



Establishing Giant Cane (*Arundinaria gigantea*)

How to establish giant cane stands in appropriate habitat

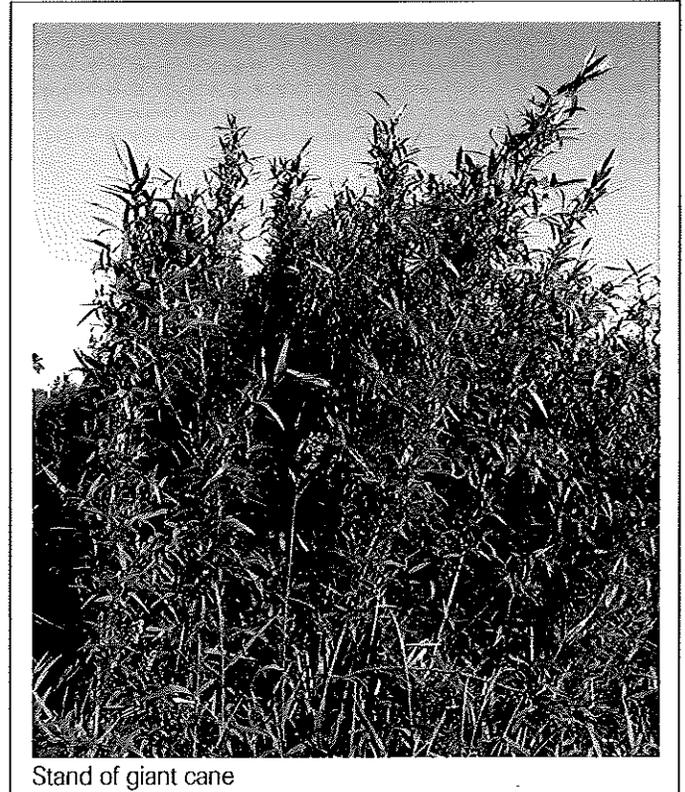
GIANT CANE IN INDIANA AND ILLINOIS

Giant cane (*Arundinaria gigantea*) is a species of bamboo native to southern Indiana and Illinois, as well as much of the lower Midwest and Southeast. It is generally found in riparian and floodplain areas, and once formed extensive stands called canebrakes.

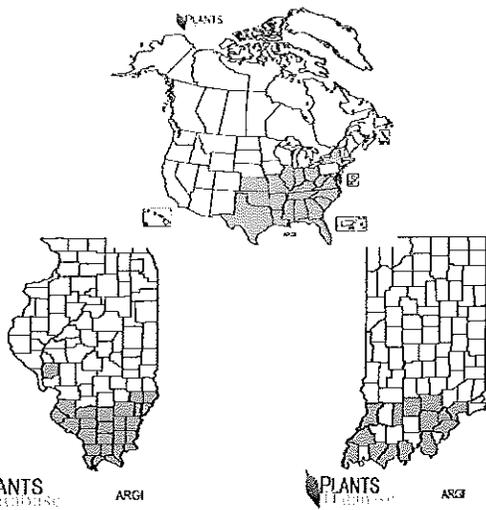
“The river valleys everywhere, beginning with the Ohio, and on southward, were covered with a luxurious growth of cane, the “brakes” extending for miles in every direction...The fertility of the land on which they grew destroyed them quickly...because the first white settlers were quick to realize that a flourishing canebrake was a sign of first-class farm land.” (John Bakeless, “The Wild Middle West”, in *The Eyes of Discovery*, 1950).

Due to conversion to agriculture, only small, remnant patches of cane remain in Indiana and Illinois.

Canebrakes are important habitat for many species, including swamp rabbits, Swainson’s warblers, and golden mice. Several species of rare moths and butterflies, including the Creole pearly-eye and the lacewinged roadside skipper, use cane exclusively as their larval host plant.



Stand of giant cane



Range of giant cane in United States, Illinois and Indiana

ESTABLISHING GIANT CANE

Site Considerations

Giant cane stands grow in well-drained alluvial soil; cane will not survive in sites that are too wet. Once established, cane will continue to spread and over time it may fill all available habitat. Planting sites should be carefully considered in terms of adjacent land use and the potential to impact neighbors.

Over time, trees will likely move into cane plantings. Cane stands will persist in the understory of forests, but will not be as vigorous as those in full sunlight. Prescribed fire or regular mowing would be necessary to keep trees from dominating cane plantings.

Plant Materials

There are relatively few sources of commercially sold native giant cane at this time, which has significantly limited cane restorations. The website bambooweb.info lists many bamboo dealers in the U.S., and some of them sell native giant cane. For more information on native giant cane vendors, contact Jesse Moore with the Indiana Chapter of The Nature Conservancy at jesse.moore@tnc.org.

If you are aware of existing native giant cane stands and can obtain permission to collect from that site, cane can be dug and replanted with reasonable success. Important things to address are 1) assuring that it is truly native cane, and not a non-native species of bamboo that had been planted in the area; 2) leaving enough native cane in the donor stand so it can recolonize the site; and 3) making sure that removal of the cane does not result in erosion, particularly important if the cane is on a steep bank.

Plants can be dug and transplanted in both spring and fall. Fall is generally preferred since a floodplain site is more likely to be dry enough to access with equipment, and fall rains will help the transplants establish.

It is important to get a healthy rhizome with at least 2-3 nodes with sprouts on it, and to wrap the rhizome and roots with burlap or plastic to keep the root balls from drying out before planting. The canes should be trimmed to 3' tall after digging the plants for ease in transport and transplanting, and to reduce transplant shock.

Smaller sections of bare rhizome stock can be dug and transplanted; while survivorship is lower, many more rhizome sections can be dug and transplanted for the same level of effort.



Site Preparation

It is easiest to plant cane into agricultural fields that have just come out of production. If that is the case, all that may be needed for site preparation is a light disking if the field had been in corn. If the field was previously in soybeans, no disking is needed.

If the planting site is a fallow field, the field should be broadcast sprayed at least once before planting with a broad spectrum herbicide to eliminate weed competition.

Planting the Cane

The density of cane plants for a given site should be determined by the size of the transplants and how quickly the landowner wants the cane to grow to fill an area. Cane plants reproduce primarily by spreading rhizomes, so within a few years transplants can double or triple in size.

For 1 gallon-sized transplants, 10' x 10' spacing is a reasonable density. For smaller transplants, tighter spacing is recommended. Using an auger to drill holes can make the transplanting much easier.

Maintenance of Cane

After planting, water is necessary to assure the plants survive the first few months. In a wet fall or spring, little or no watering may be needed; in dry conditions, watering once per week or when plants are wilting is suggested.

Weed maintenance may be important in the first season of establishment depending on weed pressure. Mowing between rows once or twice during the season, and/or broadcast spraying a broad spectrum herbicide between the rows may increase transplant success. However, note that cane rhizomes can send up new plants several feet away from the original plant and they can be difficult to see; care should be taken to avoid spraying or mowing new plants.

After the first season, the cane may no longer need maintenance. Once established and sending out rhizomes, it should be able to compete with weeds in the field. Eventually the transplant clumps will start to merge together into a canebrake.

REFERENCES

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