

PROPAGATING HARDWOOD SEEDLINGS IN LOUISIANA

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<http://www.fcnanet.org/proceedings/2000/matherne.pdf>

I. Introduction

- A. Demand for hardwood tree seedlings is currently at an all time high.
 - 1. The "no net loss of wet lands" law has caused increased activity in mitigating wet lands.
 - 2. In Louisiana there is much activity with the Wetland Reserve Program with thousands of acres currently signed up for hardwood planting and waiting for hardwood seedlings.
 - 3. The Conservation Reserve Program has also contributed considerably to the demand.
 - 4. Louisiana is currently approximately 50% forested (13,900,000 acres), with approximately 63% being private, non-industrial forest (PNIF). Hunting is a way of life in Louisiana, and because of population increases, hunting is mainly on "hunting clubs." Hunting clubs improving wildlife habitat on both PNIF and industrial lands has also contributed to the demand.
 - 5. There are also several other hardwood initiatives contributing to this increase in demand, such as Carbon Sequestration, Urban Forestry, and so on.
- B. Hardwood seedling production in Louisiana has continually grown in Louisiana, not only in the state nursery production.
 - 1. Approximately 9 new hardwood seedling nurseries have sprung-up in

Louisiana, in response to the overwhelming demand for seedling production.

- 2. These new nurseries are for the most part "mom and pop" operations started by farmers who have idle land and farming equipment.
- 3. We do advise them on an "as requested" basis.
- 4. Most grow the easiest species and the most sought after timber species.
- C. The State Of Louisiana, in our various names and departments, has been growing forest tree seedlings for almost 80 years.

II. Body

- A. In the last 10 years, Louisiana Department of Agriculture and Forestry (LDAF) has seen its production increase from 1.2 MM hardwood seedlings to over 7 MM this year.
 - 1. There has always been some interest in hardwood seedling planting in Louisiana.
 - 2. Originally, only a handful of species were planted:
 - a. Mostly reforestation species such as sweet gum, bald cypress, cherry bark oak, Nuttall oak, yellow poplar, cotton wood, sycamore, water oak, and so on. were planted.
 - 3. Today, LDAF nurseries try to accommodate the needs of our clients and their changing needs.

- a. New wetland programs need special nontraditional species for reclamation projects.
 - b. Wildlife habitat establishment and improvement require both traditional and nontraditional species.
 - c. Multiple use forestry, use of some traditional understory species.
 - d. We try to meet as many of the needs as we can.
- B. Nursery practices to produce this many different species has proven to be quite a challenge.
1. The biggest challenge now is locating enough seed to plant the crops.
 - a. There are seed vendors who sell a large variety of seeds of traditional species.
 - b. There are professional seed collectors who will custom collect special needs.
 - c. We collect our own seed and process ourselves.
 - d. Demand for hardwood seed has also increased. This has caused a severe shortage in supplies because most hardwood seed planted in Louisiana is wild seed. Collection areas are becoming more scarce.
 2. Wildlife biologist feel we collect too many seed and hurt wildlife mast supplies.
 3. Desirable hardwood seed collection areas are mainly on public lands, and collection for profit regulations are becoming prohibitive.
 4. Louisiana has begun to plant our own seed orchards, and convert progeny tests into seed production areas
 5. Many different sizes of seeds, even within species, is a challenge to get sowing rates uniform.
- a. Planting methods are from hand planting to machine planting.

- b. We use commercial planters and equipment that we custom build ourselves, based on equipment we have seen for other functions but have modified for our needs.
6. Cultivation treatments for the different species, within the same fields, is also a great challenge.
 7. Finding chemicals and correctly using them on the many different species has and will always be a challenge.
 8. Inventorying all these species is also quite complicated.
 9. We are currently still hand lifting and counting. Our soil and row spacing has not allowed us to get into automated lifting.
 10. We generally handle an average of 900 orders on an inventory of 5 MM seedlings.

III. Summary

- A. The demand for hardwood tree seedlings has seen a large increase in the past several years.
 1. The increase is due to the fact that there are several new incentive programs that have increased interest in farming hardwood trees.
 2. A new generation of landowners in Louisiana have also seen a need to reestablish hardwoods as a viable portion of their forest management systems.
 - a. To help improve the wildlife populations in their forests.
 - b. For aesthetics on their properties.
 - c. To establish "the natural state" of the original habitats.
- B. As a response to the increased demand for hardwood seedlings, production has increased dramatically.
 1. The state nurseries have increased production.
 2. Many new private, and semi-private nurseries have started up in Louisiana.
 3. This increase has triggered a shortage of seed availability and higher prices of seed.