

BAMBOO

GROWN AT Summer Hill Nursery

Please note - we are wholesale growers and do not deal directly with retail customers or homeowners. This is for information only. Homeowners should contact their local garden center or landscaper regarding availability and prices, etc.

We have been growing hardy bamboo at Summer Hill for over ten years now and, while we are not yet “experts”, we have learned a lot about how various varieties respond to our climate and which ones are most popular with the gardening public.

Included is some general information about hardy bamboo and descriptions of the varieties we are growing.

Basic Bamboo Information

The following is an extremely simplistic, but hopefully helpful, bit of information. This is coming from someone who knew nothing about bamboo twelve years ago, so I am aware of the type of information the novice requires.

To start with, the bamboo cane as we think of it, is called a culm while it is still alive and part of the plant. It becomes a “cane” after it is cut off and dried. The process of culms emerging from the soil is called “shooting”, as in “*Fargesia murielae* shoots a lot earlier in the season than *Fargesia nitida*”. The growth period for a bamboo culm is somewhere between six and eight weeks. All the height that a culm will achieve takes place in this period of time. Three to five inches of growth a day is not uncommon for some of the faster growing varieties, and indeed the growth rate can exceed that by quite a bit. Although the culms produced in a given year will not grow any taller, the culms in

subsequent years generally have a larger diameter and will grow taller. Therefore, the bamboo planting will gain in height; however, the original culms will stay the same size until they die after four or five years. Most hardy bamboo species are evergreen. Very harsh winters may kill the leaves and turn them tan; however, the plants will regenerate new leaves the following spring and early summer. Plantings of bamboo increase in area because of rhizomes (underground stems). There are two types of rhizomes, as you will see in the paragraphs below.

CLUMP BAMBOO

For our purpose here, we can divide bamboos into two general types. Clump Type – a single plant of bamboo that will produce culms that are taller as the years go by and will also spread, but only at a very slow rate, as a clump. The rhizomes are short and the growing end of each one forms a culm. The only clump bamboos hardy in New England are species of *Fargesia*. It will take several years for an individual clump to have a diameter of let's say four feet because it will just be adding culms around the edge of the original plant.

RUNNING BAMBOO

The other type of bamboo is called Running Bamboo. Here the rhizomes do indeed run away from the original planting – ten to twelve feet in a year would not be uncommon for some varieties. The following spring, culms will be produced along the length of these rhizomes. Therefore, running bamboos can spread quite rapidly and, depending on where they are planted, containment devices should be installed to restrict their rapid spreading.

INVASIVE?

Running bamboos are sometimes called invasive, but that is not a valid term at this point since “invasive” is being used by environmentalists to describe plants such as *Elaeagnus*, Bittersweet, Multiflora Rose, Loosestrife and other plants that are spread by seed and can become a dominant plant within an ecosystem. This is unlikely to happen with bamboo since, in most cases, when a bamboo flowers, the plant dies and any possible seed germination would be restricted to the immediate area and the chance of any seed germination is remote.

Most of the bamboos that are in commercial production come from Asia, and in some cases a single plant of a species was introduced into Western Europe and the United States. Divisions from this single plant may have become the only stock of this species available. Since they are all from the same plant, they all flower and die at approximately the same time. An example of this is *Fargesia murielae*, which in the 1990's blossomed and died throughout Western Europe and the United States. Just about all the original plants of *F. murielae* have died, and plants in production now come

from seedlings of this blooming period. *Fargesia murielae* is not expected to bloom again for another ninety years or so. Other species that were introduced into cultivation from many different plants will have blooming periods that are quite different, and these species will not bloom at the same time. Not all bamboos die after bloom as do the *Fargesias* but plants are hurt by flowering and may take years to recover.

SHADE, SUN, SOIL

Almost all the bamboos that are hardy in New England, with the exception of *Phyllostachys* and *Hibanobambusa* forms, require partial to full shade. When I describe the various varieties, I will mention whether they require shade or full sun. One of the questions asked a million times in the nursery business is: What can I plant in the shade? Well, here is the answer – most varieties of bamboo, especially the variegated forms, are excellent plants for a shady area. The variegated forms will “light up” a shady area very well and are happy in this location.

Another question that comes up is the type of soil, fertilization and the amount of dampness bamboo can withstand. Good average garden soil will produce fine plants. Almost all bamboos need good drainage. Adequate moisture is important, but they do not like wet feet and therefore wet areas are sometimes used as a containment device for running bamboo. Some forms of bamboo are very low growing. *Pleioblastus distichus* will only grow approximately one foot tall and is used as ground cover. Many of the ground cover bamboos are mowed to the ground every spring so that the new culms coming up in the early summer make a better show. There are mid-sized shrub type bamboos, some are variegated and quite showy. However, when most neophytes think of bamboo, I believe they either think of the *Phyllostachys* forms which are running and produce big, large groves of bamboo if left unchecked; or *Fargesia* species which are clump bamboos, growing only to about eight to ten feet tall and staying contained by their own growth habits.

