

FLORIDA

Southern Pine Beetle (SPB) Assistance and Prevention Program

Technical Guidelines



**Florida Department of Agriculture and Consumer Services
Florida Forest Service**



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Southern Pine Beetle (SPB) Assistance and Prevention Program
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Southern Pine Beetle (SPB) Assistance and Program Technical Guidelines

A. Introduction

The southern pine beetle, or SPB (*Dendroctonus frontalis*), is a native, periodically destructive insect pest of pines in the southeastern United States. Like other pine bark beetle attacks, SPB attacks are typically limited to pines that are dying or weakened due to environmental stress, competition, age, or other factors. Under susceptible stand and environmental conditions, however, SPB populations have the potential to build rapidly and kill large numbers of pines, and may overcome the defenses of healthy trees during periodic outbreaks. Between 1993-2002, there were nearly 7,000 SPB infestations in Florida resulting in over 36,000 acres with pine mortality.

The best way to minimize losses from the SPB is to prevent infestations by reducing stand susceptibility through active forest management. Management practices that can help prevent SPB infestations and outbreaks include:

- **Thinning overstocked stands.** Dense stands with high basal areas are particularly susceptible to SPB and promote tree-to-tree spread of infestations. Overstocked stands can be thinned back to basal areas of $\leq 80 \text{ ft}^2$ per acre to reduce SPB susceptibility.
- **Reducing understory competition.** Thick understory woody and/or dense herbaceous vegetation can place competition stress on pines, particularly during droughts. Competing vegetation can be controlled through use of prescribed fire, mechanical treatments, or herbicides.
- **Planting less-susceptible species on appropriate sites.** Loblolly and shortleaf pine are among the most susceptible species to SPB. Slash pine is somewhat more resistant, and longleaf pine has relatively good natural resistance to SPB. Healthy, well-managed stands of longleaf and slash pine on appropriate growing sites are of low susceptibility to SPB.
- **Harvesting diseased or stagnant stands.** Stands that have declined in vigor due to disease or prolonged stagnant growth under overstocked conditions can be harvested and regenerated to lower-susceptibility conditions.

B. Program Objective

The primary objective of the SPB Assistance and Prevention Program is to prevent SPB damage and outbreaks in Florida by helping non-industrial private forest (NIPF) landowners to reduce the susceptibility of their forests. Toward this end, the program offers NIPF landowners cost-share or incentive payments for conducting certain approved forest management practices that help prevent and reduce the occurrence of SPB infestations. This program is administered by the Florida Department of Agriculture and Consumer Services Florida Forest Service (FFS) and is funded through grants from the USDA Forest Service.

C. Eligibility and Program Requirements

1) Eligible Ownership Types:

For the purposes of this program, a **landowner** includes any **individual or entity** (e.g., partnership, corporation, company, trust, etc.) that legally holds ownership of the land indicated on the application. The landowner is defined as the name(s) and Taxpayer Identification Number entered on the Florida Substitute W-9 Form information that is entered online at <https://flvendor.myfloridacfo.com>. The name(s) on the W-9 form should be the same name(s) entered on the program application, and should be the name(s) that appear on the deed or other document of title evidencing ownership of the land.

Only non-industrial private forest (NIPF) landowners who own at least 5 acres, but not more than 5000 acres, of land in Florida are eligible to apply for funding through this program. These NIPF landowners may include private individuals or entities, joint owners, non-profit organizations, or corporations that are not wood-using industries and do not have publicly-traded stock. Ineligible owners include lands controlled by federal, state, and local governments, wood-using industries or entities that derive more than 50% of their gross income from wood-using industries; corporations with publicly-traded stock, or public utility companies.

- 2) Location:** This program is applicable only on properties located within the known range of the Southern Pine Beetle in Florida. This includes Florida Forest Service Field Operation Regions 1 and 2, and certain counties in Region 3:

Region 1 Counties: *Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf, Holmes, Jackson, Jefferson, Leon, Liberty, Okaloosa, Santa Rosa, Wakulla, Walton, and Washington.*

Region 2 Counties: *Alachua, Baker, Bradford, Clay, Columbia, Dixie, Duval, Gilchrist, Hamilton, Lafayette, Levy, Madison, Marion, Nassau, Putnam, Suwannee, Taylor, and Union.*

Region 3 Counties: *Citrus, Flagler, Hernando, Lake, Orange, Pasco, St. Johns, Seminole, Sumter, and Volusia.*

- 3) Cost-Share Rates:** NIPF landowners who meet all eligibility and program requirements may apply to receive partial reimbursement or incentive payments for successful completion of certain approved practices. Payment will be made at a standard, specified rate for each practice (see **Appendix 1**). Submission of written documentation (e.g., receipts, invoices) of costs incurred is required for all practices except the first pulpwood thinning practice. For first pulpwood thinnings, documentation (e.g., scale tickets, volume summaries) must be shown to the County Forester, and the volume of wood harvested must be recorded on the application form.

Occasionally, landowners may choose to conduct a practice (in whole or in part) using their own resources, labor, and/or equipment, and thus may not receive a receipt or invoice from a contractor. In such cases, landowners are required to generate their own invoice and submit it at the time of project completion. **Appendix 6** may be used as a template.

