

# Chinaberry: A Threat to Texas Forests

## Eleventh of the “Dirty Dozen”

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Editor’s Note: An introductory article discussing exotic invasive pests that could threaten forest resources in Texas was included in the June 2005 issue of *Texas Forestry*. As a follow-up to that article, a series of 12 short articles about specific exotic pests that are either present in Texas or are at our doorstep is planned. The authors (Joe Pase, Ron Billings, and Kim Camilli) are calling this series the “Dirty Dozen.” Last month, Joe described Formosan termite, the tenth pest in the series. Chinaberry tree is the eleventh article in the series and the eighth invasive plant to be presented.

Chinaberry, *Melia azedarach*, is a very drought tolerant tree that provides shade, beautiful lavender flowers in the spring (photo 1), and brilliant yellow foliage in the fall. But, looks can be deceiving. The berries produced by this tree (photo 2), as well as the leaves, bark and flowers are toxic to livestock, humans and pets.

Chinaberry was introduced from Asia into the American southwest and Mexico in the mid-1800s. This tree was prized for its ability to grow in the worst soil conditions and provide shade for those that lived in these arid regions. Not only was this tree used for shade and beauty, the berries of Chinaberry when mashed and added to water produce soap for cleaning dirty clothes. Accordingly, Chinaberry was known to settlers and Mexicans as the “soap tree.” Also, extracts from Chinaberry have been used as natural pesticides.

Though the uses of Chinaberry are many, they do not outweigh the negative impacts produced by this invasive species. Chinaberry has very few diseases, grows at an extremely fast rate (5-10 feet each year for the first 2 years!) and can grow in almost any soil condition. These characteristics allow this tree to out compete the native vegetation. The seeds are spread by birds which do not seem to be affected by the toxic properties of the berries. Chinaberry is commonly found along roadsides and at forest margins, as well as around old homesteads. This plant also spreads by root sprouts or sprouts from the root collars forming dense thickets which out compete native vegetation.

Chinaberry is a deciduous tree that grows to a height of 50 feet and up to 2 feet in diameter. The lacy, dark-green leaves are alternately whorled, 1 to 2 feet long and 9 to 16 inches wide. The leaves are made up of multiple tapered leaflets each 1 to 3 inches long. Chinaberry trees can be most easily recognized in the landscape in the winter, due to the abundant round, yellow fruits that cling to the branches after the foliage has dropped (photo 3).

Stem injections using Arsenal AC, Pathway, Pathfinder II or Garlon 3A in dilutions according to the label are recommended to control Chinaberry trees. Or these can be applied to freshly-cut stumps. For controlling saplings apply Garlon 4 as a 20% solution with basal oil, diesel fuel, or kerosene with a penetrant and use as a basal spray to young bark. Sprouts and seedlings of Chinaberry can be controlled by thoroughly

wetting all leaves with Garlon 3A or Garlon 4 as a 2% solution, or Arsenal AC as a 1% solution mixed in water with a surfactant. Since Arsenal AC and Pathway are nonselective herbicides, they will affect all green vegetation in the area. Always read the entire pesticide label carefully before applying these chemicals to vegetation.

Natural Resource Conservation Service (NRCS) records document Chinaberry from 35 counties, primarily in the central and southern parts of the state. The Forest Inventory Analysis, conducted in East Texas in 2003, recorded Chinaberry in 23 other counties not previously identified by the NRCS. In response to a 2005 Texas Forest Service (TFS) questionnaire on invasive plants, managers of natural areas and TFS foresters reported Chinaberry in an additional 47 counties (see map).

If you find Chinaberry growing wild in Texas within a county not shown on the map, please report its location to Joe Pase, TFS pest management specialist in Lufkin, so that a more comprehensive distribution map of this invasive plant can be documented. Joe can be reached by phone at 936-639-8170 or by e-mail at [jpase@tfs.tamu.edu](mailto:jpase@tfs.tamu.edu). New locations, once verified, will be added to the distribution map on the new invasive web site being developed by TFS and other partners at [www.texasinvasives.org](http://www.texasinvasives.org).

Photograph 1: Close up of flowers produced by Chinaberry, Chris Evans, University of Georgia.



Photograph 2: Close up of Chinaberry berries,  
Cheryl McCormick-Rote, The University of Florida.



Photograph 3: Chinaberries clinging to branches during the winter,  
Ron Billings, Texas Forest Service.



Shaded counties show Chinaberry locations.

