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# GROWING ORNAMENTAL BAMBOO

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# GROWING ORNAMENTAL BAMBOO

PREPARED BY CROPS RESEARCH DIVISION,  
AGRICULTURAL RESEARCH SERVICE

Bamboo needs warm temperatures to grow successfully. Even the hardiest species are killed by temperatures lower than  $-10^{\circ}$ . Some bamboos cannot survive temperatures below freezing.

Like most other ornamental plants, ornamental bamboo grows best in fertile, well-drained soil. The plants need a generous supply of water, but should not be planted in a swampy location.

## HOW BAMBOO GROWS

Bamboo canes grow from rhizomes, which are underground stems. Rhizomes of some species spread slowly; new canes rise from them close to the bases of the old canes. These are the clump bamboos.

Other species have rhizomes that spread rapidly. In these species, rhizomes may grow laterally 2 to 3 feet from the original plant in the first year. The rate of growth increases each year after the first. The rhizomes may spread as far as 15 feet in one season. These species with rapidly spreading rhizomes are the running bamboos.

Soon after a bamboo cane appears above the ground, it is as thick as it will be when fully grown. The cane lengthens rapidly; usually it grows to its full height in 5 to 8 weeks, sometimes growing at a rate of a foot or more a day.

Canes of maximum size are not produced by the bamboo plant until several years after the rhizome is first planted.

## BUYING PLANTS

Bamboo planting material is most commonly sold as started plants. The plants can be set in the garden as soon as they are received.

Some nurseries also sell rhizome cuttings of running bamboo. Rhizome cuttings are less expensive than started plants.

The U.S. Department of Agriculture does not distribute planting stock. For a list of nurseries that sell bamboo, write to Crops Research Division, Agricultural Research Service, U.S. Department of Agriculture, Washington 25, D.C.



PN-970

Newly emerged cane of running bamboo. The cane is as thick as it will be when mature. It will grow rapidly in height, however, reaching a mature height of more than 60 feet in 5 to 8 weeks.

## ORNAMENTAL SPECIES

Many species of bamboo are suitable for ornamental purposes. The species described here have been selected because of their distinctive appearance, their availability, or their adaptation to low temperatures.

The zones referred to in the descriptions of adaptation are illustrated in the map on page 4.

### Clump Bamboos

The clump bamboos are ideally suited for ornamental uses in their area of adaptation. They can be planted in groups for hedges or singly for specimen plantings. They spread very slowly and are easy to keep within bounds.

Clump bamboos are native to tropical or subtropical regions; their culture is restricted to the warmest parts of the United States (zones A and B).

Species of clump bamboo include Oriental hedge (*Bambusa multiplex*), Oldham (*B. oldhami*), and Puntingpole (*B. tuldooides*). Oriental hedge is the most widely grown species. It is available in its typical form and in seven varieties. One of the varieties—Chinese Goddess—is a dwarf.

Table 1 lists the species and varieties and shows the approximate size of each. Following are comments on the appearance of canes and leaves:

*Canes.*—The canes of Alphonse Karr are yellow and have green stripes. Those of Stripestem Fernleaf are reddish or yellowish and have green stripes. All the other bamboos listed in table 1 have solid green canes.

*Leaves.*—The leaves of Silverstripe Fernleaf and Silverstripe are green and have white stripes. All the other bamboos listed in table 1 have solid green leaves. These varieties

TABLE 1.—Approximate size of ornamental clump bamboo at maturity, by species and variety

Species and variety	Height	Diameter of canes
	<i>Feet</i>	<i>Inches</i>
ORIENTAL HEDGE BAMBOO:		
Typical form.....	35	1½
Varieties:		
Chinese Goddess.....	10	¾ to 1½
Alphonse Karr.....	25 to 30	1½
Fernleaf.....	10 to 20	1¼
Silverstripe Fernleaf.....	10 to 20	1¼
Stripestem Fernleaf.....	10 to 20	1¼
Silverstripe.....	45	1½ to 1¾
Willow.....	20	⅝ to ¾
OLDHAM BAMBOO.....	55	¾
PUNTINGPOLE BAMBOO.....	55	2¼

have fernlike leaves: Chinese Goddess, Fernleaf, Silverstripe Fernleaf, and Stripestem Fernleaf.

## Running Bamboos

The running bamboos are hardier than the clump bamboos. Some species of running bamboo can be grown as far north as Boston.

These bamboos are more difficult to keep in bounds than the clump bamboos. However, they are desirable as ornamental plants because of diversity in their habit of growth, in their appearance, and in their size.

