

Brevard County Parks and Recreation

QUOTE SUMMARY

Thursday, September 01, 2005

Invasive Brazilian Pepper -- Pine Island Conservation Area

Quantity _____

Specifications

Size: 9 x 11.5 includes ¼ " full bleed
 Printed Head to Head Front/Back, 2-fold, 3-panel Gate Fold
 Trim 8.5 x 11 -- Folded: 3.6875 x 8.5

Ink: 4-Color CMYK

Paper: 80 lb Text, Coated White

Details: Imaging from PC PageMaker 7.0 computer file or hi-res PDF on CD or FTP upload.
 Match print or accurate color proof required. Metal plates required.
 Film output must use same fonts & format as original file.

QTY: As specified below

Schedule: Turnaround from receipt of computer files: 10-14 working days

Billing Contact: Arlene King, Environmentally Endangered Lands Program - 321-255-4466
 Technical Contact: Jan McLarty, Parks and Recreation Dept - 321-633-2046

Comments

Pride Enterprises Quantity of 5000 provides the best value at .1384 cents per document
 Compared to Pride's Quantity of 1000 at .502 cents per document

Quantity:	1000	Rank	2500	Rank	5000	Rank		
Pride Enterprises - Calhoun Facility	\$502.00	1	Pride Enterprises - Calhoun Facility	\$577.00	1	Pride Enterprises - Calhoun Facility	\$692.00	1
Midlantic Data Systems	\$660.00	2	Midlantic Data Systems	\$772.00	2	Midlantic Data Systems	\$797.00	2
Digital Graphics Printing	\$704.00	3	Digital Graphics Printing	\$777.00	3	Digital Graphics Printing	\$883.00	3
Scott Printing & Mailing House Co.	\$850.00	4	Scott Printing & Mailing House Co.	\$980.00	4	Scott Printing & Mailing House Co.	\$1,210.00	4
All Service Graphics	\$958.00	5	All Service Graphics	\$1,053.00	5	All Service Graphics	\$1,213.00	5

Please select quantity, sign below to authorize approval of artwork and submission of order to vendor -- and fax this signed form to Parks and Recreation Media staff at 633-2198.

Authorizing Signature _____

Date _____



About
**PINE ISLAND
CONSERVATION
AREA**



**PINE ISLAND
CONSERVATION AREA**

**INVASIVE
BRAZILIAN
PEPPER**

at Pine Island
Conservation Area

Adjoining the Merrit Island National Wildlife Refuge to the north, the 879-acre conservation area is jointly owned by the Brevard County Environmentally Endangered Lands Program and the St. Johns River Water Management District. Acquired to buffer the Indian River Lagoon from development impacts along two-miles of shoreline, the conservation area also offers protection that reduces habitat fragmentation, provides regional storm water treatment in the on-site borrow lakes, and provides passive recreation and environmental education opportunities. Primary ecosystem management activities on the site are hydrological restoration, storm water enhancement, prescribed burning, and removal of invasive exotic species.

The invasive Brazilian Pepper is being treated on 500 acres of the Pine Island Conservation Area (PICA) in cooperation with the Florida Department of Environmental Protection, Bureau of Invasive Plant Management.



Treated Brazilian Pepper at Pine Island Conservation Area

Phone: 321-255-4466
Fax: 321-255-4499
Email: pineisland@brevardparks.com



The Environmentally Endangered Lands Program's mission is to protect and preserve biological diversity through responsible stewardship of Brevard County's natural resources.

www.eelbrevard.com
Brevard County Parks & Recreation • Florida

How to Identify Brazilian Pepper

Schinus terebinthifolius, also known by its common name Brazilian Pepper, is an evergreen shrub or tree that can grow up to 40 feet tall with dense branching and foliage. Shiny compound leaves (leaves divided into several leaflets attached to a central stalk) usually have 5 or 7 leaflets, which may or may not have teeth. They are 1-2" long and smell of turpentine when crushed. Female plants have numerous small green berries that become glossy red in bunches near the ends of branches. All plant parts can cause a rash in some people similar to poison ivy, so be sure to handle with care.



Compound leaf with 7 leaflets



Red berries and pepper seedlings

Geographic Range

Brazilian pepper is indigenous to South American subtropical countries such as Brazil, Paraguay, and Argentina, but occurs naturally as far north as Mexico. It has been introduced to a variety of other subtropical areas around the world from the Caribbean Islands to the Mediterranean, China, and Australia. It was also introduced as an ornamental plant to the United States in California, Hawaii, and Florida in the 1840's. It now covers over 700,000 acres in southern Florida alone. The state of Florida considers pepper an invasive, exotic species. It invades a habitat (usually a disturbed area due to construction, hurricane, etc.), and then limits the growth of native species by out-competing them for sunlight and nutrients. Pepper can thrive in disturbed areas and spread into adjacent habitats. Once established, pepper is hard to eliminate as reproduction is rapid.



Control of the Invasive Pepper

There are several methods for Brazilian pepper removal. The most common way to kill these trees is to treat them with herbicides such as Garlon 4-A using the "basal bark" method. With this technique, the base of the pepper is cut and herbicide is applied around this base and in the cut areas. The only draw-back to using this method is that it cannot be used when the trees are in standing water. In wetland areas the "cut stump" method is preferred. Here, the tree is cut as close to the ground as

possible and the herbicide applied within 5 minutes of cutting it down. This will kill the tree. However, in some cases the tree will sprout new branches and require a second treatment. Although Garlon is available only to licensed herbicide contractors and governmental agencies, other herbicides such as Round-up Pro are just as effective and are available to the public. For more answers to questions about treatment and removal, visit: www.eelbrevard.com/eel/pineisland/herbicide.pdf



Treated/dead Brazilian pepper

Funding For Pepper Control at Pine Island Conservation Area

The Environmentally Endangered Lands (EEL) Program has received funding from the Florida Department of Environmental Protection, Bureau of Invasive Plant Management to control pepper at PICA. Since 2000, the EEL Program has received over \$500,000 in funding to treat nearly 500 acres of pepper. These funds were used to hire contractors specializing in exotic plant control. By the end of 2006, the entire site will have been treated, but the battle will not end there; invasive plants such as Brazilian pepper will require ongoing treatment and monitoring to prevent widespread re-establishment at PICA.