



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

Miscanthus sinensis 'Scout' -- Georgia

2017 Farm Bill PRE Project

PRE Score: 8 -- Accept (low risk of invasiveness)

Confidence: 61 / 100

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

Privacy: Public

Status: Submitted

Evaluation Date: November 29, 2017

This PDF was created on July 12, 2018



Plant Evaluated

Miscanthus sinensis 'Scout'



Image by Emerald Coast Growers



Evaluation Overview

A PRE™ screener conducted a literature review for this plant (*Miscanthus sinensis* 'Scout') 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.

Summary

There is very little information on *M. sinensis* 'Scout'. All sources indicate that it only differs from *M. sinensis* in that it is an infertile variety. For this reason, the Reproductive Strategies and Dispersal sections of this evaluation resulted in a low overall point value for this plant variety. *M. sinensis* reproduces by rhizomes, which are a large factor in this species being invasive in the Southeastern United States. It can be assumed that Scout also reproduces by rhizomes, but there is not enough information on this variety to confirm this. It is unknown whether Scout is capable of naturalizing or becoming invasive in the Southern U.S. More information may need to be provided to properly evaluate Scout Maiden Grass.

General Information

Status: Submitted

Screener: Lila Uzzell

Evaluation Date: November 29, 2017

Plant Information

Plant: *Miscanthus sinensis* 'Scout'

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

Scout is an infertile variety from the University of Georgia.

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 **Medium** confidence in this answer based on the available literature.

Answer / Justification:

This cultivar grows well in zones 5-10. The parent species has become naturalized, and even invasive in some areas. It is possible that the cultivar can develop the same weedy characteristics, but there is no evidence that Scout has specifically "naturalized".

Reference(s):

- Swearingen, J., & Bargerin C. (2015). Chinese silvergrass: *Miscanthus sinensis* (Cyperales: Poaceae): Invasive Plant Atlas of the United States.
 - CABI (2017). *Miscanthus sinensis* (eulalia)- CABI.
 - Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
 - Emerald Coast Growers (2017). Scout Maiden Grass - (*Miscanthus sinensis* Scout).
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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 **Medium** confidence in this answer based on the available literature.



Answer / Justification:

This cultivar grows well in zones 5-10. The parent species has become naturalized, and even invasive in some areas. It is possible that the cultivar can develop the same weedy characteristics, but there is no evidence that Scout has specifically "naturalized". The parent species has naturalized across much of the Eastern United States, and is additionally found in Colorado and California.

Reference(s):

- Swearingen, J., & Bargerin C. (2015). Chinese silvergrass: *Miscanthus sinensis* (Cyperales: Poaceae): Invasive Plant Atlas of the United States.
 - CABI (2017). *Miscanthus sinensis* (eulalia)- CABI.
 - GBIF (0). *Miscanthus sinensis* GBIF.
 - Hawaiian Ecosystems at Risk (HEAR) project (2007). *Miscanthus sinensis* information from the Global Compendium of Weeds (GCW).
 - Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
 - Emerald Coast Growers (2017). Scout Maiden Grass - (*Miscanthus sinensis* Scout).
 - USDA, & NRCS (2017). The Plants Database.
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3. Is the species (or cultivar or variety) noted as being invasive in the U.S. or world?

- 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:

The parent species (*Miscanthus sinensis*) is invasive to several states in the souther US, and is also invasive to Connecticut and Pennsylvania. Though the cultivar may be capable of naturalizing in the US, I have answered "No" to the possibility of it becoming invasive since it is an infertile variety of *Miscanthus*.

Reference(s):

- Swearingen, J., & Bargerin C. (2015). Chinese silvergrass: *Miscanthus sinensis* (Cyperales: Poaceae): Invasive Plant Atlas of the United States.
- Hawaiian Ecosystems at Risk (HEAR) project (2007). *Miscanthus sinensis* information from the Global Compendium of Weeds (GCW).
- Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.



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 *screeener* has a **Medium** confidence in this answer based on the available literature.

Answer / Justification:

The parent species (*Miscanthus sinensis*) is invasive to several states in the souther US, and is also invasive to Connecticut and Pennsylvania. Though the cultivar may be capable of naturalizing in the US, I have answered "No" to the possibility of it becoming invasive since it is an infertile variety of *Miscanthus*.

Reference(s):

- Swearingen, J., & Bargerin C. (2015). Chinese silvergrass: *Miscanthus sinensis* (Cyperales: Poaceae): Invasive Plant Atlas of the United States.
 - GBIF (0). *Miscanthus sinensis* GBIF.
 - Hawaiian Ecosystems at Risk (HEAR) project (2007). *Miscanthus sinensis* information from the Global Compendium of Weeds (GCW).
 - Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
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5. Are other species of the same genus (or closely related genera) invasive in a similar climate?

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

Answer / Justification:

The parent species, *M. sinensis* is invasive in Georgia and several other states in a similar climate. Other *Miscanthus* species are mentioned in the Global Compendium of Weeds, but none appear to be invasive in a similar climate.



