

FORESTRY PRODUCTIVITY PROGRAM



LOUISIANA DEPARTMENT OF AGRICULTURE AND FORESTRY

MIKE STRAIN DVM, COMMISSIONER

5825 Florida Blvd; Suite 6000 Baton Rouge, LA 70806 (225) 925-4500

FY 2022

AUGUST 2021

TABLE OF CONTENTS

AUTHORIZATION/FUNDING	1
LAND/LANDOWNER ELIGIBILITY	1
INCENTIVE RATES	
TEN-YEAR REQUIREMENT	2
MAXIMUM PAYMENT LIMITATIONS	2
PRACTICE EXPIRATION PERIOD	3
REFUND POLICY AND PROCEDURE	3
APPEALS PROCESS	3
APPLICATION PROCESS AND PROCEDURES	4
PRACTICES, COMPONENTS AND SPECIFICATIONS	7
REGENERATION	7
Policies	
Lifespan	9
Specifications	9
Practices and Components	10
Tree Planting	10
Pine	10
Hardwood	10
Labor Only	10
Longleaf Pine	10

ite Preparation11
Light
Burn
Chemical
Mechanical 11
Post-site Preparation (Aerial, Ground or Injection)
CONTROL OF COMPETING VEGETATION
Policies
Lifespan 12
Specifications 13
Practices and Components
Chemical Release
Prescribed Burning

INCENTIVE RATES

APPENDICES

Acceptable Hardwood Species For Planting

Forest Type Map

FPP Application/Cooperative Agreement Instructions and Form

FPP Authorized Payment Form

Letter of Authorization

FORESTRY PRODUCTIVITY PROGRAM

AUTHORIZATION/FUNDING

FORESTRY PRODUCTIVITY PROGRAM (also referred to as the FPP Program) provides financial assistance to eligible landowners for establishing and improving a crop of trees. This program helps offset a landowner's expense(s) by sharing the cost of implementing specific forestry practices designed to produce a timber crop. Payments cover some cost of implementing one or more forestry practices, not to exceed a maximum limit set for each individual practice. Eligible landowners can receive up to the maximum of FPP assistance each fiscal year. This program was developed to:

- insuring a sustainable supply of timber and forest products
- aiding the economic well being of the state by providing jobs and revenue
- enhancing the aesthetics of the state
- providing suitable habitat for wildlife species
- aiding in the purifying of the air
- conserving topsoil by discouraging erosion
- enhancing water quality.

The FPP program will be administered through the LA Department of Agriculture and Forestry, Office of Forestry (LDAF) with technical assistance for approved practices.

LAND/LANDOWNER ELIGIBILITY

Any individual, corporation, partnership, association, trust, joint venture, other legal entity or combination thereof who owns ten (10) contiguous acres or more of land located in Louisiana suitable for growing a commercial timber species is eligible.

Lands/landowners not eligible are:

- same acreage currently under a <u>reforestation</u> contract from any federal, state (other than FPP), local government or private sector program; *excludes prescribed burning practice*.
- federal, state or local government agencies or entities
- corporations with publicly traded stock
- public utility service companies
- entities that are primarily engaged in the production of forest products (including TIMO and REIT)
- joint ownership in an eligible tract unless all joint owners and usufructaries or duly authorized agent(s) sign agreement.

RATES

The State Stewardship Coordinating Committee consisting of consulting foresters, industry foresters and representatives from the Louisiana Forestry Association, U.S. Forest Service, Natural Resource Conservation Service (NRCS), Louisiana Cooperative Extension Service, and Farm Services Agency (FSA) will meet to review the rates. The rates recommended by this committee will be presented to the Forestry Commission, at a quarterly Forestry Commission meeting, for review and approval. The approved rates will be published in the Louisiana Administrative Code.

TEN-YEAR REQUIREMENT

Each landowner who participates in a cooperative agreement with the LDAF shall be required to maintain the forestry usage for a period of 10 years (excludes the prescribed burning practice) from date of Certification of Performance. If land is sold, conveyed, etc. before the end of the agreement, the original recipient of funds is bound unless the new owner assumes responsibility in writing. If the agreement is violated, the LDAF shall have a right of action to recover the value of the State's portion of the cost of the cooperative agreement plus court costs and reasonable attorney fees.