- 4) **Number of Applications per Year:** Only one application per landowner is allowed per state fiscal year (see item 1 above for definition of landowner). If an individual owns land (in full or in part) in the name of more than one legal landowning entity, that individual should submit an application on behalf of only one of those landowning entities per state fiscal year. If it is determined that an individual is represented as owner on more than one application per year, the Florida Forest Service reserves the right to approve only one of those applications.
- 5) **Maximum Annual Payment:** The maximum cost-share reimbursement per application (and therefore, per landowner) is \$10,000 per state fiscal year.
- 6) **Application Period:** Applications will be accepted during a specified sign-up period for a given fiscal year (**Appendix 1**). Applications received at the FFS Forest Health Section office in Gainesville before the start date, or received (or postmarked) after the end date will not be considered, or will receive lowest priority ranking for any remaining available funds. All applications received during the sign-up period will be equally evaluated and ranked for funding approval using established criteria (see **Appendix 4**).
- 7) **Minimum Practice Acreage:** First pulpwood thinning practices must be conducted on a minimum of 5 acres. All other practices cost-shared through this program must be conducted on a minimum of 10 acres. The entire area treated must be within the state of Florida, and owned in the name of the same landowning entity.
- 8) **Multiple Parcels:** Multiple non-adjacent parcels of land may be included on the same application, provided that 1) the acreage is all within the state of Florida, 2) the total acreage limit for a given practice is not exceeded (Section D), and 3) all the acreage is owned in the name of the same landowner or landowning entity. For example, if John C. Doe owns two separate 20 acre parcels of pine timber, both in the name of Doe Farms, he may apply for a first pulpwood thinning practice that includes the total 40 acres on the same application. However, if John C. Doe owns two separate 20 acre parcels, one in the name of Doe Farms and one in the name of JCD Trust, he cannot include both on the same application. Neither should he submit separate applications for these two parcels in the same fiscal year (see number 4 above).
- 9) **Existing Pine Stand:** Each practice in this program (with the exception of Seedling Establishment) must be applied to an existing pine stand, which is defined (for the purposes of this program) as a forest stand (plantation or natural) in which pine species (*Pinus* spp.) constitute at least 70% of the stand's basal area or stem density.
- 10) **Prior practices:** Any practices performed prior to application approval are not eligible for cost-share reimbursement. Each landowner will be notified in writing when his/her application has been approved.
- 11) **CRP Landowners:** Acreages enrolled in the Conservation Reserve Program (CRP), or other programs that may prohibit receipt of federal cost-share funds from more than one source for the same acreage, are not eligible for treatment under this program.

12) Stand Maintenance Requirement: Pine stands established or treated with funds from this program must be maintained for at least five (5) years following completion of the treatment. In other words, a stand may not be harvested or intentionally destroyed within five years from the date of any SPB Prevention Program-funded treatment. The only exception to this requirement is for stands (or sections thereof) that must be harvested to salvage timber or suppress a spreading bark beetle infestation, disease infection, wildfire, or other natural disaster that destroys the stand. This provision also applies to pine seedling plantings that contained sufficient numbers of live seedlings at the time of the first year survival check (see below), but were destroyed between the survival check and the end of year 5 due to a pest infestation or natural disaster. In such cases the landowner must acquire an on-site confirmation and authorization from a FFS forester prior to harvest or stand conversion. Failure to abide by this requirement will result in the recapture of payments.

Pine stands established through this program must have a minimum of 400 live seedlings per acre at the time of a first-year survival check conducted by the FFS County Forester in August-October following the winter planting season, or 6-10 months following a summer planting. If the plantation does not meet this minimum live density at the time of the survival check, the landowner must 1) replant or augment plant any acreage that does not comply with the minimum density requirement, or 2) repay the payments received to the state.

13) Treatment Damage to Stands: All treatments cost-shared in this program must be conducted in a manner that avoids or greatly minimizes injury or stress to the residual stand. If implementation of a treatment results in notable damage to the residual stand, the Florida Forest Service reserves the right to deduct areas with excessive ($\geq 25\%$ of the stand basal area or stem density) root injury, trunk injury, crown scorch ($\geq 75\%$ of canopy) or tree mortality from the final payment acreage. The Florida Forest Service also reserves the right to withhold payment for practices that are not conducted according to the requirements and standards specified in these Guidelines.

14) Number of Practices: On a given application, a landowner may request cost-share or incentive funds for one (1) or two (2) of the available practice options described in Section D below. Justification is required for certain combinations of practices on the same area; see Section D for details.

D. Management Practices Approved for Cost-Share Reimbursement

1) FIRST PULPWOOD THINNING

- a) **Stand requirements:** This practice must be applied to an existing pine stand (see Section C.9.) of at least 5 acres, with an average basal area of at least 110 square feet per acre.
- b) **Treatment requirements:** The treatment must be the first thinning the stand has received. After treatment, the average basal area of the stand must be at least 60 ft²/acre but must not exceed 80 ft²/acre. Clearcuts, patch-cuts, or any harvests other than first thinnings do not qualify. Patches cleared for necessary ramps or loading areas within the tract being thinned are not considered clearcuts and may be included in the thinned acreage. A maximum of 50 acres is eligible for payment under this program.

- c) **Cost-share rate.** A flat per-acre rate (see **Appendix 1**) will be paid to the landowner for implementation of this practice, regardless of any profits gained from sale of the harvested timber. Documentation (e.g., scale tickets, volume summaries) showing tons of pulpwood removed from the stand must be retained and presented to the local FFS Forester for verification of volume harvested. This volume must be recorded on the application form when the final payment request is submitted.

2) **PRESCRIBED BURNING**

- a) **Stand requirements.** This practice must be applied in an existing pine stand (see Section C.9.).
- b) **Treatment requirements:** The burn must be conducted in accordance with State Chapter 590, F.S. and/or Florida Administrative Code 5I-2 and local laws, regulations, and burning restrictions. A burning authorization must be obtained from the Florida Forest Service for the day of the burn. The burn must be conducted between September 15 and May 15 with adequate equipment, personnel, and fire breaks/lines for conducting and containing the burn safely. The burn must not result in excessive crown scorch (see Section E.13). A maximum of 150 acres is eligible for cost-sharing.
- c) **Cost-share rate:** Payment for the successfully completed practice will be disbursed according to the per acre rate listed in **Appendix 1**. Original receipts/invoices of all costs incurred must be retained and submitted with payment request.