Hardiness, of course, is a very important factor for us in the Northeast, and there is quite a bit of difference in the hardiness attributed to different species and varieties depending on which source you are reading. When describing different species of bamboo we will give what we think is an average low temperature they will survive and we will try to stay on the conservative side.

Please see page 10 for information on containing running bamboo species.

To the best of our knowledge, deer do not eat bamboo.

Clump Type Bamboo

Fargesia denudata

Height: 10-12 feet

Minus 10°F

Full Shade

This is a new and rare *Fargesia* that is somewhat similar to *Fargesia murielae*. It has yellowish green culms and pea green leaves and tends to have a taller more upright habit than *F. murielae*.

Fargesia dracocephala

Height: 7-10 feet

Minus 10°F

Dragon's Head Bamboo

Partial Shade

This species forms a very tight and full growing clump with a somewhat weeping habit. It has the typical willow-shaped leaf of all the *Fargesia*. If in partial sunshine, the culms may turn a dark color, in some cases red or reddish-black. This species can stand more sun and drier, hotter conditions than other *Fargesias*.

Fargesia murielae

Height: 12-15 feet

Minus 20°F

Umbrella Bamboo

Full Shade

This is one of the best known of the *Fargesias*, forming a very tight clump with a weeping, arching habit to the culms. The leaves are a light green and the culms are also green. The weeping form gives it a very delicate appearance; however, it is one of the hardiest of the hardy bamboo group. *Fargesia murielae* plants bloomed (and died) in the 1990's and the new generation shouldn't bloom again for 90 years...plants available now are seedlings from this blooming period.

Fargesia nitida

Height: 12 feet

Minus 20°F

Blue Fountain Bamboo

Full Shade

This plant forms an upright clump with weeping fountain like culms that are dark in color. The culms of *F. nitida* are a bit different in that they do not make branches the first year. This is a very upright growing form of *Fargesia*; however, the culms have a weeping habit at the top. Most of our plants of *Fargesia nitida* flowered in 2005 and 2006 and subsequently died. We have hundreds of seedlings from our own propagation that are available in two and three gallon containers. Plants from this new generation should not bloom for another 90 years

Fargesia robusta

Height: 15 feet

0°F Minus 15°F

Robust Bamboo

Partial Shade

This species grows taller and is a stronger appearing plant than the other *Fargesias*. *F. robusta* can withstand being exposed to quite a bit of sunlight although it would prefer partial shade. It is not as hardy as the other *Fargesias*. Some reference work lists it as being able to withstand minus 15°F, but other sources give it a hardiness rating of about 0°F. It died to the ground here at -7°F in the winter of '03-'04 and we don't consider it culm hardy below 0°F.

Tall Growing or Giant Bamboo

Arundinaria gigantea

Height: 30 feet

Minus 10°F

River Cane

Full Sun

River Cane is the only bamboo native to the United States. At one time it covered thousands of acres in the southeastern part of the U.S., providing food and habitat for a wide range of animals. Since *Arundinaria* preferred good, loamy soil, most of it has been eradicated to make way for farms. However, there are still scattered native stands of *Arundinaria gigantea* stretching as far north as southern New Jersey. This is a rather coarse but rapid growing bamboo that is valuable for screening purposes.

Phyllostachys Varieties

Most of the large, hardy bamboos available at this time are of the genus *Phyllostachys*. Both the culms and rhizomes of those listed here are hardy to at least 0°F and some have culms hardy to -20°. They are all evergreen, but the leaves will show some damage in very cold windy winters. The culms of the less hardy varieties may die to the ground, but new culms should be produced by the rhizomes the following spring. They vary in the rapidness of rhizome growth but all prefer full sun. *Phyllostachys* require good drainage and prefer to be on the dry side. Their main attribute, and a distinction between species and varieties, is the color of their culms. Unless a dense screen is desired, the lower branches should be removed so that the culms are apparent. Also, as the planting gets more established, smaller less significant culms should be removed so the distinctive features of the larger culms become prominent. In describing the culms, I may use the word *sulcus*, which is the groove in the bamboo culm formed as the culm elongates under the culm sheath. This is where the branches extend.

Phyllostachys atrovaginata

Height: 30 feet

Minus 5°F

Incense Bamboo

Full Sun

One of the most important attributes of this species is the fact that it has air canals in its rhizomes and roots, which allow it to grow in somewhat wet or boggy soil. Most of the *Phyllostachys* forms want to be in an area with good drainage, but *P. atrovaginata* can stand moderately wet areas that, unfortunately, many people falsely associate with bamboo. The surface of the culm is said to have a scent that resembles sandalwood, therefore, the name Incense Bamboo.

Phyllostachys aureosulcata

Height: 35 Feet

Minus 15°F

Yellow Groove Bamboo

Sun

Excellent, very hardy species, the culms are good bright green with a yellow *sulcus*. This variety grows very upright.

Phyllostachys aureosulcata 'Aureocaulis'

Height: 30 Feet

Minus 15°F

Yellow Culm

Sun

This is very similar to *P. aureosulcata*; however, the culms are entirely yellow and it

the more exposed colder locations.

