



***Plant Risk Evaluator -- PRETM
Evaluation Report***

Lagerstroemia indica 'Natchez' -- Georgia

2017 Farm Bill PRE Project

PRE Score: 10 -- Accept (low risk of invasiveness)

Confidence: 64 / 100

Questions answered: 19 of 20 -- Valid (80% or more questions answered)

Privacy: Public

Status: Completed

Evaluation Date: November 25, 2017

This PDF was created on August 13, 2018



Plant Evaluated

Lagerstroemia indica 'Natchez'



Image by Garden Goods



Evaluation Overview

A PRE™ screener conducted a literature review for this plant (*Lagerstroemia indica* 'Natchez') in an effort to understand the invasive history, reproductive strategies, and the impact, if any, on the region's native plants and animals. This research reflects the data available at the time this evaluation was conducted.

General Information

Status: Completed

Screener: Lila Uzzell

Evaluation Date: November 25, 2017

Plant Information

Plant: *Lagerstroemia indica* 'Natchez'

If the plant is a cultivar, how does its behavior differs from its parent's?

From the U.S. National Arboretum: "'Natchez' is one of the first hybrid crapemyrtles derived from controlled hybridization of *L. fauriei* and a cultivar of *L. indica*. It represents a major breakthrough in the battle to introduce powdery mildew resistance into one of the South's most commonly planted summer-flowering shrubs. The bark exfoliates to reveal a dark cinnamon brown trunk coloration, an inherited trait from the *L. fauriei* parent."

Regional Information

Region Name: Georgia

Climate Matching Map

To answer four of the PRE questions for a regional evaluation, a climate map with three climate data layers (Precipitation, UN EcoZones, and Plant Hardiness) is needed. These maps were built using a toolkit created in collaboration with GreenInfo Network, USDA, PlantRight, California-Invasive Plant Council, and The Information Center for the Environment at UC Davis.

Click [here](#) to see the generated climate matching map for this region. This climate match database is hosted by GreenInfo Network and publicly accessible.





Evaluation Questions

These questions are based in an original article published at the University of California, Davis, and can be found on the PLOS One website, here: <https://doi.org/10.1371/journal.pone.0121053>

Invasive History and Climate Matching (Questions 1 - 6)

1. Has the species (or cultivar or variety, if applicable; applies to subsequent "species" questions) become naturalized where it is not native?

- Answer: **Yes**, which contributes **1** points to the total PRE score.
- The *screeener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

Parent species: "L. indica is a deciduous species widely commercial as an ornamental that has become naturalized and invasive in many tropical and subtropical regions of the world"

Reference(s):

- CABI (0). *Lagerstroemia indica* (Indian crape myrtle)- CABI.
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2. Is the species (or cultivar or variety) noted as being naturalized in the US or world in a similar climate?

- Answer: **Yes**, which contributes **2** points to the total PRE score.
- The *screeener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

This cultivar is best grown in zones 6-9. Its parent species, L. indica, is widespread across similar climate regions in the US, South America, Europe, Asia, and Australia. It appears that L. indica grows beyond similar climate regions in South America and in Africa.



Reference(s):

- Missouri Botanical Garden (0). Lagerstroemia 'Natchez' - Plant Finder.
 - CABI (0). Lagerstroemia indica (Indian crape myrtle)- CABI.
 - GBIF (0). Lagerstroemia indica L.- GBIF.
-

3. Is the species (or cultivar or variety) noted as being invasive in the U.S. or world?

- Answer: **Yes**, which contributes **2** points to the total PRE score.
- The *screeners* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

Parent species. L. indica is noted as being invasive in South Africa, Belize, Cuba, Puerto Rico and the Virgin Islands.

Reference(s):

- CABI (0). Lagerstroemia indica (Indian crape myrtle)- CABI.
-

4. Is the species (or cultivar or variety) noted as being invasive in the US or world in a similar climate?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeners* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

Parent Species. L. indica is noted as being invasive in South Africa, Belize, Cuba, Puerto Rico and the Virgin Islands. There is a chance it could be invasive in a similar climate in South Africa, but the specific region of invasiveness is not given.

