

RESPONSE FORM – Intraspecific Taxon Protocol

Intraspecific Taxon: Lantana camara UF-1013A-2A
Resident Species: Lantana camara
Requestor Name and Affiliation: Zhanao Deng, Environ Hort., GCREC, UF
ITP Completed by: Deah Lieurance
Date ITP started: 8/8/2016 Date ITP completed: 8/8/2016

INSTRUCTIONS

*Either check appropriate response or enter it in the designated space.
Attach additional sheets with evidence as necessary using appropriate section numbers.*

SUMMARY OF ITP RESULTS

Use Status Assessment

- Resident Species
- List independently of resident species
- Compare conclusions to resident species and use the most precautionary conclusions from the two assessments

Use Predictive Tool

Intraspecific Taxon Conclusions

North: Not a problem intraspecific taxon; may be recommended

Central: Not a problem intraspecific taxon; may be recommended

South: Not a problem intraspecific taxon; may be recommended

Resident Species Conclusions (from Status Assessment)

North: Invasive, not recommended

Central: Invasive, not recommended

South: Invasive, not recommended

Note1: If the intraspecific taxon cannot be distinguished in the field from the resident species but it escapes and turns out to be more invasive than the resident species, it is assumed that the Conclusions for the resident species will become more precautionary over time as invasions of the intraspecific taxon are documented as new sites and impacts of the resident species. Because they must match those of the resident species, the Conclusions for the intraspecific taxon will also become more precautionary.

Note2: If the Conclusion is “Use of a predictive tool is recommended” then apply the predictive tool separately to the intraspecific taxon if possible. However, if this is not possible, apply the outcome of the predictive tool from the resident species to the intraspecific taxon.

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Section 1

(Only applies to intraspecific taxa that **can** be distinguished in the field from the resident species.)

1.1. Will botanists / field personnel typically be able to easily distinguish the intraspecific taxon from the resident species or other intraspecific taxa? If no experts are given by requestor, select NO.

YES *Provide information below*, then **Go to question 1.2**

NO **Go to question 1.3**

Comments: Although the requestor has supplied contact information and supporting evidence that states this cultivar can be easily distinguished from the resident species and other intraspecific taxa, we presume that a land steward (e.g. field personnel/land manager) would have difficulty distinguishing this cultivar from other cultivars in the field with similar characteristics. This would be especially difficult when the plants are not flowering.

1.2. Is there evidence that the intraspecific taxon is likely to regress, revert, or produce hybrids that would revert to the characteristics of the resident species? (If there is no evidence, the answer is NO.)

YES *Provide information below; Use the Status Assessment and so indicate on Page 1.* For each zone, compare these conclusions to those of the resident species and use the most precautionary conclusions from these two assessments for the intraspecific taxon.

NO **Use the Status Assessment** and select **List independently of the resident Species on Page 1.**

Comments: _____

1.3. Has the resident species been assessed?

YES **Go to question 1.4**

NO Evaluate the resident species with the **Status Assessment** and indicate so on Page 1, then **Go to question 1.4**

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1.4. Is the conclusion for the previously assessed, resident species “*Not a problem species; may be recommended*” or “*Use of a predictive tool is recommended*” for all three zones?

- YES **Go to question 1.5**
- NO **Go to Section 2, question 2.1**

1.5. Has the intraspecific taxon been in Florida (or in the U.S. if Florida data are not available) for > 10 years for herbaceous species or > 20 years for woody plants (if there is no evidence, then the answer is NO)?

- YES *Highlight attached distribution records that show presence in Florida before 10 or 20 years ago and enter a conclusion for intraspecific taxon on Page 1 of same per zone as the resident species*
- NO **Go to question 1.6**

1.6. Are there *obvious* characteristics of the intraspecific taxon that make it likely to spread more quickly or have worse ecological impacts than the resident species?

- YES *Provide evidence below; Use Predictive Tool and indicate so on Page 1*

Examples for a YES answer include:

- Intraspecific taxon produces many more fruit/viable seeds than resident species.
- Intraspecific taxon hybridizes with Federal or Florida-listed Species of Special Concern, Threatened or Endangered plants or commercially-important species.
- Intraspecific taxon has been documented to be a problem elsewhere but the resident species has not been.

