An Evaluation of Select Milkweed Species (*Asclepias spp.)* in South Mississippi - Year 3

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WHY IS SOME MILKWEED MORE USEFUL THAN OTHERS?

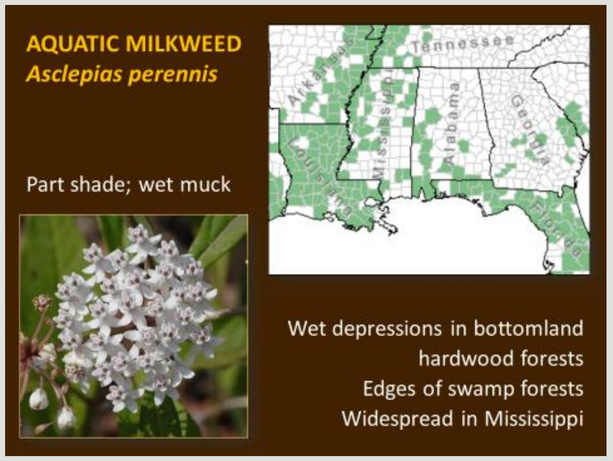
To be a valuable host plant for monarch butterflies, native milkweed must occur naturally (or be planted) in large enough quantities so that it will provide an **abundant food source** for caterpillars. Many of the milkweed species native to Mississippi grow in the wild as individual plants, therefore **colonizing species** provide a denser vegetative mass for feeding caterpillars. Also, the concentration of **cardiac glycosides** is important, as these compounds render the monarch caterpillars toxic to predators.

Field trials were conducted over the last three years at the South Mississippi Branch Experiment Station, the Crosby Arboretum Pollinator Garden and in home gardens of Pearl River County Master Gardeners, and evaluated for their usefulness as monarch host plants in coastal gardens.

Swamp Milkweed (A. incarnata) can grow from seed to 4 to 5 feet in one year.

BEST *ASCLEPIAS* SPECIES FOR SOUTH MISSISSIPPI HOME GARDENS:

TWO TOP-PERFORMERS – In the trials, *A. incarnata* was the most vigorous , highest performing milkweed of the species native to the southern states, providing the highest leaf mass available to monarch caterpillars of the species grown in 2018, demonstrating their potential to use in place of tropical milkweed (*A. curassavica*) *A. perennis* is also a useful species, but prefers some shade and continually moist soil. *A. incarnata* performed best in full sun, and under average garden conditions. Notably, *A. perennis* is considered a species well-suited to the mucky soils in many Louisiana gardens.



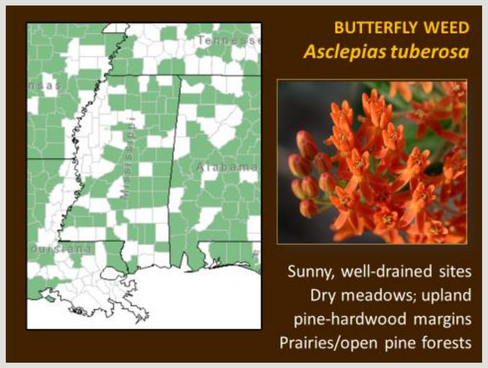
ASCLEPIAS SPECIES WITH MANAGEMENT POTENTIAL FOR INCREASING EXISTING POPULATION DENSITIES

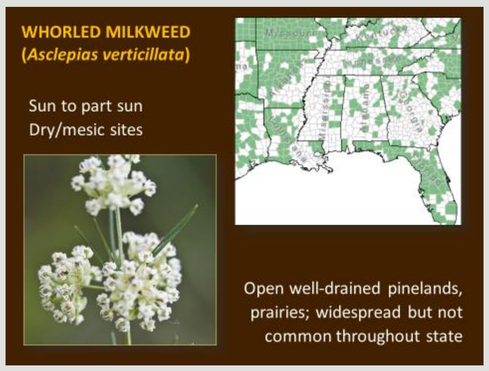
Asclepias longifolia
(LONGLEAF MILKWEED)

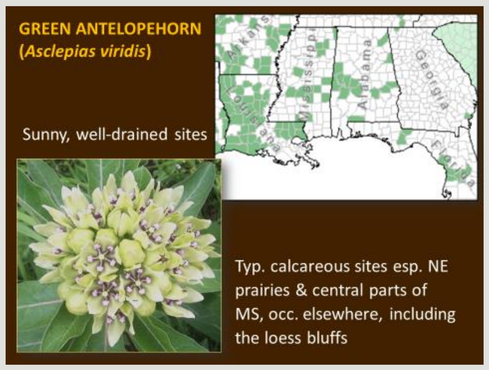
Photos: Bobby Lehmann

Asclepias obovata
(PINELAND MILKWEED)

COLONIZING *ASCLEPIAS* SPECIES BEST FOR PLANTING IN NATURAL AREAS:

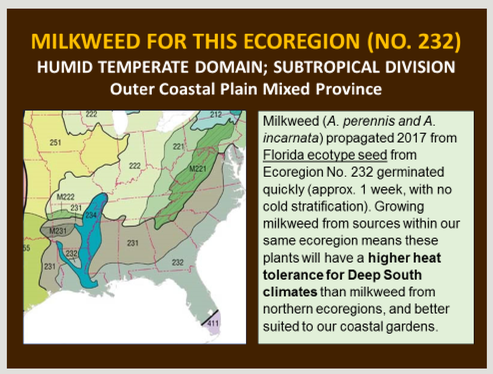






NOTE: Monarch caterpillars feeding on A. tuberosa are less toxic to predators due to lower cardiac glycosides concentrations. Caterpillars will consume other more palatable species of Asclepias over A. tuberosa, due to the plant having hairy leaves/stems.

2017 AND 2018 TRIALS INCLUDED FLORIDA ECOREGION 232 SEED



CONCLUSIONS:

1. A. *incarnata* appears to be the best native species to use in place of tropical milkweed, *A. curassavica*, in an average garden beds.
2. It is best to use seed and plants originating from your ecoregion.
3. Don't overlook opportunities to use native milkweed species in containers or in habitats suitable to their preferred conditions.
4. Seed, particularly A. *incarnata* from Ecoregion 232 grows quickly, yielding an abundant vegetative mass in only one year's time.
5. The density of native milkweed populations such as *A. verticillata*, *A. obovata*, and *A. longifolia* could be managed to result in larger quantities of host (and nectar) sources for monarch butterflies.