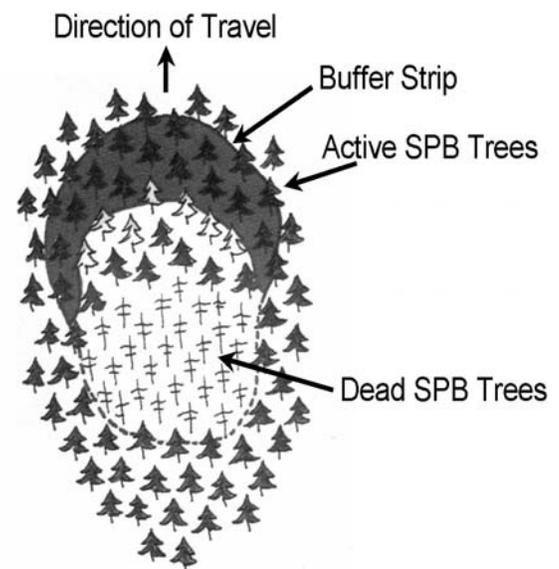


Southern Pine Beetle Control Methods

Southern pine beetle (SPB) control requires integration of three recommended techniques: salvage, cut and leave, and pile and burn. Control should be a year-round project; but winter control is especially important because brood densities tend to be higher and concentrated in fewer trees. Control of one infested tree during winter months may prevent 10 trees from infestation the following spring.

SALVAGE: When infestations occur in easily accessible merchantable trees, remove infested trees **IMMEDIATELY**. Promptly process infested material at nearby mills to minimize spread of SPB infestations. Chipping or burning should destroy infested slabs and bark. Encourage use of infested trees first. If logs will be on the log deck for several days, spray them with approved pesticide.

Success in salvage control depends on removing all pines with fresh attacks and those with developing beetle broods. The best insurance is cutting a buffer strip of uninfested green pines around the active head of a spreading spot to interrupt the beetles' attractant source and stop their advance. The buffer strip also provides a margin for error, in case infested pines were initially overlooked.



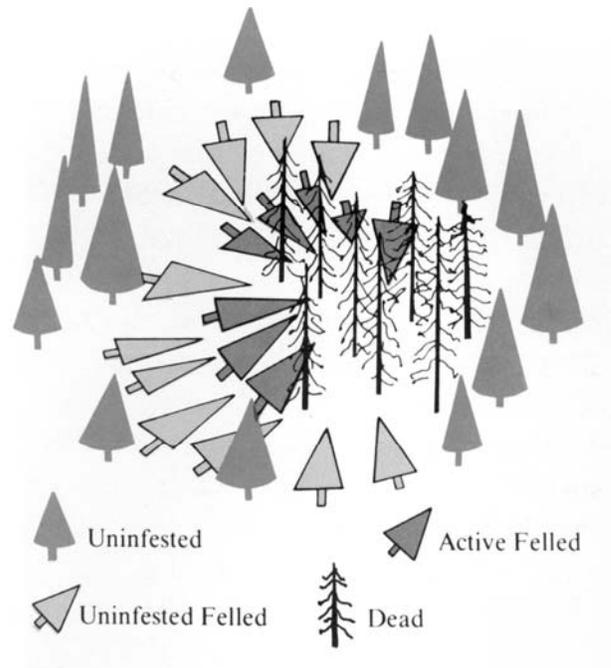
- **WIDTH OF STRIP** - Make width equal to height of infested trees, e.g., when infested trees are 65 feet tall, cut the buffer a width of 65 feet.
- **MARKING THE BUFFER** - Start marking buffer strip from freshly attacked green pines and continue into the green, healthy pines.
- **CUTTING** - Start with outermost green pines and cut back towards old, dead, vacant pines (very loose bark removed easily). There is no need to cut dead trees. Cut only green, freshly attacked pines and pines with developing broods. In summer, these are green, fading, and red-topped trees.



