



North Carolina
Forest Service

FORESTRY Leaflets

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Benefits of Prescribed Burning

Prescribed burning (also known as ‘controlled burning’) is an important forest management tool that may be appropriate to use throughout the life cycle of a stand of trees. Some of the more frequent and beneficial uses of prescribed burning are briefly outlined in this leaflet. While prescribed burning historically is a low-cost forestry practice when compared to other management treatments, cost-share payment assistance may be available in some cases. Prescribed burning: (1) must adhere to the burn permit laws; (2) should only be conducted by a qualified professional; and (3) should occur during days in which the weather and air conditions are favorable. To learn more, contact your County Forest Ranger.

Site preparation (‘site prep’) burns

- Removes excessive woody debris and undesirable vegetation to make room for natural regeneration or planting tree seedlings.
- Woody debris may be piled and then burned. If the woody debris substantially covers the entire tract, the material may be burned while in-place (referred to as ‘broadcast burned’).
- Site prep burns may be conducted prior to tree planting as a follow-up to a herbicide treatment that inhibits undesirable or competing vegetation.
- Burns are usually performed during late spring or summer.

Hazard reduction burns

- Conducted within a stand of existing timber, usually pine timber. In stands of hardwood timber, seek advice from a forestry professional to determine if burning is suitable.
- Reduces the fuel-load of understory trees, shrubs, vines, leaves and needles to limit the potential hazard of wildfire in a controlled manner.
- Allows increased sunlight to reach the ground, which promotes fresh growth of low-growing shrubs, native grasses, and herbaceous plants that benefit wildlife.
- Burns are usually performed in late fall or winter to take advantage of lower air temperatures, increased humidity and adequate soil moisture. Sometimes burns are even performed at night.

Silvicultural / Ecological (‘warm season’ or ‘growing season’) burns

- Intended to mimic natural fire occurrence during the growing season in a stand of existing timber. In fact, some tree species (longleaf pine, pond pine) require frequent prescribed burns to establish and thrive.
- When managing pine timber, this type of burn can control and inhibit competing hardwood trees.
- Burns may naturally kill weakened or diseased trees, thereby allowing more growing space for the remaining healthier, vigorous crop trees in the timber stand.
- Must be conducted carefully as there is usually a greater potential to damage or scorch the residual overstory stand of timber.



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