Reference(s):

- CABI (0). Lagerstroemia indica (Indian crape myrtle)- CABI.



5. Are other species of the same genus (or closely related genera) invasive in a similar climate?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeener* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

Parent species. *Lagerstroemia indica* appears to be the only invasive crepe myrtle in its genus.

Reference(s):

- CABI (0). *Lagerstroemia indica* (Indian crape myrtle)- CABI.
 - Randall, R. Peter (2017). *A Global Compendium of Weeds*. Third Edition..
-

6. Is the species (or cultivar or variety) found predominately in a climate matching the region of concern?

- Answer: **Yes**, which contributes **2** points to the total PRE score.
- The *screeener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

Parent species. In the U.S. *L. indica* is found across the southeast, Texas, California, and in some northeastern states.

Reference(s):

- [Anonymous] .
-



Impact on Native Plants and Animals (Questions 7 - 10)

7. Does this plant displace native plants and dominate (overtop or smother) the plant community in areas where it has established?

- Answer: **Yes**, which contributes **1** points to the total PRE score.
- The *screeners* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

Parent species (*Lagerstroemia indica*): " It has a very aggressive and dense root system with the potential to outcompete native species for water and nutrients. Many cultivars resistant to drought, fire, and cold conditions have been created, increasing the potential of this species to colonize new habitats, displacing and smothering native vegetation"

Reference(s):

- CABI (0). *Lagerstroemia indica* (Indian crape myrtle)- CABI.
-

8. Is the plant noted as promoting fire and/or changing fire regimes?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeners* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

Lack of evidence.

Reference(s):

- [Anonymous] .
-



9. Is the plant a health risk to humans or animals/fish? Has the species been noted as impacting grazing systems?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeener* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

There is no evidence that this cultivar is harmful to humans or animals.

Reference(s):

- [Anonymous] .
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10. Does the plant produce impenetrable thickets, blocking or slowing movement of animals, livestock, or humans?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeener* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

There is no evidence of this.

Reference(s):

- [Anonymous] .
-

Reproductive Strategies (Questions 11 - 17)

11. Does this species (or cultivar or variety) reproduce and spread vegetatively?

- Answer: **Yes**, which contributes **1** points to the total PRE score.
- The *screeener* has a **High** confidence in this answer based on the available literature.



Answer / Justification:

Parent species: " Severe pruning or topping can stimulate basal sprouting which can become a constant nuisance, requiring regular removal. Some trees sprout from the base of the trunk and roots even without severe heading. This can be a maintenance nuisance."

Reference(s):

- Gilman, E. F., & Watson D. G. (1993). *Lagerstroemia indica* .
-

12. If naturally detached fragments from this plant are capable of producing new plants, is this a common method of reproduction for the plant?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeners* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

There is no evidence that this is a common method of reproduction.

Reference(s):

- [Anonymous] .
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13. Does the species (or cultivar or variety) commonly produce viable seed?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeners* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

According to one source, 'Natchez' does not produce viable seed. "Plant does not set seed, flowers are sterile, or plants will not come true from seed."



Reference(s):

- Dave's Garden (0). PlantFiles: Japanese Crepe Myrtle, Crape Myrtle.
-

14. Does this plant produce copious viable seeds each year (> 1000)?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeners* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

Lack of information. One source states that 'Natchez' "does not set seed, flowers are sterile, or plants will not come true from seed." There is little information given about the seed set of *L.indica*

Reference(s):

- CABI (0). *Lagerstroemia indica* (Indian crape myrtle)- CABI.
 - Dave's Garden (0). PlantFiles: Japanese Crepe Myrtle, Crape Myrtle.
-

15. Is there significant germination (>25%) of seeds the next growing season, with no requirement of an infrequent environmental condition for seeds to germinate (i.e. fire) or long dormancy period?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeners* has a **Low** confidence in this answer based on the available literature.

Answer / Justification:

lack of information.

