

Virginia's Forests—Historical Perspective

Raymond M. Sheffield
Supervisory Research Forester
Forest Inventory and Analysis

Objectives

- Brief summary of previous forest inventories in Virginia
- Reasons for recent changes in inventory design
- Highlight differences in current annual inventory with previous periodic
- Highlight key resource changes during last five decades

Previous Inventories

- Six full inventories

■ 1940	1957	1966	1977
■ 1986	1992		

- All periodic in design vs. annual

- Numerous changes in sample design and methodology

- All have provided scientifically sound data to assess forest resource trends

Why the Change in Inventory Methods?

- Resource trends not predictable
- Uncertainty spawned by natural and human events
- Lengthening inventory cycles
- More national consistency in inventory procedures

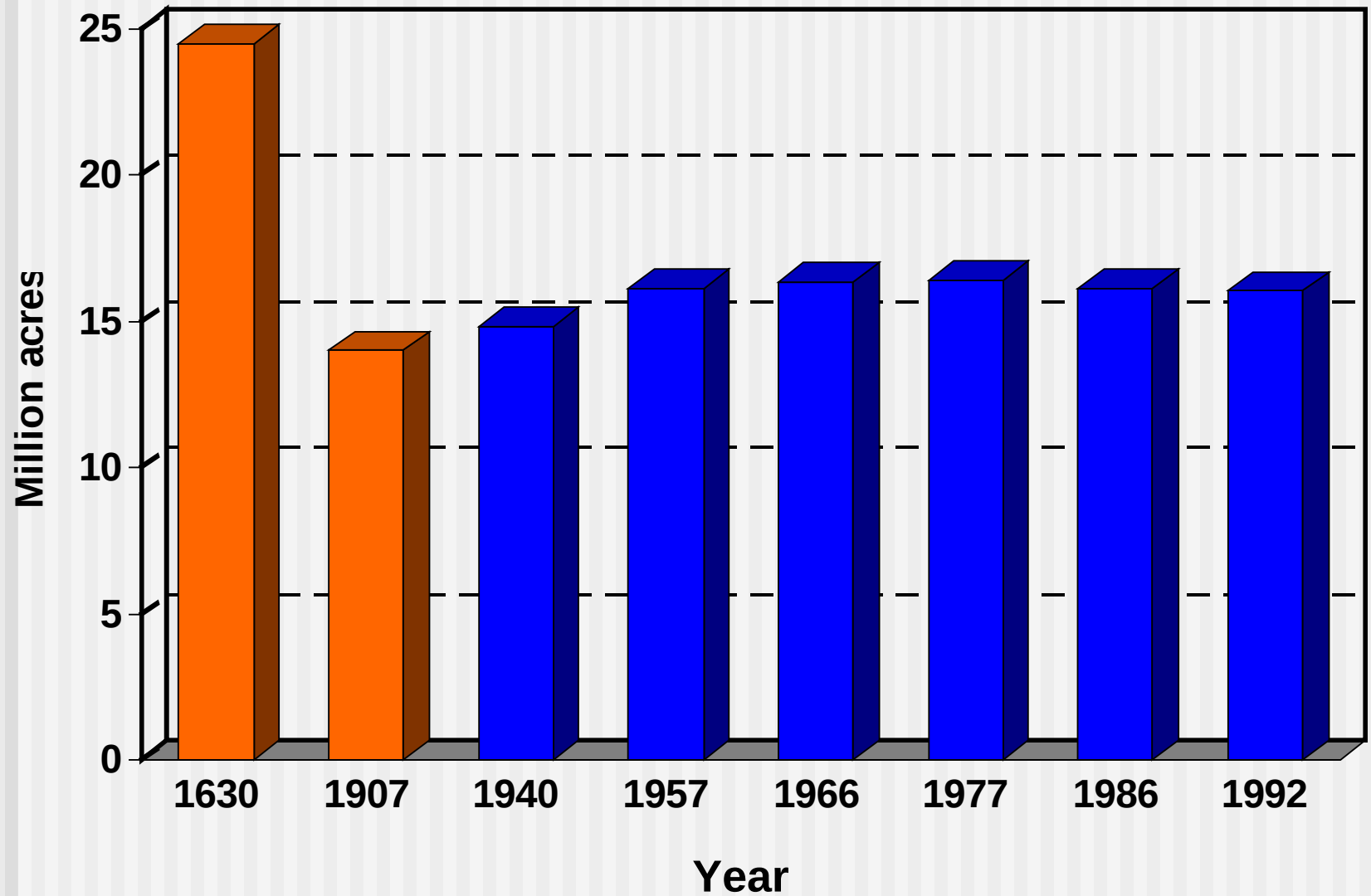
Changes Since 1992

- Annual inventory design
- Fixed radius plot vs. variable radius
- Sample intensity
- Ownership classes
- Forest area estimation
- Incorporation of forest health variables (P3)

