



Tallowtrees are "Popping" Up Everywhere!

*By Dana McReynolds, Forest Health Coordinator,
Alabama Forestry Commission*

Recently, I received a phone call from a concerned landowner in Elmore County citing a sudden increase in the number of tallowtrees in the area. The landowner was not sure if the trees were regenerating at a rapid pace, or if homeowners were planting them in their yard. Whatever the case may be, the discussion continued with the emphasis that everywhere one looked, there seemed to be tallowtrees, more commonly known as "popcorn trees."

At the end of our conversation, I recalled a current news release from the USDA Forest Service specifically reviewing this ecological phenomenon: "Invasive Tallowtree Spreading Rapidly Across Gulf Coast." So from this report, concerns from landowners, and visual evidence, I came to the realization that we DO see tallowtrees – everywhere!

Another import from Asia, tallowtree (*Triadica sebifera*) was first introduced into South Carolina in the 1700s and again into the Gulf Coast area in the early 1900s. A rather aesthetically pleasing tree with its distinctively heart-shaped leaves, this species was mainly planted for the production of seed oil. Like many non-native, invasive plants, tallowtree escaped cultivation and inhabited wetlands and uplands throughout the South, from east Texas to North Carolina. This shade-tolerant, flood-tolerant, deciduous tree has invaded stream banks, riverbanks, and wet areas, but has also established infestations on upland sites.

Quite adaptable to freshwater and saline soils, tallowtree continues to spread in low areas and flat lands, riparian zones and rights-of-way, harvested sites and disturbed properties, as well as young stands and private forests. With its allelopathic character-



16-year period. Sonja Oswalt, a research forester with the Forest Inventory and Analysis (FIA) program in Knoxville stated, "...between 1991 and 2005, the number of tallowtree plants in Louisiana increased by more than 500 percent." Moreover, from 1994 to 2006, the number of tallowtree plants increased by 445 percent in Mississippi. In east Texas, the number increased by 174 percent between 1992 and 2007. Data for Alabama is not specifically given, but there is also a significant increase in the presence of tallowtree in this state.

The exact cause of the escalated occupation of tallowtree is somewhat unclear. A common explanation for the spread is that regeneration occurs from unsuspecting homeowners planting this exotic as an ornamental. An indirect influence on tallowtree occupation can be from animal damage, wind storms, timber harvesting, and fire occurrence. Animals and wind can move viable seed to other suitable habitats and start a new infestation. Timber harvesting and wildfires can gravely disturb the site, making it more compatible for tallowtree regeneration.

Not only will tallowtrees spread at a rapid rate, ecologists predict that these trees may occupy areas of the country that were assumed not possible. It was previously thought that the mean minimum temperatures in winter inhibited tallowtrees from migrating northward, but this assumption may be wrong. Because of the warming climate trend, the increase in both range and severity of tallowtree invasion can reach farther north beyond the predicted boundary.

The rapid spread and existence of tallowtree in Alabama's forest and non-forest ecosystems can not be easily rectified. Even though there are herbicides that are used to control this non-native, invasive plant, it is still moderately difficult to curb. Landowners can do their part in slowing down the spread by not purchasing and planting this tree. They can even try to eradicate existing tallowtrees from their property, especially if they work with a consulting forester on a prevention and control method.

Natural resource specialists can also aid in deterring the spread of tallowtrees by implementing monitoring and mitigating efforts on known congruous sites. If all of these combined efforts were executed consistently and continuously, there may be a sudden decrease in the spread of tallowtrees. 🙏

istic [a biological phenomenon whereby one plant species has the ability to suppress growth of another by the release of toxic substances], this exotic tree can change the chemical properties of soil and thus alter the composition and structure of native plant communities. This unique feature can also modify the flora and fauna along the Gulf Coast. Even the litter from this exotic tree in wet areas can affect some amphibian species. Wherever tallowtree expansion exists, forests and non-forests can gradually shift to an unhealthy, semi-functional ecosystem.

Establishing the fact that tallowtrees are everywhere, to what extent is this exotic plant spreading? According to a study by the USDA Forest Service Southern Research Station in Knoxville, Tennessee, the population growth of tallowtree in Louisiana, Mississippi, and east Texas averaged about 370 percent over a

References

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