

## Bamboo for Northern Climates<sup>®</sup>

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When we think of bamboo, our imagination leads us to thoughts of lush exotic landscapes surrounded by tropical plants or awakens our worst fears of a garden overrun by bamboo. Bamboos are fascinating plants that can bring a touch of elegance and beauty to a northern garden in an unexpected way. The combination of stiff but flexible stems and soft graceful leaves that can remain evergreen all year can provide many design opportunities whether used in an oriental garden or tastefully placed in a more conventional landscape. They can be used as ground covers, for erosion control, screens hedges, groves, and specimen plants.

About 1000 species are found around the world, along with an additional 1000 varieties, forms, and cultivars. Bamboos are native to every continent except Europe and Antarctica. Generally, tropical bamboos tend to be clumpers and temperate bamboos tend to be runners.

Whether they run or clump, bamboo should be thought of as a colony, not as an individual plant. The canes are called culms and are supported by rhizomes (remember that bamboo is a member of the grass family). The rhizomes have nodes and internodes, with new rhizomes and culms arising from the internodes. In May and early June new culms emerge from rhizomes at their mature diameter, growing rapidly for 40 to 60 days to full height and then unfolding their branches and leaves. The foliage is retained all year with few exceptions. New leaves emerge each spring usually in May with old leaves dropping to the ground in June. In mid to late summer culm development slows and bamboos do most of their growing underground with rapid rhizome development laterally expanding the size of the grove.

Species and siting can affect how evergreen foliage will stay in a northern garden. I have found that most groundcover forms (*Pleioblastus*) tend to have brown foliage by late winter and should be treated as a herbaceous plant and cut to the ground before new culms appear in late spring. Canes on larger growing forms of *Phyllostachys* can live for 5 or more years.

Bamboos are not very temperamental. They like humidity and will grow in moist soil, but will not tolerate waterlogged conditions. They prefer a rich organic soil amended with leafmold or rotted manure and will adapt to sun or shade. In the case of taller growing forms, maximum height can best be attained in a sunny site. The exception is *Fargesia*, which prefers partial shade, especially from hot afternoon sun. To keep the best foliage characteristics site them away from harsh drying winter winds.

Being grasses, bamboo are heavy feeders and want to be fed regularly with a high nitrogen fertilizer. Moisture is important and groves should be irrigated regularly with deep irrigation during the growing season. It is a good idea to reduce watering in late August to reduce late growth that could be vulnerable to winter kill.

Use mulch that will not mat such as compost or rotted leaves to keep the ground moist and insulate against temperature extremes. It generally takes 3 years for a planting to settle in and take on the appearance of a grove.

One of the biggest concerns in using running forms of bamboo is controlling their aggressive nature. They will quickly overrun a bed of low-statured plants such as





perennials or small shrubs and therefore should not be mixed without considering some means of control.

I recommend a barrier of fiberglass or 40- to 80-mil pool liner buried to a depth of at least 2 to 3 ft. This should be placed at a 45° angle facing outward at the top. Remember to seal all seams, as bamboo will take advantage of the smallest opening. Bury all but 1 or 2 inches of the collar to leave a narrow rim above the ground. After placing the barrier do not add anything other than tightly compacted soil to the bottom of the hole to reduce the possibility of rhizomes escaping from the bottom. Soil amendments should only be added near the surface so as not to encourage deep rooting.

It is essential to monitor all running bamboo; even those contained within a strong barrier. Wherever mulch or tall vegetation creates a moist, dark area near the top of the barrier, runners will sneak over and out.

Large types of bamboo (*Phyllostachys*) are difficult to confine to a grove smaller than 100 ft<sup>2</sup>. The easiest way to control a large grove without a barrier is to surround it with at least 30 ft of turf and mow regularly. Thinning the grove regularly, by taking out culms over 4 years old will allow large new culms to fill in and make the bamboo less inclined to break out.

The safe alternative is to use clumping forms of *Fargesia* which are extremely hardy (-25°F) and do not have invasive rhizomes, but grow in easily maintained clumps that expand like a clump of ornamental grass. They can be successfully combined with hostas and other shade loving plants where rich soils and adequate moisture will help them thrive.

With care and understanding, bamboo can provide a mystique in northern gardens not possible with other plants. Awareness and careful placement is the key. Bamboos are not for every gardener or every garden.

**Bamboo Hardiness.** Any bamboo may die completely to the ground in severe winters, however their roots should persist and new culms appear in spring. A great deal of hardiness has to do with placement in the landscape, wind, and winter protection. Table 1 list bamboo species successfully grown in Ohio.

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## Question Box General Session Wednesday, October 4, 2000<sup>©</sup>

### MODERATED BY ALAN JONES

**JIM JOHNSON:** Question for Mike Rizzi. Have you tried it in the fall and spring?

**MIKE RIZZI:** Yes we tried both and the spring has given us the best results. I checked the degree days for other regions and it is about 90 degree days based on 50°F.

**DEB MCCOWN:** Question for Jim Ault. I have observed that the monarch and swallowtails will visit some species of liatris and not others. Are you looking at all at that characteristic?

**JIM A. AULT:** Yes I have observed that feature with some of the species and hybrids.