Preparation and Treatment of the Site

- Slash and Slash Disposal
- Site Preparation for Planting (methods)
- Intensive Cultural Practices

Slash and Slash Disposal

- Definition: Residue from tree removed in harvests and thinnings. Indicates lack of full utilization
- Importance

Slash and Slash Disposal

- Influences on sites
  - Aids physical properties of the soil
  - Conserve soil moisture
  - Help prevent soil erosion
  - Returns OM to soil after decay
  - Cover for wildlife
  - Speeds return of inorganic nutrients

Slash and Slash Disposal

- May also have some harmful effects, but are short term
  - Increase on pH
  - Water absorption reduced
  - Erosion increases
  - Nutrients lost
- Usually due to HOT fires

Slash and Slash Disposal

- In general, these biological and physical effects are good so why worry about slash disposal?

- Fuel reduction & fire
- Insects and Disease
- Logging and Planting
- Aesthetics
- Free natural regeneration
- Some State laws require it

Slash and Slash Disposal

- Methods of slash treatment --- broadcast, spot and piled (rows) burns
- Logging and scattering
- Special harvesting operations

Slash and Slash Disposal

- **Summary**

- **Fire Protection**
- **In South usually practiced as part of site prep**
- **More complete utilization**
- **Separate Operation?**

Site Preparation

- In terms of plant succession, what species do we usually try to manage?
- Some form of site prep is usually required to meet these requirements

Site Preparation

- Requirements
  - Site clean-up and seedbed prep
  - Removal of competing vegetation
- Methods: ---- harvesting operation; slash disposal; cutting and girdling; herbicides; mechanical; prescribed fire

Site Preparation ---- Prescribed Fire

- Used in 2 Ways
  - Hot fires after harvest and before planting
  - Systematic use of fire throughout rotation controls vegetation so that little site prep required at time of regeneration

Site Preparation ---- Prescribed Fire

- **Results in**

- **Removal of vegetation on forest floor**
- **Exposure of mineral soil**
- **Kills competing vegetation ---- but still get sprouting**

Site Preparation ---- Prescribed Fire

- **Special species adaptation to fire**

1. **Serotinous cones**
2. **Impervious seed coats**
3. **Sprouting species**
4. **Opportunistic Species**
5. **Thick bark**

Site Preparation ---- Prescribed Fire

- **Fire as a Silvicultural Tool**

1. **Seedbed Prep**
2. **Control of competing vegetation**
3. **Improvement of grazing / forage**
4. **Fuel reduction**
5. **Wildlife mgmt.**
6. **Disease Control**
7. **Improve accessibility**
8. **Appearance**

Site Preparation ---- Prescribed Fire

- **Examples**

1. **Longleaf pine**
2. **Slash pine**
3. **Loblolly/Shortleaf**
4. **Pitch pine**
5. **Ponderosa pine**
6. **Oaks**

Site Preparation ---- Prescribed Fire

- **Effects on**

1. **Site**
2. **Standing trees**
3. **Water quality**
4. **Public opinion**

Site Preparation ---- Mechanical Methods

- **Uprooting, Cutting, Girdling, Fire**

- **Use of heavy equipment**
- **Hard on the site**
- **Sprouting**
- **Expensive**

Site Preparation ---- Mechanical Methods

- **Machines: bushhop, disk, chopper, tree crusher, trac-mac, shearing, dozers**
- **Method determined by the size of vegetation and purpose**

BEDDING

- Purpose
- Microsite Conditions
- Drainage
- Short vs Long Term Growth
- Roots

Site Preparation ---- Mechanical Methods

- Summary

Site Preparation ---- Herbicides

- Will Discuss Later

Intensive Cultural Treatments

- Fertilization
- Treatments to regulate soil moisture
- Subsoiling
- Irrigation