LDAF Foresters shall make spot checks of practices carried out in past years to determine whether the practice(s) is being maintained. State Office will supply LDAF Forester with listing of properties to spot check.

If there is a failure to maintain the practice(s), the LDAF Forester will follow refund policy and procedures.

MAXIMUM PAYMENT LIMITATIONS

The maximum payment limitation for all payments is set forth in LAC 7:XXXIX.1307. Landowner is not allowed to receive more than the maximum amount set forth in Section 1307 in any one fiscal year (July 1 - May 31).

Where forestland is owned jointly, the joint owners shall be considered as one eligible landowner and entitled to receive the maximum payment. <u>Application/Cooperative Agreements with multiple ownerships shall apply under a single tax identification number on the W-9.</u> The test of ownership rests with the way the deed is recorded.

For estates, joint ownerships, etc. only one check will be issued. The individual who receives payment is responsible for issuing 1099s to other members for their portion of the payment.

The check-issued date will be the date payment is considered to have been made for maximum payment limitations purpose. Partial payments will not be made.

PRACTICE EXPIRATION PERIOD

Each landowner shall have 11 months (July 1-May 31) to complete the forestry practice or practices authorized by the cooperative agreement. No extensions will be granted. All required documentation SHALL be received at the Baton Rouge Head Quarters Office by June 15 COB.

If approved practices are not completed prior to new application period, and the applicant would like to reapply, then a letter of cancellation must be submitted.

REFUND POLICY AND PROCEDURE

LDAF Foresters are required to initiate the refund process when:

- overpayments have occurred for any reason
- participants fail to maintain completed practice(s) for the entire practice(s) lifespan
- participants sell, convey, or otherwise lose control of land upon which there is a
 continuing obligation to maintain a practice, and the new landowner does not agree to
 assume responsibility for maintaining the practice and the practice is intentionally
 destroyed
- The Commissioner of Agriculture and Forestry has the final determination regarding program violation(s) or abuse(s) that have occurred which require a refund.

APPEALS PROCESS

Any participant may appeal a determination made by the LDAF Forester by filing a written request with the Commissioner of Agriculture and Forestry, with a copy to the LDAF Forester, postmarked within 15 days after receiving the initial determination.

The request for review must contain the following information:

- name, address, and telephone number of landowner
- a statement of the facts of the case including reasons why the initial determination is believed to be incorrect, violations of applicable program regulations, and, if applicable, why the LDAF Forester failed to consider all the facts for the initial determination
- name and address of any known parties who may be adversely affected by the determination
- copies of all receipts and documents relating to the Application/Cooperative Agreement.

The LDAF Forester shall forward all pertinent documentation to the Commissioner, with a copy to the landowner, within five (5) working days after receiving a copy of the written request.

The Commissioner will consider all information and issue a review of the determination within 30 calendar days after receiving the pertinent documentation from the LDAF Forester.

Important:

The Commissioner may appoint a reviewing officer to collect additional information deemed pertinent to the case. If additional information is requested, the reviewing officer may cause a reasonable delay in the process to receive and review this information. Generally, this delay shall not exceed 30 calendar days.

Any other person adversely affected by the review shall be forwarded a copy of the decision.

Following report by reviewing officer, the Commissioner may make the following determinations:

- affirm, modify, or reverse the initial determination of the LDAF Forester
- remand the initial determination to the LDAF Forester for further consideration with specific instruction(s)
- dismiss the appeal if:
 - a. the appeal is not filed within the 15-day timeframe
 - b. the requested change cannot be granted under law, fact, or regulation
 - c. the appeal lacks adequate information on which to base a decision the landowner withdraws the appeal.

An untimely appeal may be acted upon if the Commissioner feels the circumstances warrant action. If the Commissioner does not accept an untimely appeal, that decision is not subject to further review and the initial determination stands as final.

