Subject Matter of Silviculture

1. Stand Establishment
2. Intermediate Operations
3. Harvest Cutting
4. Protection

Silvicultural Systems and Methods of Regeneration

- System vs Method
- Regeneration vs Reproduction
- Classification of Regeneration Methods: origin, form, and size/geometry of cut

Silvicultural Systems and Methods of Regeneration

- Even-aged system
  - Clearcut
  - Seed Tree
  - Shelterwood
- Two-aged system
- Uneven-aged system
  - Group Selection
  - Single-Tree Selection
Silvicultural Systems and Methods of Regeneration

• What determines even-aged vs uneven-form?

1. Height Differences (crown class)
2. Competition
3. Diameter Distributions (graphs)
4. Geometry & Size of Cut

Choosing a Regeneration Method

• With most species, we have choices as to the method that we use

• Factors
  1. Desires of the owner
  2. Biological Considerations
  3. Economics ***
Succession

• Orderly replacement of communities

• Annuals >>> Perennials >>> Shrubs >>> Saplings >>> Poles >>> Sawtimber

• Pioneers >>> Intermediates >>> Climax

Succession

• Why do we rarely reach a climax stage?

• Disturbance (both natural and man-caused) is rampant on the landscape

• Through silviculture we influence succession by controlling the environment through cutting in all its forms
Succession

- Generally, we manage and promote the earlier stages of succession

- WHY?

<table>
<thead>
<tr>
<th>Pioneers</th>
<th>Intermediates</th>
<th>Climax</th>
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<tbody>
<tr>
<td>Intolerant</td>
<td>Tolerant</td>
<td>Fast-Growing</td>
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<tr>
<td>Slow-Growing</td>
<td>Light-Seeded</td>
<td>Heavy-Seeded</td>
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<td>Short-Lived</td>
<td>Slow-Growing</td>
<td>Long-Lived</td>
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<tr>
<td>Natural Pruners</td>
<td>Slow-Growing</td>
<td>Limby</td>
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<tr>
<td>Will not Reproduce in Own Shade</td>
<td>Will Reproduce in own Shade</td>
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Succession

- Autogenic Succession

- Allogenic Succession

- Rate of Succession
  - Species
  - Early vs. Late
  - Micro-environment