3) **MECHANICAL UNDERBRUSH TREATMENT**

- a) **Stand requirements.** This practice must be applied to an existing pine stand (see Section C.9.) with an average basal area of at least 45 square feet per acre.
- b) **Treatment requirements:** Competing woody underbrush and other understory vegetation must be reduced either with a Gyro-trac, Posi-trac, or equivalent mulching-head equipment, or with a bush-hog, Brown Tree Cutter, or other type of brush mowing equipment typically pulled with a farm tractor. Injury to roots and stems of residual pines must be avoided or minimized. A maximum of 50 acres is eligible for cost-sharing.
- c) **Justification requirement:** If the landowner applies for a mechanical underbrush treatment, a justification must be included with the application, explaining why mechanical underbrush treatment (as opposed to prescribed burning) is necessary in order to meet management objectives. This justification may be included on an additional sheet of paper, submitted with the application form. Submitting a justification does not guarantee that a combination of practices will be allowed; each justification is subject to review by FFS management prior to approval.
- d) **Cost-share rate:** Payment for the successfully completed practice will be disbursed according to the per acre rate listed in **Appendix 1**. Original receipts/invoices of all costs incurred must be retained and submitted with payment request.

4) **SEEDLING ESTABLISHMENT**

- a) **General treatment requirements:** Landowners establishing a longleaf or slash pine plantation on appropriate sites (as confirmed by a FFS forester) may receive cost-share assistance for the cost of the seedlings (containerized or bare root), the planting operation (machine or hand planting), and post-planting control of herbaceous weeds with

herbicide. A maximum of 150 acres is eligible for cost-sharing. *Costs associated with site preparation are not eligible for cost share.*

- i) Planting density must be at least 605 trees/acre.
 - ii) Cost-share reimbursement of seedling costs will be limited to a maximum of 726 trees/acre. If the average trees/acre planted exceeds that density, the maximum cost-share reimbursement for seedling cost will be calculated based on 726 seedlings/acre times the number of acres planted.
 - iii) The landowner may choose to plant either in the fall/winter or in the summer.
 - 1) If a fall/winter planting is chosen, the seedlings must be planted between November 1st and March 1st.
 - 2) If a summer planting is chosen, the seedlings must be planted between June 1st and September 30th. Containerized seedlings must be used for a summer planting of longleaf pine (bare root may be used for slash pine). The landowner must contact the County Forester within 5 days before the seedlings are delivered to confirm that soil moisture, seasonal rainfall trends, and extended forecast are favorable for a summer planting.
 - iv) The landowner must notify the County Forester when planting begins and is completed. If possible, the FFS County Forester will conduct a planting check during planting operations to confirm that the practice is being performed according to the specified standards. The FFS County Forester will conduct a planting check within three weeks after planting is complete. If at the time of inspection the practice does not conform to the specified planting standards, or there are fewer than 605 seedlings per acre, the FFS reserves the right to withhold payment for the practice.
 - v) The established stand must have a minimum of 400 live seedlings per acre at the time of a survival check conducted by the FFS County Forester in August-October following the winter planting season, or six to ten months after a summer planting as been completed. If this requirement is not met, the landowner must 1) replant or augment plant any acreage that does not comply with the minimum density requirement, or 2) repay the cost-shares associated with the non-compliant acreage to the state. Replanting or augment planting must be completed by March 1 of the year following the initial survival check.
- b) **Planting Standards:** Seedlings must be planted in the proper manner to encourage good survival and growth. The majority of the seedlings planted must adhere to the following standards:
- i) Furrow or planting bar depth must be the appropriate depth.
 - ii) The seedlings must be planted upright.
 - iii) The roots must be vertical with no "U" or "J" rooting.
 - iv) Seedlings must be packed tightly in the soil, so that they cannot be moved by pulling upward on three needles.
 - v) Longleaf pine seedlings must be planted following the specifications established by the Long Leaf Alliance (**Appendix 2**).
- c) **Species selection:** Some pine species, such as loblolly and shortleaf pine, are known to be more susceptible to SPB outbreaks. The primary species planted through this program will be longleaf pine, which is a less-susceptible species that was historically a dominant component of upland pine forests in North Florida. Slash pine (another less-susceptible

species) may be planted as an alternative on sites where that species is better-suited for optimal tree growth and survival, as determined by the FFS Forester. Such sites will be identified by 1) moderately to poorly-drained sites with the possibility of regular or occasional standing water, or 2) spodosol soil types. While slash pine can have adequate growth and survival on drier upland sites, only longleaf pine may be planted on such sites through this program.

- d) **Herbaceous weed control requirements:** In order to reduce competition and improve seedling growth and survival, landowners may choose to control herbaceous weeds (grasses and forbs) by band-spraying with an approved herbicide after the pine seedlings are planted. This is not a requirement, but landowners must indicate their intention to conduct this practice on the application form when applying, in order to receive cost-share assistance for the weed control treatment costs after it has been conducted.
- i) Herbicide treatments must be applied after the seedlings have initiated root growth; a small sample of planted seedlings should be pulled up to confirm that new roots have established prior to treatment. If the planting was completed between November 1st and January 31st, the herbicide treatment must be applied between March 1st and April 30th. If the planting was completed between February 1st and March 1st, the herbicide treatment must be completed between May 1st and June 30th. The herbicide treatment must be applied between 30 and 90 days following completion of a summer planting.
 - ii) The landowner should contact an herbicide applicator to determine the appropriate herbicide and application rate to use for the site. The County Foresters can provide a list of herbicide applicators in the area.
 - iii) The herbicide must be applied in a 4 to 6 foot band over the seedling rows. Broadcast treatments of the entire site are not eligible for cost-share assistance by this program.
 - iv) Herbicide treatments carry the inherent risk of injuring or killing pine seedlings. It is the landowner's responsibility to ensure that the applicator has properly calibrated the application equipment and is using an appropriate formulation and rate; if needed, the landowner should contact the FFS Forester to confirm that these are correct. To reduce the risk of seedling injury, the herbicide should be diluted in a high volume of water (at least 15-20 gallons per acre).
 - v) The applicator must apply the treatment in a manner consistent with all label requirements. Injury to the pine seedlings must be avoided or minimized. If excessive injury to the side seedlings occurs as a result of improper herbicide application, the FFS reserves the right to withhold payment for the practice.
- e) **Site preparation:** Although not eligible for cost-share under this program, site preparation should be performed where it is deemed necessary by the FFS Forester for the purpose of eliminating root and shoot competition from woody or herbaceous vegetation, or removing debris that would unduly interfere with the tree planting operation. To ensure effectiveness, the following conditions should be met:
- i) Herbaceous weed control or scalping treatments must eliminate all root competition on a strip at least 2-1/2 feet wide with the seedlings planted in the center of the strip. The scalped row may be two feet wide if the adjacent area is mowed.
 - ii) All harrowing, chopping, bedding, subsoiling or blade work should be completed at least six weeks prior to planting. If potential hardwood sprouting is significant on the site, these treatments should be performed between March 1 and September 30.