APPLICATION PROCESS AND PROCEDURES

- Application/Cooperative Agreement will be available from LDAF foresters, LDWF biologists, industry foresters, consulting foresters, or foresters from other governmental agencies.
- 2. Landowner or agent completes Landowner Information section of the Application/Cooperative Agreement.
- 3. Resource Specialist completes Property Information along with his/her name, agency name and phone number. Under Program Practices the Resource Specialist indicates practices and acres requested. Signed Application/Cooperative Agreement is forwarded to appropriate LDAF Office with completed W-9 form, copy of deed,

- practice plan, and power of attorney, if applicable. Application forwarded to appropriate agency with technical responsibility for practices listed on application.
- 4. Resource specialist having technical responsibility will contact landowner/agent to make field inspection for <u>needs determination</u>. Resource specialist enters needs data, signs and dates Application/Cooperative Agreement and enters Estimated Funds needed for each practice component. Application/Cooperative Agreement, W-9, copy of deed, practice plan, and power of attorney, if applicable, are forwarded to LDAF Office.
 - NOTE: If resource specialist determines (1) no needs, (2) different practice needs, or (3) different acreage needs, he/she will contact landowner/agent and advise them of changes in needs determination. If there is still a disagreement, inform District Forester and make arrangements for second opinion. If no agreement can be reached, landowner/agent has right of appeal (see Appeals Process, p. 3).
- 5. The LDAF Office forwards completed Application/Cooperative Agreement (white copy) to State Office with application fee, W-9 form, copy of deed, practice plan, and copy of power of attorney, during application period.
- 6. Completed applications will be accepted April 1- May 31. When received in the Baton Rouge Office, funds will be allocated on a first-come; first-served basis, during the funding period (April 1-May 31) by date the completed application is received. The State Office will enter data from the Application/Cooperative Agreement.
- 7. Upon funding approval, an Authorization Form is completed electronically by State Office. The State Office mails a letter stating authorized practice(s) to landowner/agent with a copy to the LDAF Office and Forester. Landowner can then begin practice(s) according to the forest practice plan but must first notify LDAF Forester before actual work begins.
- 8. LDAF Forester meets landowner, agent, or vendor to make him/her aware of practice specifications. Periodic inspections should be made to ensure practice(s) are being implemented according to specifications.
- Landowner/agent completes practice(s) and pays vendors. Landowner notifies LDAF
 Forester of completion of practice(s) and provides <u>copies</u> of all receipts, with
 Application/Cooperative Agreement number written on each. The LDAF Forester
 computer generates an original Authorization Form and has landowner sign
 Landowner Request for Payment on authorization form.

- 10. LDAF Forester makes compliance check and enters acres completed and receipt amount by practice on original Authorization Form. LDAF Forester dates and signs form and forwards form with copies of receipts to State Office.
 - **NOTE:** If the practice(s) is not in compliance, notify landowner/agent and District Forester in writing. Plan for second opinion and if no agreement can be reached, landowner/agent has right to appeal.
- 11. State Office calculates the payment amount and requests check be issued.

PRACTICES, COMPONENTS AND SPECIFICATIONS

The purpose of these practices is to establish a stand of trees on land suitable for producing forest products.

REGENERATION

Policies for this practice are as follows:

- (1) A forest practice plan is required to be eligible for funds.
- (2) Funds are not authorized for:
 - a. requests on less than 10 acres
 - b. planting orchard, ornamental trees, or Christmas tree production fencing
 - c. measures to protect seedlings from wildlife destruction
 - d. lands containing adequate natural regeneration of a suitable commercial species having at least 600 seedlings per acre.
- (3) Plantings must be protected from destructive fire and destructive grazing.

 Grazing is permitted if recommended by a Soil and Water Conservation District (SWCD) approved grazing plan, which is incorporated into the Forest Practice Plan.
- (4) Seedlings must be at least one-year nursery stock. Cuttings should be taken from one to three-year-old stock. Minimum standards for pine seedlings are as follows:
 - tap root length 5 inches from root collar to termination of tap root
 - shoot length 5 inches from root collar to terminal bud
 - root collar diameter 1/8 inch
 - longleaf pine root collar diameter of 4/10 inch with 6 inch tap root and treated with benlate or containerized seedlings.