Reference(s):

- [Anonymous] .
-



16. Does this plant produce viable seed within the first three years (for an herbaceous species) to five years (for a woody species) after germination?

Answer / Justification:

no information available.

Reference(s):

- [Anonymous] .
-

17. Does this plant continuously produce seed for >3 months each year or does seed production occur more than once a year?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeners* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

Dave's garden states that 'Natchez' "does not set seed, flowers are sterile, or plants will not come true from seed."

Reference(s):

- Dave's Garden (0). PlantFiles: Japanese Crepe Myrtle, Crape Myrtle.
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Dispersal (Questions 18 - 20)

18. Are the plant's propagules frequently dispersed long distance (>100 m) by mammals or birds or via domestic animals?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeners* has a **High** confidence in this answer based on the available literature.



Answer / Justification:

There is no evidence of this. Apparently 'Natchez' fruit "does not attract wildlife"

Reference(s):

- Gilman, E. F., & Watson D. G. (1993). Lagerstroemia x 'Natchez'.
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19. Are the plant's propagules frequently dispersed long distance (>100 m) by wind or water?

- Answer: **Yes**, which contributes **1** points to the total PRE score.
- The *screeener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

Parent species (Lagerstroemia indica): Seeds are winged and thus wind-dispersed.

Reference(s):

- CABI (0). Lagerstroemia indica (Indian crape myrtle)- CABI.
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20. Are the plant's propagules frequently dispersed via contaminated seed (agriculture or wildflower packets), equipment, vehicles, boats or clothing/shoes?

- Answer: **No**, which contributes **0** points to the total PRE score.
- The *screeener* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

there is no evidence of this.

Reference(s):

- [Anonymous] .



Total PRE Score

PRE Score: 10 -- Accept (low risk of invasiveness)

Confidence: 64 / 100

Questions answered: 19 of 20 -- Valid (80% or more questions answered)

PRE Score Legend

The PRE Score is calculated by adding the point totals for each (answered) question.

< 13 : accept (low risk of invasiveness)

13 - 15 : evaluate further

> 15 : reject (high risk of invasiveness)

Questions Answered Legend

It is important to answer at least 16 questions to consider a PRE Score as "valid".

>= 16 : valid (80% or more questions answered)

<= 15 : invalid (not enough questions answered)

Organization Ownership and Content Privacy

Organization: 2017 Farm Bill PRE Project

Content Privacy: Public



Evaluation Reviewers

The PRE approach is to base decisions on science and make decisions by consensus of diverse horticultural stakeholders. The literature review and process of answering PRE's questions are based on science; the decisions of which plants to prioritize are based on consensus. To ensure this process is in place and that PRE is collaborative, volunteer stakeholders are recruited from each region to review evaluations. The following experts in their profession (plant science, conservation, or horticultural trade) have participated as volunteer PRE reviewers for this evaluation:

- Shelly Matthew Prescott January 4, 2018
- Eamonn Leonard December 7, 2017

This evaluation has a total of 2 reviewer(s).



Evaluation Issues

The following section lists all public issues for this evaluation. Issues provide a way for stakeholder reviewers to communicate any concerns or suggestions they might have with the plant or evaluation. Please email PlantRight@suscon.org if additional action is required to resolve open issues.

There are currently no issues associated with this evaluation.



About PRE and this Plant Evaluation Report

The PlantRight Plant Risk Evaluator -- PRE is an online database and platform enabling those involved in non-native, terrestrial plant production to know before they grow if a plant poses a regional invasive risk. This tool offers many benefits, and we encourage you to visit the PRE website (<https://pre.ice.ucdavis.edu>) for more information.

If you are a nursery trade association, or involved in the research, development or distribution of horticultural plants we invite you to join the PRE community. If you are a plant scientist, affiliated with a horticultural college or botanic garden, and would like to learn more about becoming a PRE Screener, please drop us an email, PlantRight@suscon.org, requesting a PRE Account.

PRE beta funding is provided by Sustainable Conservation (<http://www.suscon.org/>) and a USDA Farm Bill grant.