounted
- Glyphosate 360 g/L (various product names)
- Herbicide dye (helps to show where you have sprayed)
- Clean water
- Measuring cup or container
- Signs to notify passers-by that herbicide spraying is occurring

Method:

1. Read (or have read to you) the herbicide product label and follow its directions.
2. Check the local weather forecast to ensure no high wind or rain is expected.
3. Put on the appropriate personal protective equipment.
4. Place out signs where people may pass close by.
5. First add water first to the sprayer, followed by the concentrated glyphosate 360 g/L at a rate of 10 ml to 1 litre. Note: only make enough for your task, as the mixture will become ineffective if kept for prolonged periods of time.
6. Add a small amount of herbicide dye to the mixture, according to the instructions on the label.
6. Spot-spray the bamboo, wetting as much of the foliage as possible. Be careful not to spray off-target plants as they will also be affected.
7. Repeat whenever re-growth occurs.