



EXOTIC INVASIVE SPECIES, US VIRGIN ISLANDS

Tan-Tan (*Leucaena leucocephala*)

Pasture Pests

Pasture pests are plants that thrive under the extremely challenging environmental conditions in both active and abandoned pastures. Full sun, extreme temperature, prolonged drought, compacted soil and grazing by large mammals are just some of the challenges pastures present that few native plants are adapted to handle. In fertile soil with ample water, pasture pests are usually outcompeted by surrounding vegetation, but they dominate under harsh conditions

Description

Leucaena leucocephala is known in the Virgin Islands as tan-tan or guinea tamarind. Native to Central America, it is an erect woody plant that grows as a shrub or tree. It tends to have a single central trunk, without major side branching. In the Virgin Islands it usually reaches between 15-20 feet tall. The large leaves are twice compound, with small leaflets. It produces white flowers year round in dense, round 'heads' or balls. These result in large quantities of seed which begin in soft, green, flat pods but turn brown and peel open at maturity, releasing 15-30 hard, flat brown seeds.



Historical Introduction

Tan-tan was intentionally introduced throughout the tropical world to improve pasture forage, especially in the seasonally dry tropics. Many agricultural varieties have been developed. The Virgin Islands has the most common type, from coastal Mexico. In pastures, the fast-growing, deep-rooted legume is re-

sistant to prolonged drought, light fires and high stocking densities. The forage is high in protein and all parts of the plant are consumed.

Ecological Threat

Tan tan harms the local environment by displacing native vegetation. The US Forest Service found tan tan to be the single most common plant in the US Virgin islands. A stand of tan tan often has few other species interspersed within it and provides low quality wildlife habitat, largely because the flower and fruit are not food for wildlife.

Preferred Habitat

Tan tan is an exotic invasive plant closely linked with the land use history of an area. The fast growing pioneer thrives in freshly disturbed sites that have been cleared of vegetation. Tan tan seeds can persist in the soil for years, germinating when conditions are right. It thrives in agricultural areas, pastures, riparian zones, disturbed forests and wetlands. Roadsides, fence lines, dry forests and disturbed areas are also readily colonized. Importantly, tan tan is not tolerant of shade and does not invade healthy forests. A true pioneer, it needs a disturbance to become established.

Dispersal

Seeds are produced from an early age and in massive quantities. Seed pods dry and release the seeds by gravity to the soil where they can remain viable for years. Many people believe that hurricane winds move the

Bean Family Fabaceae

Native Range Central America



seeds, but there is no published proof that this occurs.

Management Options

Virgin Islanders have several control options, depending on the size of the area to be treated. Individual trees can be pulled out with a root puller tool. Stems can be chopped to ground level and treated with a few drops of concentrated herbicide. Larger areas have been successfully restored into forest by mowing and planting native trees. To restore multiple acres, we recommend a gap planting method that establishes clusters of tall growing native trees that shade-out the tan tan over time

Series: Exotic Invasive Species

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Additional Reading

Invasive Species Specialist Group:
www.issg.org

USVI Forest Inventory Analysis

<http://srsfia2.fs.fed.us/states/vi/USVI%20FIA.htm>



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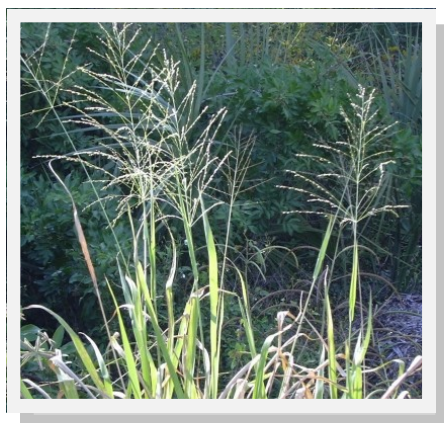
Guinea Grass (*Urochloa maxima*)

Grass Family Poaceae Native Range Africa

Pasture Pests

Description

Guinea grass (also known as *Panicum maximum*) is a large bunch grass native to Africa. This fast growing species forms clumps from deep growing roots, has long, wide, flat blades that taper to a point. Leaves/blades have soft hairs, stiffer at the base. It can reach over 6 feet tall in the Virgin Islands. Flowers and seeds are born in large clusters at the end of long shoots throughout the year



Historical Introduction

Guinea grass has been intentionally introduced throughout the moist and dry tropics and sub tropics in order to improve pastures for livestock. It is nutritious fodder and is high in protein. Guinea grass grows quickly, tolerates heavy stocking/grazing, some burning and resists drought well. Once established, guinea grass produces large volumes of

seeds and can perpetuate itself indefinitely. The plant has also been promoted for control of soil erosion.

Ecological Threat

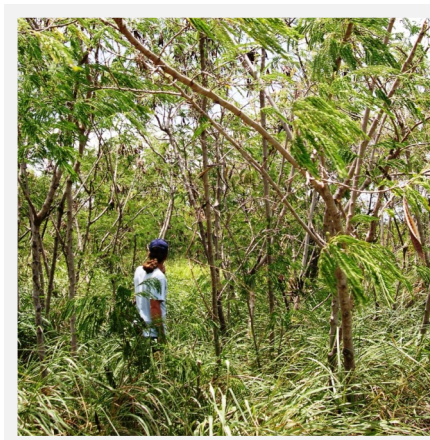
Guinea grass displaces native species by dominating areas and preventing other plants from growing. It is commonly seen growing in stands with only tan tan in the overstory and pure guinea grass below (photo at right). The same characteristics that make guinea grass desirable in pastures also make it harmful from an ecological perspective. It quickly spreads seeds to the surrounding area, along roadsides and other open habitats. It also builds large fuel loads that encourage fires that kill overstory trees.

Preferred Habitat

Guinea grass prefers full sun and deep soils in areas receiving over 900 mm rain/year. Like many invasive species, it thrives in pastures and roadsides. It is deep rooted and tolerates prolonged drought and fires better than most plants.

Dispersal

Tiny guinea grass seeds are easily transported by wind, animals, vehicles, hay production and normal farming activity. Seeds germinate and grow rapidly when moisture is available.



Management Options

Homeowners can eliminate guinea grass from a yard by repeatedly cutting/mowing before it sets seeds. It requires repeated cutting at first, but becomes easier over time. Shade slows guinea grass growth, so planting trees also helps with control. Over larger areas, such as forest restoration projects, "wet-blade" methods with a tractor mower and herbicide application are effective .

Additional Information

- <http://www.invasivespecies.gov>
- http://www.youtube.com/watch?v=lsG0y_aOGTw
- http://plants.ifas.ufl.edu/misc/pdfs/SP257/Panicum_maximum%28SP257-

Casha Bush— (*Acacia macracantha* and *A. tortuosa*)

These two plants are generally called casha bush. They are notorious for their long spines that can tear clothes, skin and even puncture vehicle tires. The plant, however, is native and does not behave like an invasive species. Most people consider the plants a nuisance and want to remove them from their property, but it does not spread across a landscape, does not harm the environment and does not require a program to control it. Casha is unusual because it is adapted to handle the harsh conditions present in pastures (*A. macracantha*) or the driest of dry sites (*A. tortuosa*) where other plants struggle to survive. The heavily thorned tree canopy is a safe, preferred nesting location for many smaller native birds, including the bananaquit.



(Casha flowers and its infamous thorns)

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www.geographicconsulting.com/services/invasive-species/