Where two of these treatments are used together, they should be spaced no less than six weeks apart.

- iii) Where possible, debris piles should be used instead of windrows.
 - iv) Controlled burning or mechanical site preparation performed in conjunction with an herbicide application should be conducted at least 90 days after the herbicide application, unless the mode of action of the chemical necessitates that these operations be performed in advance of the treatment.
 - v) Consideration should be given to maintaining soil productivity, preventing erosion, and minimizing costs.
- f) **Cost-share rate:** Payment for the successfully completed practice will be disbursed according to the per acre rates listed in **Appendix 1**. For both seedling and planting operation costs, original receipts/invoices of costs incurred must be retained and submitted with payment request.

E. Application and Program Procedure

- 1) The **landowner** obtains all of the following forms from a Florida Forest Service office or the FFS website (www.floridaforestservice.com):
 1. A copy of the **SPB Assistance and Prevention Program Technical Guidelines** (this booklet).
 2. A **Program Application** form.
 3. Information submitted for the **Substitute Form W-9**. In order to process your application and pay you under this agreement, the State of Florida - Department of Financial Services has advised that a completed Substitute W-9 is required. An online version can be completed securely at: <https://flvendor.myfloridacfo.com>. At that website, follow the following procedure:
 - Click where it says, “Not Registered? Click Here to Register”
 - Enter your name and contact information, enter a password of your choice, and click “Register”
 - An email will be sent to you along with a User ID and instructions on how to enter the W-9 information.
 - Return again to the website at <https://flvendor.myfloridacfo.com>, and click where it says “Click Here to Sign On”
 - Enter your User ID from the email and the password that you chose, and click “Sign-On”
 - Click where it says “Form W-9 Main Menu”, and follow the directions to enter your W-9 information. A second email will be sent to you, confirming that you have successfully completed the form.
- In the event you need it, a brief tutorial on using the website can be found at https://flvendor.myfloridacfo.com/w9_training.pdf.
4. **Please be advised that unless you do not have internet access, the information MUST be submitted online at <https://flvendor.myfloridacfo.com>.** For questions regarding W-9 requirements or if you are unable to submit this information online, please contact the Vendor Management Section at (850) 413-5519 or via e-mail at FLW9@myfloridacfo.com

5. **Note: in order to process your application and ensure that all future correspondence and/or payment will be sent correctly, please be sure that the name and address in your Substitute W-9 form information (entered online at <https://flvendor.myfloridacfo.com>) match those on your application form.** At least one telephone number must be given on the application form.
- 2) The **landowner** contacts the **forester** or natural resource professional of his/her choice to receive practice recommendations and/or with completing the application form and a tract map. **See Appendix 3 for requirements for tract maps. Maps of poor quality or that do not conform to all required map standards outlined in Appendix 3 will not be accepted.** If sub-standard maps are received, the FFS County Forester or landowner will be notified and required to submit an acceptable map before the end of the sign-up period in order for the application to be considered for the program.
- 3) The **landowner** requests a tract visit from a **FFS forester**, who verifies that the stand conditions meet the specific requirements for the proposed treatment (see stand requirements in Sections C and D), and that the treatment proposed is feasible. Both the **FFS forester** and the **landowner** sign the application form under the section labeled “Initial Project Approval.”
- 4) The **landowner** mails the signed application and tract map to the **program coordinator** at the Forest Health Section:

SPB Assistance and Prevention Program
c/o Jeffrey Eickwort
Florida Forest Service
1911 SW 34th Street
Gainesville, FL 32608

Applications must be received at this address during the specified sign-up period for the given fiscal year (see **Appendix 1**).

- 5) The **program coordinator** and program staff review the application materials and score the application for funding consideration using established rank criteria (see **Appendix 4**). At the end of the sign-up period (after all applications have been received and ranked), the program coordinator approves and signs all qualifying application forms, assigns a project completion date to each, and forwards them to the FFS Headquarters and the Division of Administration.
- 6) Once the application is approved by the Division of Administration and returned to the program coordinator as an executed contract, the **program coordinator** will mail duplicate originals of the contract/application, along with written notification of approval, to both the **landowner** and the **FFS forester**. These should be kept on file by both the forester and the landowner until project completion. The landowner should not begin implementing the practice until this written notification of approval is received.

- 7) If the application is denied by either the program coordinator, FFS Headquarters or the Division of Administration, the **program coordinator** will notify the **landowner** and **FFS forester** in writing explaining the reason for denial. Incomplete application packages will be returned.
- 8) After receiving written approval, the **landowner** is responsible for seeing that the approved practice is carried out according to all treatment and program requirements (see Sections C and D above). Practices must be completed by the completion date assigned by the program coordinator on the contract/application form. Upon completion of the practice, the **landowner** contacts the **FFS forester** to schedule a performance check.
- 9) The **FFS forester** revisits the property (bringing the application form) and verifies that the practice and target stocking level (if applicable) were achieved according to program requirements. The **landowner** shows the FFS forester documentation (original receipts and invoices) of all practice costs incurred, with total costs clearly indicated. If the First Pulpwood Thinning practice was conducted, the **landowner** must show the **FFS forester** the scale tickets (or other documentation) from the pulpwood sale to verify the volume of wood (in tons) harvested from the stand. Tons of pulpwood harvested must be recorded on the contract/application form.
- 10) If the practice has been satisfactorily completed, the **FFS forester** verifies that the remaining items on the contract/application form are filled out correctly (including total acres treated, tons of pulpwood harvested or total cost incurred, and final payment requested). Any changes from the practices indicated on the original contract/application and map, such as a reduction in acres treated or planted, must be clearly illustrated on an updated map that meets the map preparation guidelines detailed in Appendix 3. The **landowner** and the **FFS forester** sign the form under the section labeled “Final Payment Approval.” The **landowner** mails the original contract/application, along with all receipts, invoices, and the updated map (if applicable) to the program coordinator at the address in #4 above. Scale tickets do not need to be forwarded, only viewed by the FFS forester for verification of volume. **Note:** If the forester determines that the practice has not been completed satisfactorily (e.g. excessive crown scorch or trunk wounding, improper residual stand stocking, etc., see practice requirements in Sections C and D), the forester can request a site evaluation from the Forest Health Section to determine if partial or complete deduction of cost-shared acreage is warranted.
- 11) The program coordinator reviews documents and, if approved, forwards the necessary information to the Division of Administration for processing of payment. After processing, the Department of Agriculture and Consumer Services will issue a check to the landowner. Payment will not exceed the maximum cost share limits established for each practice or \$10,000 per state fiscal year.