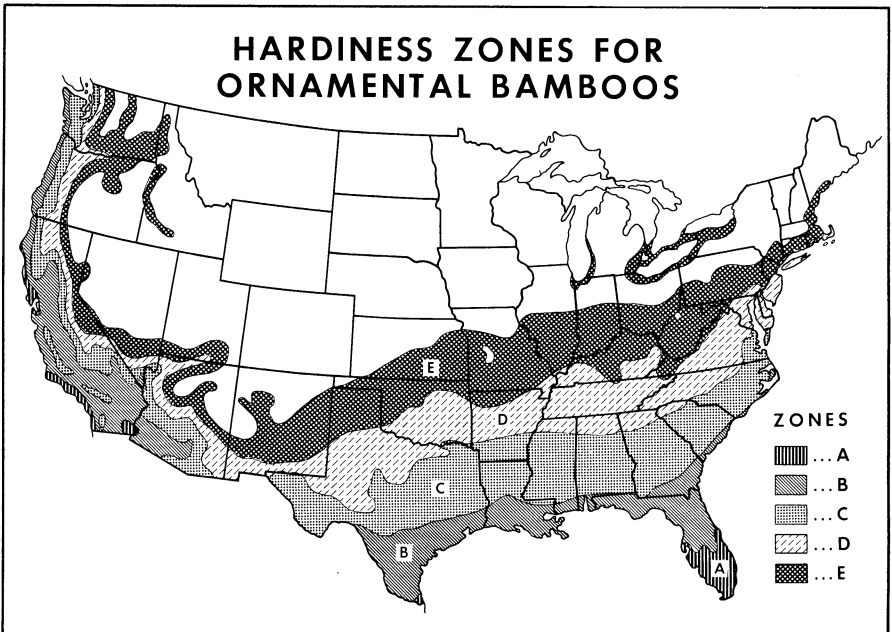
Following are descriptions of some of the more desirable species of running bamboo:

**FISHPOLE BAMBOO** (*Phyllostachys aurea*).—Grows to a height of 30 feet. This species is one of the most widely available bamboos in this country. It grows in zones B, C, and D.

**YELLOWGROOVE BAMBOO** (*Phyllostachys aureosulcata*).—Canes grow 33 feet tall and 1½ inches in diameter. The canes are green and, during the first year of life, have yellowish grooves above the points where the branches are attached. Leaves of this species are up to 6 inches long when the canes are young. As the canes grow older, new, smaller leaves appear. This species is adapted to zones B, C, and D.

**METAKE** (may-TAH-kay) OR **ARROW BAMBOO** (*Pseudosasa japonica*).—A slow-spreading bamboo. Canes grow 18 feet tall and three-fourths of an inch in diameter. Leaves are medium large—5 to 13 inches long—and are evergreen where the temperature does not go below 5°. It is adapted to zones B and C.

*Sasa palmata*.—Mature canes are 7 feet tall and five-sixteenths of an inch in diameter. Leaves are large





PN-978

Budding cane arising close to the base of a clump bamboo.

and bright green. *Sasa palmata* spreads rapidly if it is not restricted. It has a wide range of adaptation—zones B, C, D, and E.

**NARIHIRA BAMBOO** (*Semiarundinaria fastuosa*).—Canes grow 25 feet tall and 1¾ inches in diameter. Leaves are up to 9 inches long. This bamboo spreads more slowly than most other running bamboos. It is adapted to zones B, C, and D.

## PLANTING

Prepare the soil as soon as it is workable in the spring. Loosen the soil to a depth of at least 12 inches. If the soil is heavy, add sand or cinders to improve the drainage.

Set the plants before they begin to sprout. Try to finish planting before March 15 in zones A and B, before April 15 in zones C and D, and before May 1 in zone E.

## Clump Bamboo

If clump bamboo plants are to attain maximum size, it is necessary to set them far enough apart. The distance between plants for specimen clumps should be at least one-half the height that the plants are expected to reach when mature. For example: If the species grows 10 feet tall, set the plants at least 5 feet apart. If the species grows 45 feet tall, set the plants at least 22 feet apart.

Spacing for plants in a hedge varies with the desired height of the hedge. Follow this guide:

Desired height of hedge (feet)	Space between plants (inches)
Less than 3.....	4 to 6
3 to 10.....	6 to 12
10 to 20.....	12 to 24

For low hedges—less than 10 feet tall—choose a bamboo variety that has a potential height of 20 feet or

less. For taller hedges, choose a variety that has a potential height somewhat greater than the desired height of the hedge.

Dig holes for individual plantings, and a trench for hedge plantings. Make the hole or trench about 5 inches deep.

Set the plant in the hole or trench and fill the hole with loose soil. Apply lawn fertilizer—analysis 8-6-4 or 10-6-4—at a rate of about 2½ pounds per 100 square feet. Water the new planting until the soil is thoroughly soaked.

## Running Bamboo

For starting a hedge with rhizome cuttings, dig a trench 12 inches deep and 18 inches wide. Use cuttings that are 12 inches long. Stand them upright about 6 inches apart along the sides of the trench.

For starting a hedge with 1- to 2-year-old plants, dig a trench 18 inches wide and 6 inches deep. Set

the plants 18 inches apart in the trench. Set them alternately, first on one side of the trench, then on the other. Aline the rhizomes with the sides of the trench.

For specimen plantings, use started plants. Set them in planting holes at least 6 inches deep.