Reference(s):

- Swearingen, J., & Bargerin C. (2015). Chinese silvergrass: *Miscanthus sinensis* (Cyperales: Poaceae): Invasive Plant Atlas of the United States.
 - Hawaiian Ecosystems at Risk (HEAR) project (2007). *Miscanthus sinensis* information from the Global Compendium of Weeds (GCW).
 - Randall, R. Peter (2017). A Global Compendium of Weeds. Third Edition..
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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 **Medium** confidence in this answer based on the available literature.

Answer / Justification:

This cultivar grows well in zones 5-10. A distribution map of Scout is not available, but the parent species *M. sinensis* is found in several US states matching the region of concern, and is even invasive in Georgia.

Reference(s):

- USDA, & NRCS (2017). The Plants Database.
 - Swearingen, J., & Bargerin C. (2015). Chinese silvergrass: *Miscanthus sinensis* (Cyperales: Poaceae): Invasive Plant Atlas of the United States.
 - Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
 - Emerald Coast Growers (2017). Scout Maiden Grass - (*Miscanthus sinensis* Scout).
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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 *screeener* has a **Medium** confidence in this answer based on the available literature.



Answer / Justification:

Parent species: "Miscanthus sinensis escapes from ornamental plantings and can form large clumps along disturbed areas, displacing native vegetation." It is possible that Scout is capable of displacing native vegetation if rhizome spread occurs.

Reference(s):

- Swearingen, J., & Bargerin C. (2015). Chinese silvergrass: *Miscanthus sinensis* (Cyperales: Poaceae): Invasive Plant Atlas of the United States.
 - TexasInvasives.org (2017). Texas Invasives - *Miscanthus sinensis*.
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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 *screeener* has a **Low** confidence in this answer based on the available literature.

Answer / Justification:

Lack of evidence. *Note: parent species is "extremely flammable and increases fire risks of invaded areas."

Reference(s):

- Swearingen, J., & Bargerin C. (2015). Chinese silvergrass: *Miscanthus sinensis* (Cyperales: Poaceae): Invasive Plant Atlas of the United States.
-

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 **Low** confidence in this answer based on the available literature.



Answer / Justification:

Lack of information.

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 **Low** confidence in this answer based on the available literature.

Answer / Justification:

Lack of evidence, however it should be noted that parent species is highly invasive in some areas, and "creates dense thickets and forms extensive infestations that prevent the growth and germination of other plants. It rapidly colonises disturbed or open areas, and can invade large areas of bushland after fire, outcompeting all native species."

Reference(s):

- CABI (2017). *Miscanthus sinensis* (eulalia)- CABI.
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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 **Very Low** confidence in this answer based on the available literature.



Answer / Justification:

"Scout is an infertile variety from the University of Georgia." *Miscanthus sinensis* is capable of regenerating vegetatively through rhizomes, so it is possible that the cultivar 'Scout' can regenerate this way, but there is not enough information on this cultivar to know if it is capable of this. This question may not apply to this cultivar, and the confidence level is 'very low' since few sources are available for 'Scout'.

Reference(s):

- CABI (2017). *Miscanthus sinensis* (eulalia)- CABI.
 - Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
-

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 *screeener* has a **Very Low** confidence in this answer based on the available literature.

Answer / Justification:

There is not enough information to answer this question -- question defaults to no.

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 *screeener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

"Scout is an infertile variety from the University of Georgia."



Reference(s):

- Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
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14. Does this plant produce copious viable seeds each year (> 1000)?

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

Answer / Justification:

"Scout is an infertile variety from the University of Georgia."

Reference(s):

- Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
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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 *screeener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

"Scout is an infertile variety from the University of Georgia."

Reference(s):

- Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.



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: **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:

"Scout is an infertile variety from the University of Georgia."

Reference(s):

- Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
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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 **High** confidence in this answer based on the available literature.

Answer / Justification:

"Scout is an infertile variety from the University of Georgia."

Reference(s):

- Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
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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 *screeener* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

"Scout is an infertile variety from the University of Georgia."

Reference(s):

- Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
-

19. Are the plant's propagules frequently dispersed long distance (>100 m) by wind or water?

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

Answer / Justification:

"Scout is an infertile variety from the University of Georgia."

Reference(s):

- Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
-



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 *screeners* has a **High** confidence in this answer based on the available literature.

Answer / Justification:

"Scout is an infertile variety from the University of Georgia."

Reference(s):

- Prides Corner Farms (2017). *Miscanthus sinensis* Scout™ Scout Maiden Grass from Prides Corner Farms.
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Total PRE Score

PRE Score: 8 -- Accept (low risk of invasiveness)

Confidence: 61 / 100

Questions answered: 20 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:

- Eamonn Leonard

December 7, 2017

This evaluation has a total of 1 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.

Issue ID # 6179

Date Created: December 21, 2017 - 3:44am

Date Updated: February 21, 2018 - 10:25am

Submitted by: Professor Allan Armitage

Status: Fixed

Type: Comment

Severity: Minor

Scope: Evaluation as a whole

Issue Description

Well done.

In reading the evaluation of *M. sinensis* 'Scout', it is obvious that that the reviewer took into account that he/she was reviewing a cultivar and not the species. The "claim to fame" of this cultivar is its seed sterility. I agree with the rating provided.

This is a relatively new cultivar, but based on the reports and information from the breeder, I see no reason to consider 'Scout' invasive in Georgia. T

Issue Resolution (Screener's Response to Issue)

Thank you!



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.