Phyllostachys vivax Very Tall
Height: 70 Feet Minus 5°F Sun

In the right locations, probably not in New England, this bamboo can reach the height of 70 to 75 feet, making it the tallest of the hardy bamboos. The culms are somewhat weak; therefore, there is the risk of them fracturing under strong winds or wet snow. Good green culms; this is a nice variety especially if you want some height quite rapidly.

Phyllostachys vivax aureocaulis Golden Vigorous Bamboo
Height: 70 Feet Minus 5°F Sun

This is a very new introduction to this country. It has the same attributes of the species type; however, the culms are a good yellow with random green stripes - an exceptional new variety - very rare. Both *vivax* and *vivax aureocaulis* have a particular growth habit. Many of the culms grow at a slight angle instead of growing straight up. It gives a grove of *vivax* a distinct appearance.

Phyllostachys aureosulcata 'Harbin' Green Culm Thin Yellow Stripes
Height: 32 Feet Minus 10°F Sun

A new variety with interesting green culms. It has shorter branches than other varieties giving it a very neat appearance.

Phyllostachys aureosulcata 'Harbin Inversa' Yellow Culm Thin Green Stripes
Height: 32 Feet Minus 10°F Sun

Same habit as 'Harbin' but the color of the culms is reversed. Basically a yellow culm with barely noticeable green thin striping.

Pseudosasa japonica Arrow Bamboo
Height: 18 feet Minus 5°F Partial Shade to Full Sun

This is a rather coarse bamboo but it has very large leaves that can be up to a foot in length, making it very effective as a tall hedging plant. It appears to be quite tolerant of salt air; therefore, it would be a good plant to use near the ocean. This is an excellent bamboo for hedging - very erect and the large leaves are quite impressive. The Japanese made arrows from its straight culms, therefore the common name.

Semiarundinaria fastuosa Palm Tree Bamboo
Height: 34 feet Minus 5°F Sun

This is another bamboo that, because of its height and wide leaves, makes a very imposing screening hedge. The green culms, when exposed to sun, gradually turn a brick red to purple-brown color. It does not run as aggressively as other spreading bamboos, and it is also tolerant of salt air.

Running Bamboo Barriers

There are several methods of containing running bamboo. Water or very wet areas will usually stop bamboo, as they do not like wet conditions, with the exception of a few varieties. If large bamboo is planted in the center of a lawn area, just mowing the lawn during the time of shooting will keep the bamboo under control by constantly breaking off and cutting the culms.

The best containment device available at this time is semi-rigid polyethylene. Depending on which type of bamboo you are planting, a 24 to 36 inch width of 30 or 60 mil poly can be used. When planting the bamboo, a trench should be dug outlining the boundary of the desired spread of the bamboo and the poly barriers placed to a depth required for the bamboo being planted. (For *Pleioblastus* a 24" by 30 mil poly should be enough – but for *Phyllostachys*, *Sasas*, and other large bamboo, a 30" or preferably a 36" deep, 60 mil sheet should be used.) Two strips of metal bolted together are commonly used to attach the two ends of the plastic so that no rhizome can find its way through the joint. If the barrier is placed in a square or rectangular shape, the corners should be rounded so the rhizomes will tend to curl around the plastic instead of trying to penetrate it on a sharp corner. This method should work quite well, but the top of the plastic should be inspected every fall to make sure that no rhizomes have jumped the plastic (assuming the plastic would be covered with mulch to put it out of sight). If any rhizomes have escaped, they should be cut off and removed from the ground.

OTHER METHODS OF CONTAINMENT

To keep ground cover types of bamboo restricted to a certain area, we have sprayed Roundup (in early summer), all the culm growth beyond the area we wanted contained. All the sprayed areas died, but there was no damage to the area we wanted contained. Of course, this treatment has to be repeated every year or two to keep the planting the desired size, as new rhizomes will spread back into the outer area.

ERADICATION OF EXISTING STANDS OF BAMBOO

Some people will tell you "Watch out for bamboo – once it gets started it spreads all over and you can't kill it. You can't get rid of it." However, in the summer of 2009, we proved that you can. We had a stand of various varieties of *Phyllostachys* that was about 100 feet by 30 feet – a solid mass that was starting to spread. We sprayed the entire grove with Roundup (actually one of the generic brands of glyphosate.) We didn't see much activity in two weeks so we sprayed again. By fall, all the culms looked sick and in the spring of 2010 only one, very tiny, misshapen culm emerged. We would say the experiment was 99.9% successful. This proved that bamboo can be eradicated very easily if necessary. In the summer of 2012 we sprayed another area of *Phyllostachys*

aureosulcata; this time we got 100% kill and the bamboo next to the sprayed area was not harmed in any way.

TO SUM UP

Hardy bamboo can be of great use in mid to southern New England for a variety of purposes. There is no good reason not to enjoy it. It needs to be managed, as do most of the other plants we use in landscaping. I hope this information helps you understand its potential use so more people can enjoy this group of wonderful plants.

For more detailed information, we recommend
Bamboo for Gardens by Ted Jordan Meredith Timber Press