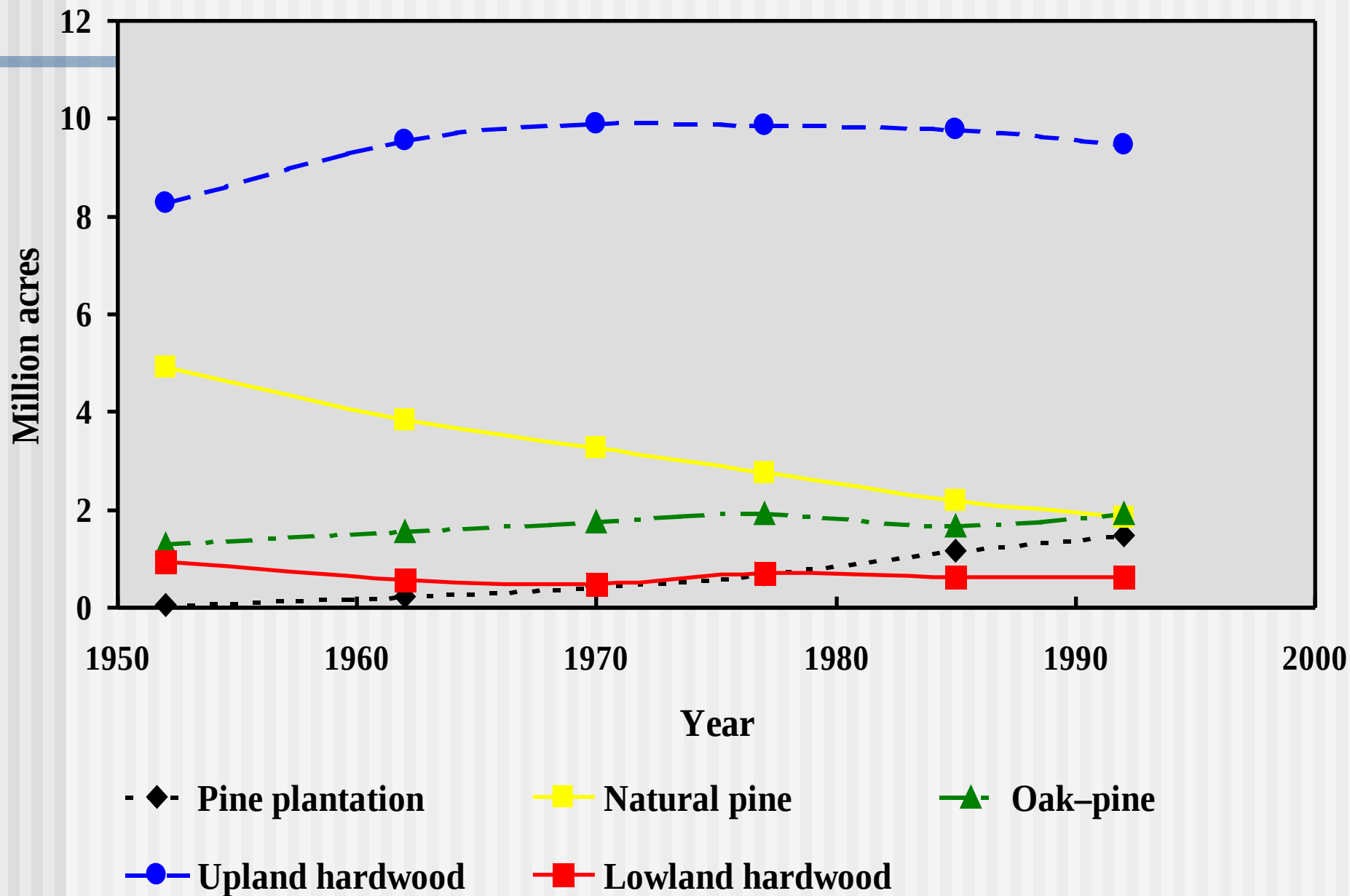
Annual Inventory Design

- Measure a portion of total plots each year, distributed across State
- 5-panels (or subcycles) used in VA; 20% of plots in each panel
- Each panel can be compiled as an independent estimate but sampling errors may be high
- Current results are a composite of all 5 panels