Optimum planting standards for hardwood seedlings are as follows:

- top length of at least 18 inches
- root collar at least 3/8 inch
- root length 8 to 10 inches
- (5) There must be a survival of at least 350 well-distributed pine seedlings, or 200 well-distributed hardwood seedlings or cuttings per acre after the first growing season.

- (6) On-site inspections will be made <u>during</u> the planting operations to determine compliance of the planter and quality of the seedlings. Survival plots for the purpose of determining minimum stocking levels will be established for determination of first-year survival.
- (7) Chemicals used in performing this practice must be federally, state and locally registered, and must be applied in accordance with authorized registered uses, label directions, and other federal and state requirements and policies.
- (8) Plans must be made for protecting the resource base and the environment through the use of Best Management Practices (BMPs).
- (9) For the purpose of pine seed sources for Louisiana, the State will be divided into North and South using the northern parish boundaries of Vernon, Rapides and Avoyelles as the North-South separation.

The following are acceptable seed sources by pine species and hardwoods:

Loblolly Pine For Louisiana, use Louisiana or East Texas seed sources.

For areas North of I-20, seed sources from Ashley, Union, Columbia, Lafayette and Miller Counties, Arkansas, are also acceptable.

Slash Pine For South Louisiana; use South Louisiana and Southeast Texas

seed sources. Slash pine is not recommended for planting in

North Louisiana.

Longleaf Pine Use local sources or South Georgia, South Mississippi, South

Alabama or North Florida.

Hardwoods Use Louisiana seed sources where possible or use seed sources

collected within a 150-mile radius of the planting site.

(10) Two types of weevil damage, pales and pitch-eating weevils, can contribute significantly to first-year mortality. Therefore, pine land cut and site prepared before July can generally be planted the following winter. However, on pineland harvested in July and later, or in older cuttings where residual pine is cut during late summer or fall site preparation, planting shall be delayed one year, or seedlings treated with Pounce (or similar chemical).

Lifespan

This practice(s) shall be maintained for a minimum of 10 years following establishment of practice(s), which is the date of **Certification of Performance**. Funds must be refunded plus court costs and reasonable attorney fees if the practice(s) is intentionally destroyed during the lifespan of the cooperative agreement.

Specifications

Seedlings shall be planted on a proven and acceptable spacing which will yield an initial density, as outlined on per species type.

It is extremely important that seedlings receive proper care from the time they are lifted at the nursery to the actual planting in the field. Critical considerations include avoiding exposure of the bags or bundles to direct sunlight and allowing for space between bags or bundles when storing to promote proper air circulation. Seedlings should be stored in a cool or refrigerated area and they should not be allowed to freeze. If seedlings freeze, allow them to thaw naturally before planting.

Do not allow boxed, bagged or baled seedlings to be crushed or bruised by rough handling, sitting or standing on them, or placing heavy objects on them.

Opened container(s) still containing seedlings should be tightly closed. Container(s) accidentally torn or punctured should be patched with tape.

Seedlings should be planted within two weeks of lifting or removal from cold storage. If they cannot be planted in the proper time frame, seedlings should be "heeled in" unless cold storage is available.

Seedlings are pruned in the nursery beds prior to lifting and, in most cases, do not need pruning. Tap roots are pruned in the lifting process at 7-8 inches below the root collar. If longer tap roots are encountered, they may be cut back to a minimum of 8 inches. Lateral roots should not be pruned; exception, if exceedingly long laterals are present, these may be pruned by pulling them down alongside the tap root and cutting even with the end of the tap root.

The vendor will avoid exposure of the roots, particularly on dry, windy days. Seedlings in planting bags or machine trays should remain moist until planted. Boxed, bags or bales of unopened trees should be placed in cool, shady places and not allowed to remain in the back of a truck parked in the sun.

The landowner, agent, or vendor will notify LDAF Forester upon starting and completion of the job.

