

Chinese Tallow Tree Control Efforts in the Mobile-Tensaw Delta





What's Wrong with the Tallow Tree?

- Rumored to have been introduced by Benjamin Franklin, should have focused more on electricity, bifocals and the odometer.
- Reduces biodiversity in native natural communities.
- Aggressively out-competes native plants.
- Significantly impacts commercial forestlands.
- Degrades habitats of various wildlife species.
- Prolific seed producer, and easily disperses in the Mobile-Tensaw Delta by its floating seeds.
- They are an exotic species and should not be here.

Treatment Date – October 15, 2010
Mobile-Tensaw Delta, West Bank Middle River
300 Acres



Treatment Site

Primary Site

Secondary Site

Herbicide Specifications-
Clearcast Herbicide (BASF)
Rate 64 oz. / acre
20 GPA
1 quart MSO / acre
Applied via aerial application
(helo)

<http://www.teleatlas.com>
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Streaming |||||, 99%

Pointer 30°59'10.01" N 87°57'21.63" W

Eye alt 24723 ft

Why Clearcast?

- Research conducted by Dr. Dearl Sanders with Louisiana State University and Jack Whetsone of Clemson University has illustrated that Clearcast herbicide has proved effective in the selective control of Chinese Tallow Tree.
- Many desirable species exhibit a strong tolerance to Clearcast.

Test Plots Established

Pre-Treatment

- 15 meter circle
- Total count of tallow trees



Some plots described seedlings as
“abundant”



Pre-Treatment

Interior forest opening





Treatment Day – October 15, 2010





Abundant Black Willow mortality on riverbank



Post-Treatment 2012
Black Willow

Post-Treatment 2011



Post-Treatment 2011

Dominant Species Impacted

- Chinese Tallow Tree except in one plot on edge of riverbank
- Black Willow
- Green Ash
- Sycamore
- Sweetgum
- River Birch
- *Celtis sp.*

Recovered Species

- Sycamore
- Marginal Green Ash
- Sweetgum
- River Birch
- *Celtis Sp.*

Post-Treatment 2011



Post-Treatment 2011

Flood Pulses in the Mobile-Tensaw
Delta generally occur November - April



Post-Treatment 2013

Location of Pin #1







Pre-Treatment

Post-Treatment 2011

Continued Residual Effects of Tallow Tree



Post-Treatment 2013

Continued Residual Effects of Tallow Tree



Post-Treatment 2013

Extensive Vine Growth

Trumpet Creeper

Crossvine





Post-Treatment 2013



Cottonwoods re-colonizing historic black willow riverbank

Post-Treatment 2013

Former Tallow Tree Grove



Post-Treatment 2011 – Riverbank

Post-Treatment 2013 – Interior Forest



Forest Opening
Post Treatment

Post-Treatment 2013

Other Project Activities-

-Continued efforts to utilize volunteer team efforts and by State personnel to perform hack and squirt operations in the Mobile-Tensaw Delta.



Project Afterthoughts

- Clearcast proved effective in controlling Chinese Tallow Tree in a large-landscape treatment.
- Few negative impacts to desirable species was negligible, unless you're a willow tree.
- A secondary aerial application or ground team applicators the following growing season appears to be required for effective control. Seed source, abundance of seeds and their viability is the problem without an answer.