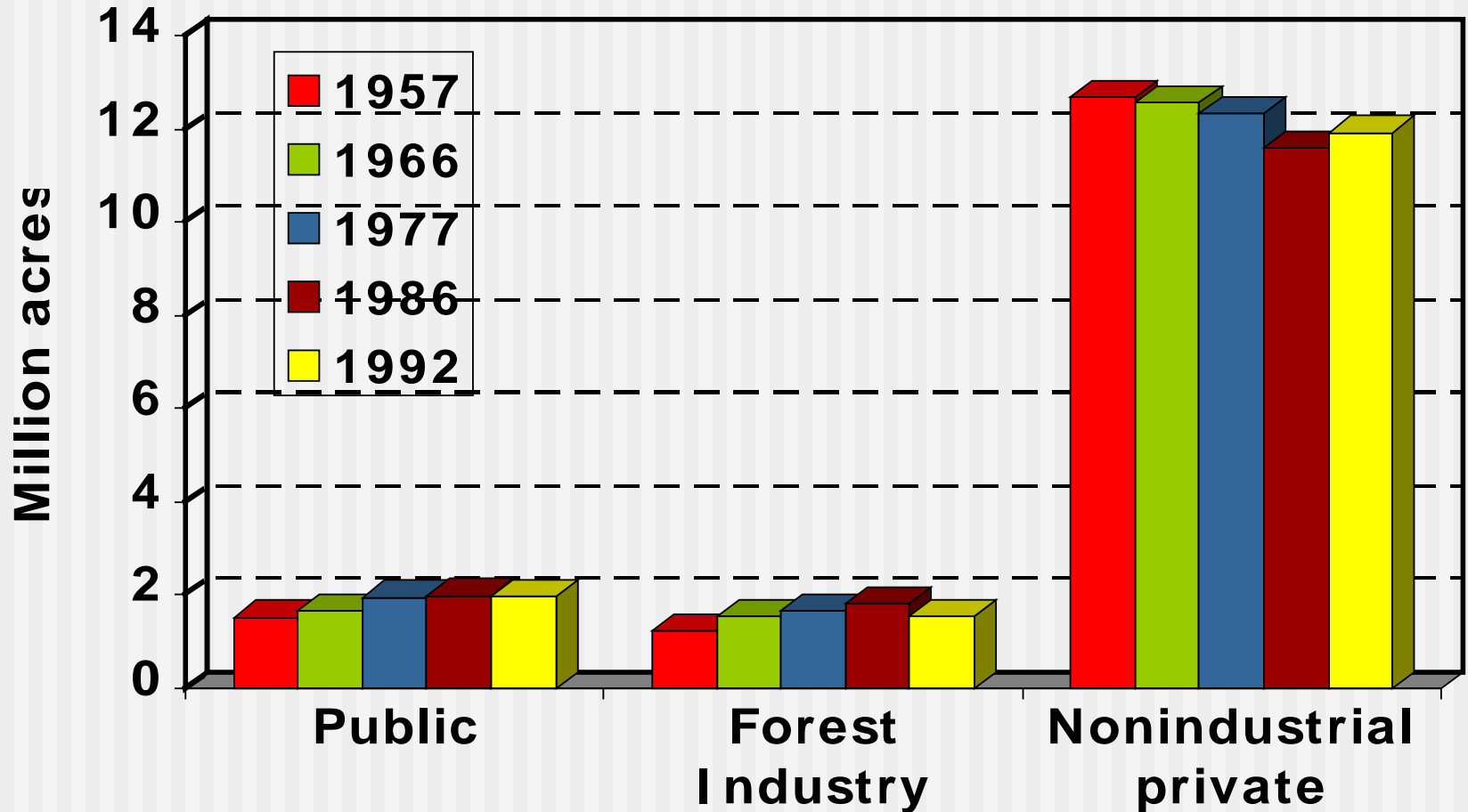
Trends in Area of Forest Land



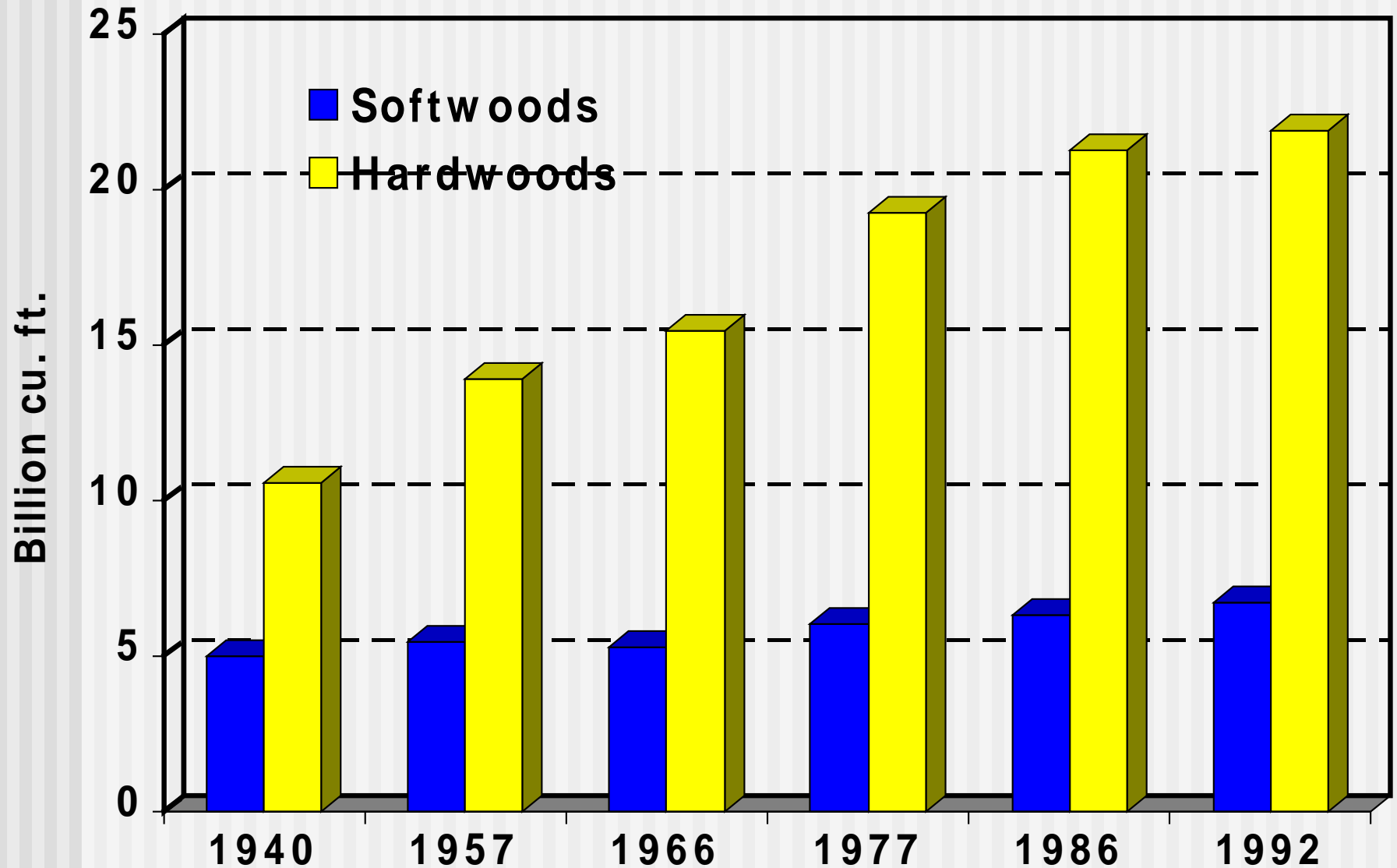
Forest Cover Type Trends