After the plants or rhizome cuttings are in place, fill the hole or trench. Press soil firmly around the rhizomes and canes. Apply fertilizer at the same rate as for clump bamboo and water the new planting thoroughly.

## CARE AFTER PLANTING

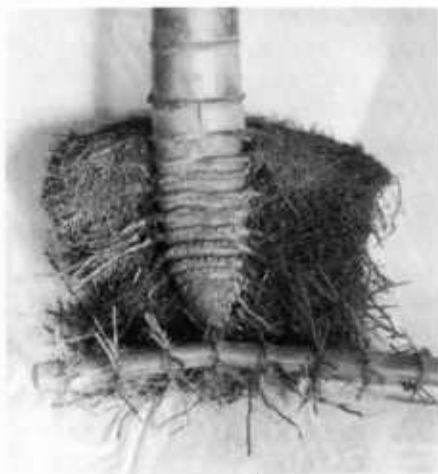
Protect bamboo from drought. Bamboo needs at least 1 inch of water every 10 days. To insure that the plants have enough water, soak the soil thoroughly around the base of the canes every 10 days from spring to late fall. Omit watering for 10 days after heavy or prolonged rains.

Pull weeds and grass from around the plants. Do not use cultivating tools to work around bamboo; the rhizomes often grow close to the surface and may be injured by deep cultivation.

Apply lawn fertilizer to the planting every spring. Use about 2½ pounds per 100 square feet.

Mulch the soil around the planting. Mulches add organic matter to the soil, help to restrict the growth of weeds, and conserve soil moisture. Dead leaves or dry grass clippings can be used for mulch. Apply a layer of mulching material at least 3 inches deep.

Prune hedges once or twice a year. Let the canes grow to nearly their full



PN-979

Cane of a running bamboo growing from the rhizome. New canes may arise 15 feet or more from the old canes.



PN-985

Planting of Narihira bamboo. This species spreads more slowly than most other running bamboos.

height, then cut them back to the desired height. Cut the canes an inch or two above a joint. Make a slanting cut in the cane, rather than a right-angle cut.

## PROPAGATION

Clump bamboo is most easily propagated by division. In spring, cut the canes back to a height of 2 feet or less and dig up the entire plant. Separate the clump into divisions that contain one or more canes with their rooty base.

Slender-caned clumps can be divided with a sharp knife or with pruning shears. Heavy-caned clumps may have to be sawed or chopped apart. After dividing the clump, replant the divisions.

Propagate running bamboos from rhizome cuttings. Dig around young

plants to find the rhizomes. Cut sections 12 to 14 inches long from the ends of the rhizomes. Do not cut sections from old rhizomes; these rarely sprout.

Do not let the cuttings dry. If you cannot plant them as soon as they are collected, store them in damp sawdust or sphagnum moss.

Soil for the nursery bed should be fertile and well drained. As soon as the bed can be worked in spring, dig furrows 6 inches deep and 3 feet apart.

Plant the cuttings as soon as possible after the nursery bed is prepared. Place the cuttings end to end in the furrows and cover them with loose soil. Water thoroughly.

The new plants can be moved after they have grown in the nursery for a year. If they are to be shipped, however, let them grow 2 years.

Before transplanting or shipping, cut the plants back to no more than one-third of their original height.



PN-987

Planting of arrow bamboo. The planting has been kept in bounds by frequent mowing, which destroyed unwanted canes.

## CONTROLLING RUNNING BAMBOO

**Running bamboo spreads rapidly. Its growth must be restricted or it will soon form a thick jungle that extends many feet beyond the original planting.**

A curb made of sheet metal, concrete, or asbestos board will prevent bamboo from spreading. The curb must surround the planting. The top of the curb should be about 1 inch above the soil surface, and the curb should extend 24 to 30 inches into the ground. Any joints in the curb must be lapped and secured tightly; bamboo rhizomes can force their way through very small openings.

Buildings, wide driveways, and roads also restrict the spread of bamboo. If the bamboo is planted in a turf area, mowing will destroy unwanted canes by cutting them while they are still small and soft.

Unless the planting is curbed, rhizomes of a running bamboo will spread beyond the edge of the grove

or patch a distance approximately equal to the height of the canes. If you plan to grow bamboo without curbs, be careful in choosing a planting site; protect yourself and your neighbor from unwanted bamboo in flower beds, hedges, and shrubbery plantings.

## ERADICATING BAMBOO

Clump bamboo is easy to eradicate. Dig up the entire plant and destroy it.

To eradicate an entire planting of running bamboo, cut down all the canes. Repeat the cutting when new canes that follow have reached their full height. A few small canes continue to appear after these two cuttings. Cut them all down and the rhizomes will soon die.

Very small species of bamboo may be more difficult to kill. The plants are grasslike and grow close to the ground; many shoots will escape cutting. To kill these small bamboos, dig up the rhizomes, which grow relatively close to the surface, and destroy them.

A more comprehensive discussion of this subject appears in Agriculture Handbook 193, "Bamboos in the United States," available from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., at 35 cents per copy.



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