F. Funding Availability and Priorities

The SPB Assistance and Prevention Program is supported by limited federal grant funding. All applications received during the sign-up period will be evaluated and ranked to determine which applications can be approved with the available grant funds. Applications that meet all of the eligibility and program requirements will be evaluated for funding based on established criteria outlined in **Appendix 4**. A total point score will be assigned to each application based on these criteria. Applications will be prioritized for funding by ranking scores from highest to lowest. Tie scores will be ranked by random order. If a submitted application cannot be approved due to insufficient funds, the landowner will receive a letter from the project coordinator indicating 1) that the application has been placed on file, and will be funded according to the above ranking criteria once more funds become available, or 2) that the program has been discontinued indefinitely and if it is re-instituted, landowners will be required to re-apply.

G. Failure to Complete a Practice

If a landowner anticipates that he/she will not complete the approved practice prior to the completion date specified on the application form, but still intends to install the practice, he/she must notify the program coordinator, Jeffrey Eickwort, **in writing no later than 30 days before the original completion date and request an extension**. This request letter should include the landowners name, contract number, and a well-justified reason the practice could not be completed on time. The program coordinator, in turn, will review extension requests and may grant a new completion date not to exceed 6 months past the original completion date. A landowner requesting an extension will either be sent 3 hardcopies of a contract amendment for signature, or will be informed that the extension could not be granted. If the amendment forms are sent to the landowner, they must be signed by the landowner and sent to the address indicated. The extension will not be approved until and unless the contract amendment forms are signed by both the landowner and the DACS Director of Administration. If approved, a signed copy will be returned to the landowner. **NOTE: Extensions are not guaranteed** and in some years may not be available at all due to limited grant duration. In order to ensure payment, landowners should complete the practice by the original completion date assigned.

Landowners with incomplete practices who do not request an extension by 30 days prior to the original completion date on the application form forfeit claim to payment for those practices. Funds for those practices may be re-allocated for other applicants.

If, at any time before the expiration date, the landowner knows for certain that he/she does not intend to complete all approved practices on the application, he/she should notify the FFS forester. The FFS forester should write the word CANCELED across the top of his/her copy of the application form and send it to the program coordinator. Funds for cancelled practices may be re-allocated for other applicants.

H. FFS Foresters: Time Accounting and Forest Stewardship

Foresters should record all time spent on activities related to this program in the appropriate FFS time accounting system (e.g., CARS). Choose “SPB” as the Federal Program designation and “Cost Shared Plan” as the CARS Activity. Foresters should also encourage participating landowners to also participate in the Forest Stewardship Program and have a stewardship plan developed for their property. Landowners who have a current (prepared within the past 5 years) multi-resource management plan (such as a Forest Stewardship Plan, Tree-Farm Plan, or consultant-prepared forest management plan), or who commit to having such a plan developed or updated, should indicate this on their application. These landowners will receive associated points in the scoring process for funding prioritization (**Appendix 4**).

I. Florida Forest Service Offices and More Information

To contact the FFS county forester or FFS office nearest you, consult the state government section of your phone book, or visit the web at www.floridaforestservice.com. For more information about the Southern Pine Beetle, visit the Forest Health Section under “Forest Management” on the FFS web site listed above. Also, ask for the brochure “Manage Your Forest to Prevent Southern Pine Beetle” from your local FFS office.

Appendix 1.

A. SPB Assistance and Prevention Program Sign-Up Dates

The beginning and end of the sign-up period will be announced on the program website at www.floridaforestservice.com/forest_management/fh_insects_spb_prevention_program.html. Applications for the program must be **received** by the Florida FFS Forest Health Section office **in Gainesville** between the start and end times listed on the website. Applications **postmarked** by the end date will also be accepted. The address is:

SPB Assistance and Prevention Program
c/o Jeffrey Eickwort
Florida Forest Service
1911 SW 34th Street
Gainesville, FL 32608

Applications received in Gainesville before the start date, or received (or postmarked) after the end date will not be considered, or will receive lowest priority ranking for any remaining available funds. All applications received at any time during sign-up period will be equally evaluated and ranked for funding approval using established criteria (**Appendix 4**).

B. Practices and Cost-Share Payment Rates

Practice Category	Cost-share payment rate:
1. First pulpwood thinning	\$50/acre
3. Prescribed burning	\$15/acre
4. Mechanical underbrush treatment	\$25/acre
5. Seedling establishment	
a. Containerized Longleaf Seedlings	\$80 / 1000 seedlings
b. Bare root Longleaf Seedlings	\$40 / 1000 seedlings
c. Bare root Slash Seedlings	\$22 / 1000 seedlings
d. Planting (machine or hand)	\$40/acre
e. Post-planting herbicide weed control	\$25/acre

Appendix 2. Keys to Successfully Planting Longleaf Pine

Container or bareroot? Containerized seedlings typically have a higher survival rate than bareroot (20% higher on average); are easier to hand plant; store better and for longer periods; and have a wider planting window. Bareroot seedlings have a lower cost per purchased seedling; tolerate deeper planting typical of traditional machine planting; and have a better root structure when properly planted.