Proper planting equipment includes dibble, planting bar, wheel-type machine planter and any tool that provides an ample hole to accommodate seedling roots. Dibbles, hoedads or similar tools, should have a minimum blade length of 10 inches and width of 3 inches. Machine planting should follow contours, of the land.

A planting job will be considered satisfactory if 90% of the trees are planted correctly. A correctly planted seedling will be vertical; it will be at the same depth at which it grew in the nursery; the planting hole will be closed, and the seedling packed firmly; the roots will be straight with no J or U rooting present; the seedling will not be a cull; and the spacing will be according to recommendations by the LDAF Forester. Cuttings should be a minimum of 20 inches in length, planted with no more than 2 inches exposed above the ground.

The planting should normally take place between December 1 and March 31, but only if sufficient soil moisture exists and the ground is not frozen. The LDAF Forester may temporarily suspend planting due to weather conditions.

The vendor is responsible for removing trash created by the operation.

Practices and Components

Tree Planting

Pine

Loblolly, shortleaf or slash pine planted at a spacing that will yield an initial density of 540 to 740 trees per acre or 425-625 per acre for containerized seedlings. This will allow most common planting spacings between 8 x 10 (544 tpa) and 6 x 10 (726 tpa) and reflect current trends in tree planting, while maintaining an adequately stocked stand for quality timber production. Rate includes seedlings and planting costs.

Hardwood

Hardwood species and cypress planted at a spacing that will yield an initial density of 250 to 550 trees per acres. Rate includes seedlings or cuttings and planting costs (for acceptable species, see Appendix).

Labor Only

Pine or hardwood seedlings are provided free-of-charge to landowner. Rate includes planting cost only. Seedlings are planted at the above stated initial densities.

Longleaf Pine

Longleaf pine planted at an initial density of 700-900 trees per acre for bare-root seedlings or 425-625 per acre for containerized seedlings. Rate includes seedling and planting costs.

Site Preparation

Herbicides used for site preparation must be labeled for forestry use.

Light

This practice is limited site preparation to prepare an area for artificial regeneration by disking, mowing, or sub soiling.

Area disked should be allowed to settle for 30 days before seeding or planting. Sub soiling must be completed when the need is determined by the Natural Resources Conservation Service (NRCS) and included in the forest management plan. Subsoiling must be completed a minimum of 30 days prior to planting and on centers spaced the same as tree planting. Seedlings, cuttings, or seed must be planted to the side, 3" - 6", of the furrows made by sub soiling.

Burn

Applicable to areas completely cut-over with sufficient fuel to carry a fire of such intensity that no other method is necessary. This includes areas damaged by natural disasters such as bark beetle infestations, tornadoes, hurricanes, ice or hail, and areas where all merchantable timber has been removed. Also includes burning of agricultural lands (pastures, fields, etc.)

Chemical

Chemical application can be applied by ground, aerial or injection. Cost-share rate includes chemical and application.

Mechanical

Site preparation by any mechanical means. Rate includes mechanical operation.

Post-site Preparation (Aerial, Ground, or Injection)

Trees can be planted followed by an approved herbicide application considered safe for the release of newly planted seedlings. The herbicide treatment must be completed during the active growing season of the targeted species, but no later than October 31 of the same planting season. Chemical application can be accomplished by ground, aerial or injection.

Over-the-top chemical applications for pine seedlings planted in pastures or fields must be completed by May 15 of the same planting season.

