



# FORESTRY

## Leaflets

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### **Precommercial Thinning Contract Considerations**

When a stand of trees regenerates naturally from seed sources or stump sprouts, often the outcome is too many tree seedlings are produced, or the seedlings are not evenly spaced across the tract. The resulting thicket of under-sized trees will require substantial time to become a healthy or high-quality forest. In this situation, a precommercial thinning can remove a defined amount of the new trees, thereby providing more ample growing space, sunlight and soil nutrients for the remaining trees and reducing the amount of time required to grow a quality and healthy forest.

Precommercial thinning, sometimes abbreviated as PCT, can be applied to either pine or hardwood stands with success. In pine stands, a PCT can be very effective in preventing catastrophic loss of pine forests from infestations of Southern Pine Beetle. These beetles thrive on pine stands that are too dense, which weakens the pine tree's biological systems that would otherwise be able to ward off an attack by the beetles. In hardwood stands, a PCT can remove poorly formed or undesirable species of trees.

For a few years immediately following a PCT, the resulting build-up of dry, woody debris may increase the wildfire risk. Additional fire prevention precautions should be taken during these successive years. However, about 4 to 5 years following the PCT, this debris naturally breaks down, reducing the fire hazard.

While the costs of paying for PCT may at first seem high, evidence has shown that investing in a PCT will almost always reap benefits with enhanced tree vigor, improved forest health and shorter time to produce quality timber. Consulting foresters can estimate the cost of PCT and may be able to arrange for the work to be done. As in any case when you hire someone to conduct work on your forestland, it is recommended to have a written contract and retain records of the work being done. The contract should be prepared or have been approved by an attorney; doing so will protect you and the contractor. Consider these provisions for a PCT contract:

#### **Start Date and Termination Date of Agreement.**

Include provisions for time extensions, if desired.

#### **Names and Addresses of Landowner(s) and Contractor(s).**

Include anyone who has your expressed authority to speak on your behalf, if you are not available.

#### **Assignment of Contract.**

Establish whether or not the landowner or contractor has the right to assign the contract to another and if so, specify the terms of assignment.

#### **Arbitration of Disputes.**

Generally, the landowner and the contractor each identifies one person to arbitrate on their behalf, and these two designated individuals then agree upon a third-party to settle the dispute.

#### **Tract Location.**

Describe the area to be thinned, including estimated acres and boundary identification of the area to be thinned, as well as the entire property tract. A map should also be provided that shows the area to be thinned and include important features such as streams, roads or fields.

**Right and Location of Ingress and Egress.**

Landowner should guarantee the contractor the right to ingress (enter) and egress (exit) the property for the purposes of thinning the trees. There should also be an understanding of where this access will be provided on the property and who is responsible for improvements or repairs. Also state if prior notice to the landowner is needed before starting and finishing work.

**Acceptable Type of Tools.**

State what tools are acceptable to be used for the PCT work and whether or not mechanized vehicles are acceptable. In most situations, the PCT work is done by use of chainsaws or other hand-held cutting tools. However, the use of small tractors with a grinder or mower attachment may be appropriate in excessively thick stands.

**Thinning Pattern.**

Identify how it will be determined which trees are to be removed and which are to be kept. In some cases when PCT work is done on pine stands, thinning the stand in a row-pattern makes sense for future harvest access. In hardwood stands, the PCT work is usually done on a tree-by-tree individual select basis, instead of cutting out of rows.

**Which Trees to Cut or to Keep.**

The contractor needs to know what size of tree(s) to remove, and/or what size of tree(s) to leave standing. This may be communicated by stating that all trees that are less than a certain diameter, or less than a certain height be removed, as long as the number of remaining trees is adequate to not create large openings on the tract. Poorly formed trees or diseased trees should be removed, in favor of vigorous and well-formed trees.

- When PCT work is done on a hardwood stand, the selection of which species of trees to cut, or retain, is extremely important to recognize the financial, aesthetic and/or wildlife value of the many different types of hardwood species. Consult with a forestry professional to help you with this prior to PCT work.

**Number of Trees to Retain.**

Establish the number of trees per acre that should be retained on the tract as a result of the PCT work. Depending on a landowner's forest management goals, the remaining number of trees should usually be within a range of 300 to 500 trees per acre. Consult with a forestry professional to help you with this prior to PCT work.

**Disposal of Felled Trees.**

Specify how the felled trees will be disposed of, or if they are to be left in-place, as they are felled. If the debris will be piled, specify where the piles should be established. Do not pile debris immediately next to a standing, live tree.

**Damage to Other Trees and Property.**

Describe how to reconcile damage of the residual trees in the thinned area, or damage of trees that are located outside of the PCT area. Explain what the expectations are for the use, improvement, maintenance and repair of roads, bridges, culverts, gates, fences, ditches, buildings, utility lines or other infrastructure on the property.

**Working Conditions.**

Designate any specific areas that are prohibited from access during PCT work, such as roads, trails, fields, pastures or other areas. Designate acceptable hours of operation and if prior contact is needed to access the property. Specify when and how trash/garbage should be collected and disposed. Determine when PCT will cease as a result of poor weather or inoperable site and soil conditions, and define those site/soil condition thresholds.

**Contract Price, Method of Payment and Payment Terms.**

State the agreed-upon price(s) for services. Explain how payment will be made, usually based upon the size of the area to be thinned. State when payments will be made to the contractor, and define any penalties for late payments.

**Cost-Share or Performance Requirements.**

If the landowner is receiving cost-share payment assistance for the PCT work, there will be several stipulations and requirements from the program that funds the cost-share. Specify these requirements for the contractor and the expectations for performance of the PCT work. A final determination of acres that are thinned may have to be done by the N.C. Forest Service.

### Measures to Protect Water Quality.

Identify streams, wetlands or other bodies of water in the thinning area and how those water bodies are recognized on the ground. Cite requirements to comply with all applicable state and federal water quality regulations, including the establishment of streamside management zones (SMZ's) if needed, and compliance with the other regulatory standards defined by the N.C. *Forest Practices Guidelines Related to Water Quality* (FPG's), and compliance with other applicable water quality rules or laws. Designate if stream or ditch crossings will be needed to thin the trees, including the location and number of crossings. Specify who is responsible for erosion control stabilization and rehabilitation during PCT work and at what point the contractor is free and clear from further stabilization responsibilities. **NOTE: If the landowner is receiving cost-share payment assistance for the work, the appropriate forestry Best Management Practices (BMP's) need to be implemented.**

### Measures to Protect Wildlife Habitat and Recreational, Cultural or other Resources.

If desired, specify what actions are to be taken to protect identified wildlife habitat, recreational resources or cultural resources. Wildlife habitat measures may include retaining dead standing trees (called "snags"); retaining certain nut or berry-producing trees; and/or creating loose piles of brush that provide refuge cover for wildlife.

### Fire Protection.

The contractor should be required to comply with all fire laws and immediately suppress any fire that is a result of the PCT activity. Specify liability of damaging property, trees, and crops that may result from the fire.

### Performance Bond and Financial Responsibility of the Contractor.

The landowner may choose to require the contractor to post a bond before beginning PCT work. Specify if the bond is refundable, and if so, whether any interest will be paid. The contractor should be compelled to carry liability insurance, workers compensation insurance, and property/casualty insurance. The landowner may wish to require that the contractor produce proof of valid insurance coverage prior to allowing any work to occur.

### Signatures and Notarizations.

Includes landowner and contractor. If land is co-owned, then all landowner parties may be required to sign the contract.



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Photos of PCT applied to a pine stand (left), and examples of the sizes of trees that were thinned (right).