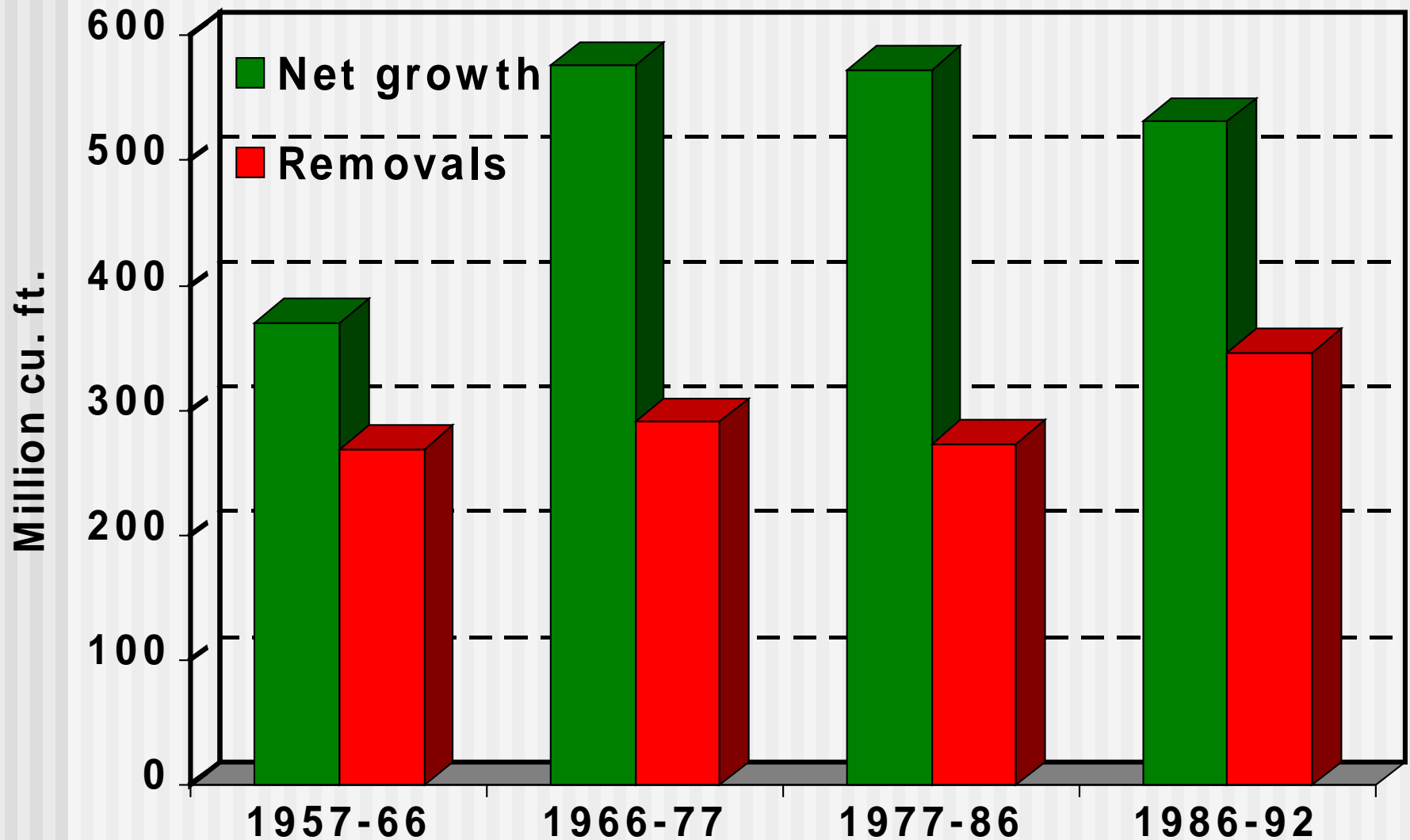
Ownership Trends



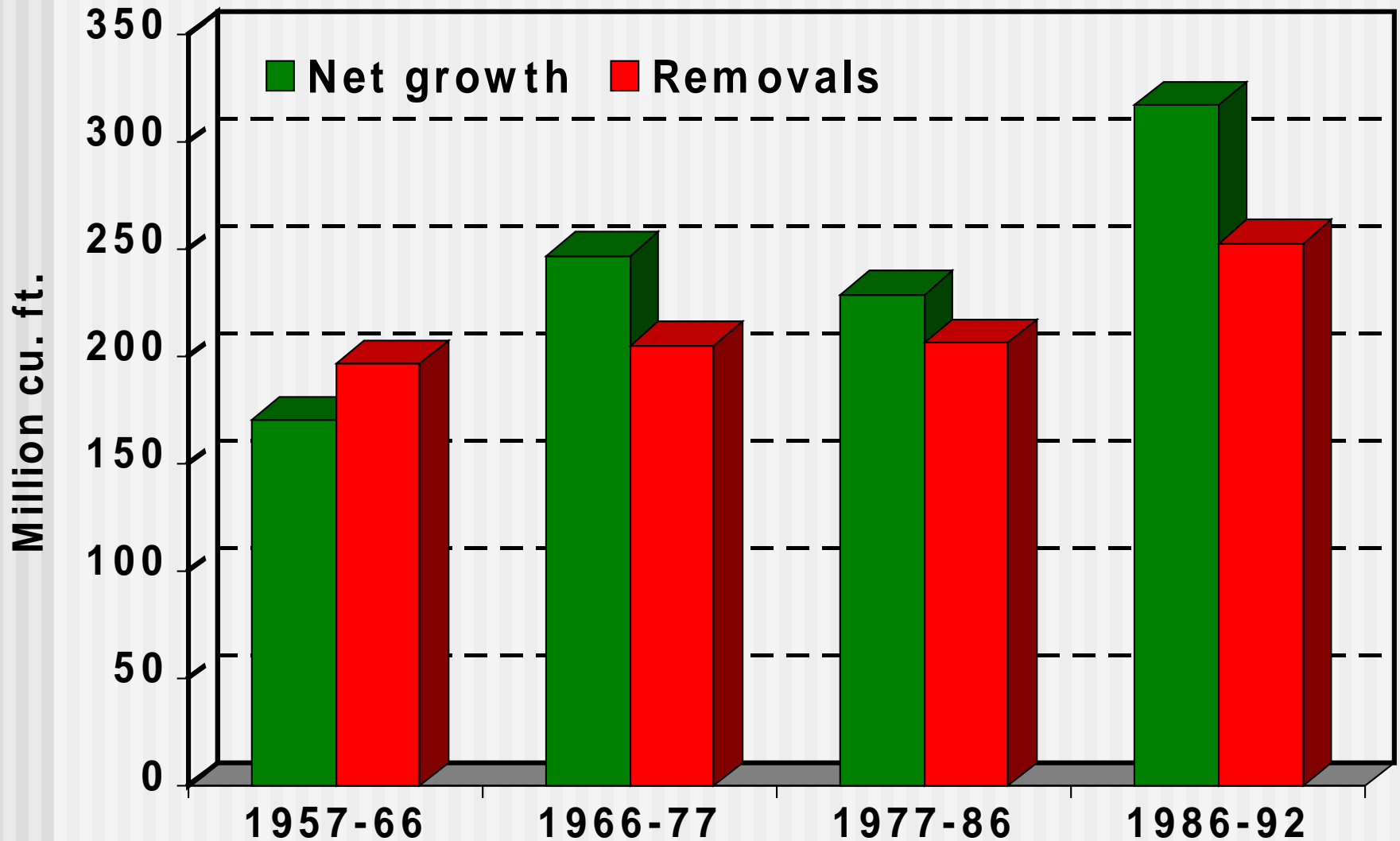
Trends in Inventory of Live Trees