There are several factors that come into play when making the containerized/bareroot decision. Do you want the seedlings planted in very straight rows with exact spacing? If so, you probably want your seedlings machine-planted. Bareroot seedlings are well suited for machine planting on intensively site prepared land. On most sites, machine planting bareroot will yield better depth control and better survival than hand-planting bareroot seedlings. Will you accept less than exact spacing and rows that are not quite as neat and straight? If so, hand planting containerized seedlings may be the best route for you.

Longleaf pine can be successfully planted using either bareroot or containerized seedlings if the proper care and techniques are applied. Repeated planting failures are generally the results of planting mistakes. Two common reasons for longleaf planting failures are: 1) Incorrect planting depth (generally too deep), and 2) Planting in established grasses (especially bermuda grass or bahia grass).

When purchasing bareroot seedlings consider the following:

- Seedlings should have been undercut and laterally root-pruned at least once in nursery beds.
- Should have at least six primary lateral roots and a highly fibrous root system with numerous feeder roots.
- Seedlings should be 0.4-inch in root collar diameter or larger.
- Roots should be moist but not too wet. A dry root system means a dead seedling.
- Seedlings should have healthy foliage and no evidence of disease problems.

Seed Source Selection: It is best to plant seedlings grown from a local seed source. Most seed sources are from Coastal Plains seed production areas. In general, seed can be moved up to 100 miles north of the seed collection area.

Choosing a Tree Planting Contractor. This is one of the most important decisions you will make. Many planting failures can be traced to improper seedling handling and planting procedures by the planting crews. Make sure you pick the right contractor for the job. Choose one that has experience in successfully planting longleaf pine. Ask for references. Do not make your decision based upon per/acre cost of planting the seedlings. Paying \$5-10.00 per acre more for a good, reputable contractor may mean the difference between a successful planting, or buying more seedlings and replanting the following year. Make sure your contractor and seedlings are compatible. If you line up a contractor whose only experience is planting containerized seedlings, don't buy bareroot. If you purchase bareroot, find a contractor who has been successful with bareroot. A vendor listing for tree planting contractors can be found at: <http://tlhforweb03.doacs.state.fl.us/fsvd>

Maintain Oversight of the Planting Operation. You or your representative should be on site with the planting crew to ensure that the operation meets your quality standards. You may want to hire a forestry consultant to manage or procure the contractor and planting job. Some foresters are knowledgeable about longleaf. Some are not. For assistance on this matter, contact your Florida Forest Service [County Forester](#). The vendor listing [link](#) in the previous paragraph also lists many of the available consulting foresters.

Rules of Thumb for Best Results:

- Plant early in the season; trees planted before Christmas tend to have better survival and growth rates than late planted seedlings. In some parts of Florida, frequent precipitation may allow planting in the summer months.
- Do not plant in dry soils. Wait for adequate rain to wet at least the rooting zone (upper 6 inches of soil). You may plant as early as October provided the soil is moist. [**Note:** the SPB Assistance and Prevention Program requires seedlings be planted between Nov. 1st and March 1st for a summer planting, or between June 1st and September 30th for a summer planting]
- High winds and low humidity associated high pressure-cold fronts may dry out exposed bareroot seedlings roots, potentially leading to high mortality rates if extra care is not taken.
- Plant seedlings soon after delivery. Try to have all bareroot planted within one week of lifting from the nursery. Don't waste your money buying leftover bareroot from other planting jobs. Containerized seedlings will store better, but the sooner they are planted the better.

- Always protect bareroot seedling bundles and boxes of container seedlings from freezing, excess heat, and exposure to the sun and wind.
- Bareroot seedling roots should be exposed to the sun and air for as little time as is absolutely necessary. **Never** wash or prune the roots of bareroot longleaf seedlings as these procedures will reduce survival.

Planting longleaf on sites with bermuda grass or bahiagrass. It is critical to kill bermuda grass or bahiagrass **prior** to planting. These grasses are much more difficult to control after planting and chemical control options are severely restricted. For best survival in pastures, broadcast spray grasses in August prior to planting with one of the following either A) 5-6 qt. of Accord®/acre, or B) 3 quarts Accord & 2 oz. Oust/acre, or C) 20-24 oz. Arsenal®/acre. Follow your chemical site preparation with a scalping site preparation. In bahiagrass, a scalping site preparation may be more effective than a chemical site preparation. On most agricultural sites, scalping the area may be more beneficial than any other single treatment. For information on herbicide applications, contact your [county forester](#).

To Rip or Not to Rip. Many agricultural fields and pastures have a hard, restrictive soil layer referred to as a ‘plow pan or hardpan’. In such cases, “ripping” or “subsoiling” will fracture the hardpan resulting in better planting conditions. Seedling root growth will also be greater resulting in better seedling growth. Ripping should be done several months prior to planting, as several rain events are necessary to settle the soil to eliminate air pockets. Rip with the contour of the land to avoid unnecessary erosion. Seedlings should be planted about 6” to the side of the rip. Do not plant directly in the rip because water will frequently use the rip as a channel, uncovering some seedlings and burying others. The taproot of the longleaf will find the rip and allow the seedlings to root deeper, thus minimizing the chance of wind-throw and increasing water availability to the tree.

Planting Hints: When planting pastures or undisturbed soils that will not erode, plant seedlings so that the root collar is directly at the soil surface. When planting cropland or other areas that have been heavily site-prepared, plant seedlings so that the root collar is about ¼ - ½” beneath the soil surface. Try to anticipate how much the soil will erode so that the root collar will end up at the soil surface. Planting too shallow will result in a seedling that dies quickly. Planting too deep will result in a seedling that dies slowly. Good compaction is needed to eliminate air pockets around seedling roots. Heavy-duty machines do a better job of packing than the typical hand planting crew.

Hand Planting Tools: Use the correct tool when hand-planting. Bareroot seedling roots are very large so planting shovels work best in opening a planting hole large enough to accommodate the root system. Many containerized seedlings have tools designed especially for their plug size. Using the correct tool will result in less root deformation, better survival, and better long-term growth.

Join the Longleaf Alliance and receive current information on the management of longleaf pine.