CONTROL OF COMPETING VEGETATION

Policies for this practice are as follows:

- 1. A forest practice plan is required to be eligible for funds. Funds are limited to the release of trees for the primary purpose of upgrading the stand for the production of forest products.
- 2. Funds are authorized for:
 - a. releasing desirable seedlings and young trees from competition of undesirable brush, vines and/or trees
 - b. release of planted or natural pine by burning.
 - c. Prescribed burning to promote the health and vigor of pine and hardwood stands.
- 3. Funds are not authorized for:
 - a. requests on less than 10 acres
 - b. acreage in orchard production, ornamental trees, Christmas tree production, or fencing
 - c. measures to protect seedlings from wildlife destruction.
- 4. Stand must be protected from destructive fire and destructive grazing. Grazing is permitted if recommended by a SWCD approved grazing plan which is incorporated into the Forest Practice Plan.
- 5. Improvements should be done in a way that preserves or improves the environment, maintains or enhances wildlife habitat and aesthetics.
- 6. Chemicals used in performing this practice must be federally, state and locally registered and must be applied according to authorized registered uses, label directions, and other federal and state requirements and policies.
- 7. Consideration must be given to protecting the resource base and the environment using Best Management Practices (BMPs).

Lifespan

This practice(s), excluding the prescribed burning practice, must be maintained for a minimum of 10 years following establishment of the practice(s), which is the date of Certification of Performance. Funds must be refunded if the practice is destroyed during the lifespan of the cooperative agreement. If the seedling survival falls below the minimum rate indicated for a species (pg. 10 & 11), a landowner may request that the track be re-planted. A new application, including fee, must be submitted, for re-planting to be approved.

Specifications

For slash, shortleaf and loblolly pines, the area must have a minimum of 350 well-distributed seedlings per acre at least 10" in height or potential timber trees as follows:

Average DBH	Minimum Trees/Acr	<u>e</u>
3	100	
4	60	
5	40	
6	25	

Also, one or more of the following conditions must exist:

- dead, diseased, insect-infested, crooked, limby, and undesirable trees are present, which should be removed, girdled, or treated with a recommended chemical
- desirable species of young trees or seedlings are overtopped or shaded by undesirable vegetation where the removal of the latter will release the young trees or seedlings for better growth
- crowded stands of desirable trees are present which should be thinned to provide adequate growing space for the remaining trees

For longleaf pine, the area must have a minimum of 350 seedlings per acre in the grass stage.

Practices and Components

Chemical Release

Chemical application by aerial, ground, or injection following labeled instructions.

Prescribed Burn

Burning in planted or natural pine to reduce competition and control brown-spot needle blight. In planted longleaf pine, burning must be an early growing season burn done at the beginning of the second growing season (March to May). In a natural stand of longleaf pine, an early growing season burn (March to May) must be completed before a majority of the longleaf seedlings emerge from the grass stage.

Prescribed burning in pine and hardwood stands for the control of competing vegetation, including, but not limited to, invasive species and to promote the health and vigor of the stand.

Acceptable Hardwood Species for Planting

Nuttall Oak Water Oak Willow Oak Cherrybark Oak

Cow Oak White Oak Southern Red Oak

Shumard Oak

Cottonwood Sycamore Green Ash

Native Sweet Pecan

Baldcypress Yellow-Poplar Sweetgum

Other species must be approved by State Office.

Effective 2/2015: Care should be taken when planting ash species due to the confirmation of Emerald Ash borer in Louisiana.

Louisiana Department of Agriculture & Forestry Office of Forestry

Forest Type Map	Scale:
-----------------	--------

Map should include the following:

- 1. Property Boundaries
- 2. Ingress and egress locations
- 3. Clear indication of area to be treated

Maps may be a legible copy of photograph with the above information included.



Reforestation—a Louisiana Priority for Decades

Replanting with pine and a mix of hardwoods carriprovide multiple benefits for recreation, wildlife habitat diversity, and economic return

Introduction

Louisiana Wildlife Federation (LWF) is a statewide nonprofit organization that advocates for conservation of wildlife and wildlife habitat in our state. We are advocates for forested lands for their economic, ecological, and recreational roles in Louisiana and have supported active reforestation as fundamental to the health of forest ecosystems.