CUT AND LEAVE: As in salvage control, the cut and leave control method removes all pines with fresh attacks and those with developing beetle broods using a properly designed buffer strip. The same guidelines for the width of the buffer strip and beginning of the buffer strip apply. In the cut and leave method, infested trees and the buffer trees are felled into the center of the spot.

PILING AND BURNING: Cutting infested trees, piling stems and thoroughly burning the bark may suppress unmerchantable or inaccessible SPB infestations. The entire bark surface of infested trees is thoroughly burned to insure effective control. Follow the procedures below to pile and burn.

- Identify and mark SPB-infested trees.
- Fell and pile all trees in center of infested area.
- Burn until all infested bark is thoroughly charred.
- Do not burn if it is unsafe or will promote significant soil erosion.
- Check carefully to ensure no green infested trees are overlooked.
- Check for breakouts and treat them as needed.



CHEMICAL CONTROL: For advice on chemical use, contact a forester certified as a pesticide applicator. Spray only spots inaccessible to salvage.

Cut all infested trees into workable lengths. Wet entire bark surface thoroughly (to the point of runoff) with a coarse spray from a low-pressure sprayer. Turn logs two or three times to insure all surface is wet.

Spray infested stumps or trees damaged by salvage crew. Cut and spray unmerchantable infested trees. Fell infested trees toward the center of the spot. Spray tops only if they are infested. Never spray trees from which beetles have emerged. This allows natural enemies to complete their development.

EPIDEMICS: The Alabama Forestry Commission recommends the following during SPB epidemics:

- **CONTROL PRIORITIES** – Control the largest active infestations first using any control measures available at your disposal—salvage, cut and leave, or pile and burn. All control measures should include a buffer of green uninfested pines. Closely examine pines and determine which are infested; start the buffer strip at that point. Generally, buffers equal to the height of the pines are sufficient BUT with drought conditions and high populations, buffers of double the height should be used.
- **THINNING** – DO NOT thin pine stands during major epidemics. At least three things happen if pines are thinned during an epidemic: 1) Damage to standing pines causes pines to “bleed” sap attracting beetles and causing additional infestations, 2) Logging crews that should be controlling

active infestations will be tied up on thinning and 3) The seller will receive only salvage value, which can be 50% to 75% of normal stumpage.

- **ROAD BUILDING** - Limit or delay road building in pines stands during an epidemic. If the road must be built immediately, spray damaged pines and pines adjacent to the road with a pesticide.
- **UTILITY RIGHTS-OF-WAY TRIMMING** - Cease all trimming of rights-of-way pines in epidemic counties until the epidemic is over.

TAX CONSIDERATIONS: According to the Internal Revenue Service, SPB losses to commercial timber stands do not qualify as a casualty loss. By IRS definition, a “casualty loss ” must result from an identifiable event “sudden, unexpected or unusual in nature.”

Premerchantable stands destroyed by SPB may qualify for a casualty loss deduction, although it is limited to the “adjusted basis” minus any compensation received—such as through insurance. If the landowner took advantage of the tax credit and amortization when the stand was established, and claims a casualty loss for the premerchantable timber, then credit and amortization may be subject to recapture.

Probably the best way to deal with young plantations destroyed by drought or SPB is to re-establish them and claim the 10% reforestation tax credit and 7-year amortization on the re-establishment costs. If the landowner took advantage of the credit and amortization when establishing the original stand, it is possible to continue to amortize the original establishment costs, and the re-establishment costs up to a maximum of \$10,000 annually. In this case, the landowner would have two amortization schedules and will claim the tax credit twice (on the investment—not the stand.)

For commercial timber trees lost through drought and SPB, some costs may be recovered by the adjustment occurring in the “timber depletion unit.” This spreads less volume over the adjusted basis resulting in a higher timber depletion unit. However, if the landowner sells timber to salvage it, the timber depletion amount is deducted on a per-unit basis. If sale proceeds exceed the adjusted basis (determined by the depletion unit), the landowner ends up with a taxable gain.