

Stand table projection, and growth and yield models

I. Stand table projection or growth and yield (GY) model?

A. GY models are primarily analytical what if models, but can be used for projection.

B. Stand table projections are specific to a stand, and cannot be used to estimate the effects of management.

II. Stand table projection

A. Assumptions

1. No mortality in growth interval
2. Diameters are uniformly distributed in classes
3. Past and current trees with the same dbh have the same dbh growth.

B. Flaws - same as assumptions

C. Stand table projection by hand

1. Growth, and bark thickness equations
2. Growth ratio index
3. Moving trees between dbh classes by growth ratio index

D. Stand table projection with TCruise

1. Data collection
2. Not to dos

III. Growth and yield models

A. Types

1. Stand level
2. Diameter distribution
 - a. Direct parameter prediction
 - b. Parameter recovery
3. Individual tree diameter distribution
 - a. Distance independent
 - b. Distance dependent
4. Process/mechanistic

B. Applicability

1. What if questions
2. Inventory projection

C. Availability, and sources are limited

1. Mississippi State University

- a. Cutover loblolly
- b. Cutover slash
- c. Natural longleaf
2. Virginia Poly Technical Institute - PTadea
3. University of Georgia
4. WinYield

D. Inventory projection interpretation and reconciliation

E. Example inventory projection using TCruise output

F. Computer demonstration of MSU Site Prepared Cutover Loblolly Pine GY Model

G. Discussion and question session