A Bit of History

Beginning in the late nineteenth century Louisiana's forests were cut over massively with little thought for the future of the land, wildlife, water quality, or ecosystems. Foresters and political leaders took note of the damage that was being done across the U.S., resulting in the founding of a national conservation movement with early leaders such as Theodore Roosevelt, John Muir, and Gifford Pinchot, first head of the U.S. Forest Service. In Louisiana during the early decades of the twentieth century, some prescient individuals such as Henry Hardtner and Caroline Dormon encouraged the recognition and application of forestry management principles. However, the exploitative approach in Louisiana continued into the 1940s when some of the largest and most remote virgin bottomland forests in the state finally fell to the ax. Most of the lands stripped of trees were left to regenerate slowly on their own or were converted to some kind of agricultural use which often did not prosper due to low soil fertility. Soil erosion became a big problem in some of the areas that had been denuded of trees. The reforestation and "wise use" movement became a public policy objective, which eventually led to a program to assist landowners who were interested in jump-starting the regeneration that would otherwise take place much more slowly by natural seeding. For several decades, Louisiana has had positive trends in forested acreage. These trends have increased the supply of wood available for various purposes, ranging from sawtimber to build houses to pine pulp material for paper and packaging products and wood pellets for European power plants seeking renewable energy sources. Forests throughout the state have continued to provide a primary setting for outdoor recreation and they have provided the necessary backdrop for the recovery of threatened and endangered forest wildlife species such as black bear, panther, red-cockaded woodpecker, and a flourishing deer population.

Recent Changes Affecting Landowners' Potential Economic Returns and Program Options

As the supply of wood has increased throughout Louisiana and the southeast U.S. with the recovery of our forests, technology and economic changes have simultaneously reduced demand for some forms of wood, leading to a steady increase in timber inventories and flat or declining prices that landowners can obtain for their pulp and sawtimber.

This situation challenges landowners to reforest in smart ways that will produce a variety of tree species and a natural mix that harbors the best wildlife potential for recreational and aesthetic purposes.

Because such an approach does not overcommit a landowner to one species, it also provides economic diversification benefit as the demand for various species continues to wax and wane and in recent years has favored hardwoods.

Reforestation that promotes both economic and ecological diversification:

- planting a mix of hardwoods of several species in addition to pine
- · favoring longleaf pine in the areas where longleafs were the original dominant forest type
- · providing openings for natural regeneration of undergrowth for the wildlife to browse
- · limiting use of herbicides
- providing 100% hardwood replantings in ravines, creek bottoms, and sloped areas
- planting species that were common in the original forests of an area, depending on such factors as slope, soil type, geology, and locations of intermittent streams

LWF urges your consideration of the following factors as input to the reforestation decision:

Review the recent decades' trends in sawtimber and pulp prices for pine and hardwoods.

Ask yourself what kind of trees will give the best possibility of higher prices in the future.

Ask questions about trends in inventory of pine pulp and sawtimber as well as locations of mills near your land, which will affect your ability to find an interested logger.

Review the thinning requirements (including timing and cost thereof) of any pine monoculture management. Loblolly must be thinned periodically to be average wildlife habitat, and low pine pulp prices limit landowners' ability to get the requisite thinning done.

Consider your family's values and interest in enjoying your land for hiking, hunting, and other outdoor activities. What type of woods do you want to see on the property? What recreational uses might you make of it?

Consider the greater ecological stability of a well-mixed hardwood and pine reforestation that mimics the natural forests that preceded the original cutting of the forests a hundred years ago.

Consider the role of forests in storing carbon dioxide and other greenhouse gases (maintenance of forests worldwide will be a factor in limiting the severity of climate change in the future.)

LWF can suggest people who have shown an interest in helping landowners as they contemplate advantages of diversified reforestation:

- Dr. Richard Williams, forester, USDA Natural Resources Conservation Service, (318-473-7804)
- Robbie Hutchins, forester, LSU Ag Center, (318-308-2995)
- C. C. Richmond, private lands biologist, Louisiana
 Department of Wildlife and Fisheries, (337-764-4822)
- Mike Adcock, owner of Cypress Brake Tree Farm,
 Rayville (318-282-8454)—hardwood seedlings for sale
- Don Anderson, owner of Delta Wildlife, Crowville (318-282-0418)—hardwood seedlings for sale
- Charles Williams, LWF Chairman of Forest and Upland Wildlife Committee, (225-250-8623)