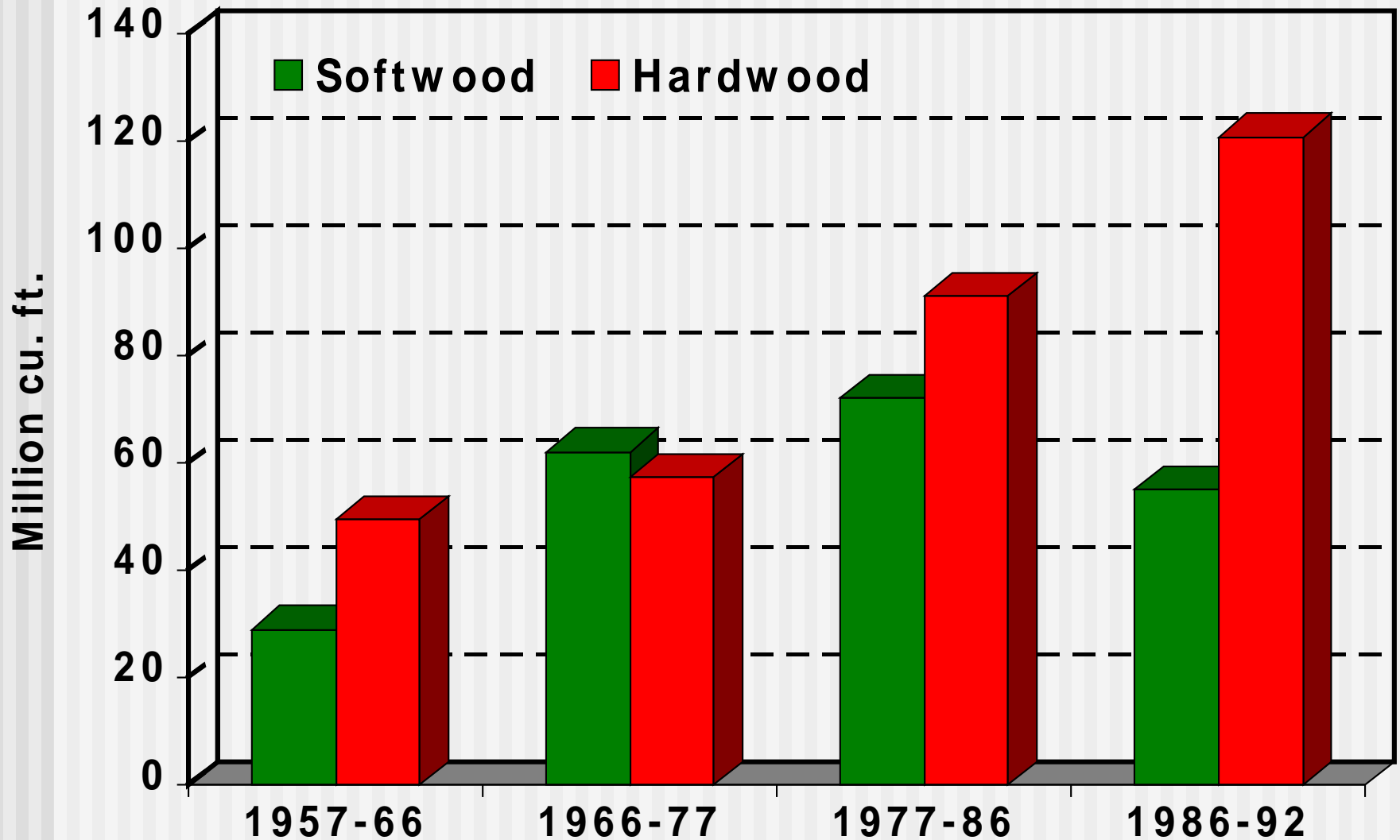
Hardwood Net Growth and Removal Trends



Softwood Net Growth and Removal Trends



Softwood and Hardwood Mortality Trends



Internet links:

- Virginia Cycle 3 Subcycle 1-5 data available at: SRS FIA web page
 - <http://srsfia2.fs.fed.us/>

- Data and custom table building capability available at:
 - FIA Database Retrieval System:
<http://www.ncrs.fs.fed.us/4801/FIADB/index.htm>