Longleaf Alliance
3301 Forestry & Wildlife Sciences Bldg.
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www.longleafalliance.org

Appendix 3.

Map Preparation Guidelines for Florida Forest Service Programs

The Florida Forest Service (FFS) administers a variety of forestry assistance cost-share programs for the benefit of private landowners in the state. Examples of such programs have included, but are not limited to, the Forest Lands Enhancement Program (FLEP), Forest Lands Recovery Program (FLRP), and the Southern Pine Beetle Prevention Program (SPB). In order to apply for a program, applicants must submit an application and other supporting documentation, including a map or maps of the property and/or practice area.

Applications without maps or with maps that do not sufficiently meet the requirements stated on the application risk being disqualified or delayed during the application approval process. Such a delay can result in a lack of funding for the applicant. Maps of poor quality or that do not conform to all required map standards outlined will not be accepted. If sub-standard maps are received, the FFS County Forester or landowner will be notified and required to submit an acceptable map before the end of the sign-up period in order to be considered for the program.

In an effort to avoid these disqualifications and delays, FFS foresters are required to use a standardized map template that provides all of the information required by the various programs. In order to facilitate this process this document is being developed to assist in the mapping component of the application and provide specific instructions, template, and tips and tricks during the mapping process. These mapping requirements apply to all maps for Forest Service cost-share programs but do not apply to Stewardship or general forest management plans.

Cost-share Application Maps will consist of an aerial image of the property, property boundary, practice area boundary, and a legend or labels that indicate the acreage and activity(ies) to be conducted. Maps prepared by non-FFS individuals (e.g., consulting foresters, landowners, etc.) must also conform to the guidelines stated below to ensure a smooth application process.

Required Mapping Elements

Sample maps are shown below with the required components numbered. Each component is discussed in more detail in a corresponding numbered paragraph. Although it is not necessary for a map to use the exact same format or “look” as the ones below, it must contain all of the following components:

1. Scale - A map scale can be provided either as a graphic scale bar (as shown on the sample map) or as a ratio (e.g., 1:24,000). Most FFS programs do not require use of a specific scale provided that the scale is sufficient to show the property, practice area, and other important features clearly. *Note: When a ratio scale is used, any resizing of the map by fax or reproduction will nullify the ratio. It is therefore recommended to use the graphic scale bar which will be resized along with the map and remain relatively accurate.*
2. Title - Each map should have a title consisting of the landowner’s name and tract name, if applicable.
3. Author - The name, initials, or other identifier of the person who made the map should be included on the map. This is important if questions arise about the map or if edits or additional information is required.
4. North Arrow - Most maps are oriented north-up. However, it is sometimes necessary for the map image to be rotated in order to fit it on the page. Because of this possibility, it is very important that each map contains a text or graphic symbol to indicate the direction of north.
5. Dates – All maps must include the date they were created. If digital imagery is used, the map should also include the source and year of the imagery (if known). Active management or natural disturbance can dramatically change the appearance of the landscape. This will provide valuable historical information about the management that has taken place on the property over time.
6. Property boundary - The property boundary need **not** be survey accurate. Property lines based on parcel data, ground reconnaissance or other credible sources are sufficient.
7. Disclaimer - Given the probability of property line error, all Forest Service produced maps are required to have an approved disclaimer included on it. A basic disclaimer is included as part of the map templates provided by the CFA Section. Alternate version may be found on the FFS GIS intranet site. Disclaimers are recommended, but not required for maps produced by private sources.

8. Stands or Practice Areas - Clearly delineate and label the stands or areas where proposed practices will be implemented. Practice areas should be delineated by their boundary only with no fill color or pattern. This will prevent the aerial image beneath from being obscured. Maps are often reproduced or copied in black and white so it is important to use colors and line patterns that will remain apparent after reproduction.
9. Acreage – Pertinent acreages should be included for property ownerships, stands, and/or practice areas shown on the map. Acreage may be indicated in the title bar, legend, text boxes or any other appropriate location on the map. Practice area acreage must match the acreage on the cost-share application form.
10. Access - Your map should show local roads used to gain access to the property and practice area. *Note: A person unfamiliar with that area of the state should be able to use the map to locate the property.*
11. Geographic location – Maps should include the Section(s), Township, and Range (STR) and the latitude and longitude (in decimal degrees) of the property. These will provide additional location information and will also be required to obtain any prescribed burn authorizations that may be needed for the property.
12. Location Map – All FFS programs require a location map, either as an inset map (as shown) or as a separate map, to aid in identifying the property location. The scale of the location map should be as large (zoomed in) as possible while still showing nearby landmarks such as cities or major highway intersections. Someone unfamiliar with that area of the state should be able to navigate to the practice area using the two maps.
13. Aerial Imagery – All FFS maps submitted with cost share applications will have an aerial image as a background. This image may be lightened or made semi-transparent to improve the visibility of other graphics, but should still be clear enough to show the details of the landscape.

Sample Map #2

This map demonstrates an alternate way of symbolizing and labeling features on a map. It will sometimes be necessary to symbolize practice areas with both polygons and points. The scale of your map will determine how small a polygon can be before it is better represented as a point. Each location should be labeled with its size, with a total treatment acreage provided elsewhere on the map. It is critical that the total treatment acreage match the acreage stated on the application (rounded to the nearest whole acre).



Appendix 4.

Scoring Criteria for Funding Prioritization

1. **Type of Practice Requested.** Scores will be assigned to applications based on the type of practice requested. If two practices are requested, the score will be assigned based on the practice with the highest point total

First Pulpwood Thinning:	
Loblolly or shortleaf pine*:	30 points
Other pine species:	15 points
Seedling Establishment:	25 points
Prescribed Burning:	20 points
Mechanical Underbrush Treatment	15 points

*stand must be $\geq 50\%$ of these species by basal area or density

2. **Previous Funding Through the SPB Prevention Program.** A score will be assigned based on how recently a landowner has received funding through the program.