- NO *Enter a conclusion for intraspecific taxon on Page 1 of same per zone as the resident species*

Comments: _____

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Section 2

(Only applies to intraspecific taxa that **cannot** be distinguished in the field from the resident species and for which the previously assessed resident species has a conclusion of “*Caution; manage to prevent escape*” or “*Invasive; not recommended*” for at least one zone).

2.1. Is there evidence that the intraspecific taxon is likely to regress, revert, or produce hybrids that would revert to the characteristics of the resident species (if there is no evidence, the answer is NO)?

YES *Provide evidence below, enter a conclusion for intraspecific taxon on Page 1 of same per zone as the resident species*

NO **Go to question 2.2**

Comments: This is a triploid cultivar and has high levels of male and female sterility (>85% reduction in pollen stainability) These new triploid cultivars did not cause fruit set or produce viable progeny when used as a male or female parent in hand-pollination with L. depressa. Fruit production of these triploids has been reduced by greater 99% and typically they did not produce viable seeds. The male and female sterility was stable when evaluated in Balm and Ft. Pierce.

2.2. Is there evidence that the combined characteristics that differ between the intraspecific taxon and the resident species will result in such decreased dispersal and spread compared to the resident species that the intraspecific taxon would be unlikely to become abundant in natural areas? Consider seed or vegetative propagules, spores, vegetative growth, etc. and the mechanism(s) by which the resident species has likely spread (including landscape waste material).

YES *Provide evidence below then **Go to question 2.3***

NO **Go to question 2.4**

Comments: UF-1013A-2A displays moderate vigor, mounding growth habit, round form. Extremely low or no fruit set and plants produce pollen that are misshaped, aborted; much fewer pollen grains; the great majority of pollen grains do not stain or stain very lightly.

The resident taxa is a vigorous shrub that can grow up to 2-4m in height and produce abundant amounts of fruit year-round with adequate environmental conditions.

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2.3. Is the primary negative ecological impact of the resident species linked to pollen-caused hybridization with natives or commercially important species, or another characteristic (e.g., host of pest/pathogen) that allows negative impacts in natural areas despite no or low spread and this characteristic is present in the intraspecific taxon?

- YES **Go to Section 3, question 3.1**
- NO *Provide evidence below then enter a conclusion of* **“Not a problem intraspecific taxon; may be recommended”**

Comments (If NO, provide evidence by listing the characteristics identified in questions 2.2 and 2.3):

UF-1013A-2A produces essentially no fruit on seed heads and aborted/misshapened pollen grains.
Fruit production of these triploids has been reduced by greater than 99% and typically they
did not produce viable seeds. Conversely, the resident species produces abundant fruit year-round (when
environmental conditions are adequate), are dispersed by birds with a germination rate approximating 64%.
The resident Lantana camara is highly male fertile and can hybridize with native L. depressa.

2.4. Is there evidence that the combined characteristics that differ between the intraspecific taxon and the resident species will result in such decreased ecological impacts compared to the resident species that the intraspecific taxon would be unlikely to have negative ecological impacts in natural areas in any zones? If there is insufficient information about which traits in the resident species cause ecological impacts (see the IFAS Assessment of ecological impacts for the resident species), then answer NO.

- YES *Provide evidence below, then enter a conclusion of* **“Caution; may be recommended but manage to prevent escape”**
- NO **Go to Section 3, question 3.1**

Comments: _____

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Section 3

3.1. Does the intraspecific taxon have any characteristics that would shift its response per zone (e.g., changed tolerance to temperature)?

- YES *Provide evidence below then **Go to question 3.2***
- NO *Enter a conclusion for intraspecific taxon on Page 1 of **same per zone as the resident species***

Comments: _____

3.2. Does the shift in response per zone make the intraspecific taxon more likely to survive and cause ecological impacts in zones in which the resident species does not survive?

- YES Evaluate in which additional zones the intraspecific taxon would be able to survive compared to the resident species. For these zones, **give the intraspecific taxon the most precautionary conclusion that was assigned to any zone of the resident species.** For all other zones, the **conclusions for the intraspecific taxon must be the same as for the resident species.**
- NO Evaluate in which zones the intraspecific taxon would not be able to survive compared to the resident species. For those zones, the conclusion can be **“Caution; manage to prevent escape”.** For all other zones, the **conclusions for the intraspecific taxon must be the same as for the resident species.**

COMMENTS