Not funded in the preceding 2 sign-up years:	20 points
Not funded the preceding sign-up year:	10 points
Funded the preceding sign-up year (or has an open contract):	0 points

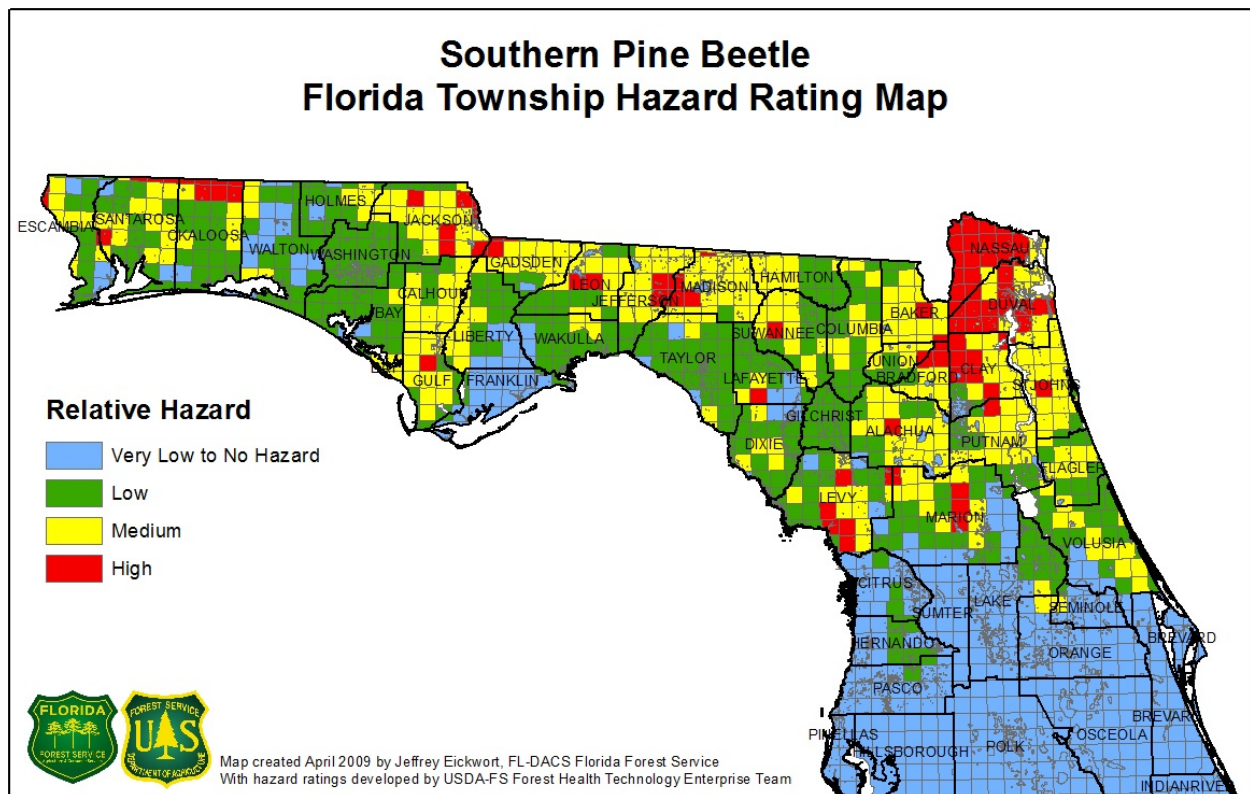
3. **Forest Management Plan.** Applicants who have a current (prepared within the past five years) multi-resource management plan (such as a Forest Stewardship Plan, Tree-Farm Plan, or consultant-prepared forest management plan) for the property on which the proposed practice(s) is(are) to be implemented will receive a higher score than those who do not have such a plan. A copy of the plan must be on file with the FFS County Forester to qualify for the highest score. Points are also given to those who do not have a current plan but are willing to commit to obtaining one or updating their old plan.

Forest Stewardship or other multi-resource management plan prepared within the last 5 years and on file with County Forester:	10 points
Commitment to obtaining such plan or updating old plan:	5 points
No current multi-resource plan and no commitment to obtaining or updating:	0 points

4. **Township SPB Hazard Score.** All practice stands will be located on the SPB Florida Township Hazard Rating Map (see **Appendix 5**) and scored according to the relative hazard level of the township in which the proposed practice(s) is(are) to be implemented. If the application includes practices that are to occur in more than one township, the score will be based on the township with the highest hazard rating.

High Hazard:	15 points
Medium Hazard:	10 points
Low Hazard:	5 points
Very Low to No Hazard:	0 points

Appendix 5.



The Southern Pine Beetle Florida Township Hazard Rating Map is based on a model developed by the USDA Forest Service – Forest Health Technology Enterprise Team as part of a hazard mapping project for the southeastern United States. The model computes hazard scores based on input variables that estimate the density and basal area of the most susceptible host pine species (e.g., loblolly and shortleaf pine) and soil drainage characteristics. Each township score represents an average for the forested areas within the township. The hazard map is subject to change from year to year with changing forest conditions and improvements made to the hazard model. Hazard is an estimate of where SPB infestations may be likely to develop based on forest conditions; it does not mean that SPB infestations are predicted for a certain area in a given year.

Appendix 6.

Template invoice for documenting expenses when landowner conducts practice using own labor and/or equipment

Landowner Name: _____

Address: _____

SPB Assistance and Prevention Program Contract Number: _____

Management practice(s) associated with this invoice: _____

Equipment Use

Date	Type of Equipment	Time		HR : MIN	Rate	Amount
		Start	End			

SUBTOTAL:\$ _____

Labor

Date	Name of Laborer	Time		HR : MIN	Rate	Amount
		Start	End			

SUBTOTAL:\$ _____

Fuel and Oil

Date	Type of fuel, oil, fluid, etc.	Gallons or quarts used	Rate	Amount

SUBTOTAL:\$ _____

Other Expenses

Date	Item	Units	Rate	Amount

SUBTOTAL:\$ _____

TOTAL EXPENSES:\$ _____

This invoice accurately represents the expenses I incurred during the implementation of the management practice(s) indicated above. I understand that invoices for additional work performed by contractors, the Florida Forest Service, or other entities should also be submitted, if applicable.

Landowner Signature: _____ Date: _____