

# **von Gadow, K. & Hui, G. (1999): Modelling Forest Development. Forestry Sciences 47., Kluwer Academic Publishers, Dordrecht**

Teljes hivatkozás: von Gadow, K. & Hui, G. (1999): Modelling Forest Development. Forestry Sciences 47., Kluwer Academic Publishers, Dordrecht

Rövid hivatkozás: von Gadow & Hui (1999)

Első szerző: von Gadow, Klaus

Év: 1999

Összefoglalás

Modelling Forest Development

Klaus von Gadow

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The key to successful timber management is a proper understanding of growth processes, and one of the objectives of modelling forest development is to provide the tools that enable foresters to compare alternative silvicultural treatments. In a managed woodland, the most important periodic disturbances are the thinning operations, which are often carried out at regular intervals and which usually have a significant effect on the future evolution of the resource. Thus, a realistic model of forest development includes both natural growth and thinnings. One of the outstanding features of this book is its inclusion of thinning models at varying levels of resolution and consideration of differences in forester's tree marking behaviour. Other interesting aspects include regional resource forecasting approaches, generalized stem taper functions, generalized diameter-height relations, new ways of describing and reproducing forest spatial structures, crown modeling and iterative competition modeling. Worked examples and code are provided where appropriate. The intended readership is graduate students.

[erdőgazdálkodás](#)

[módszertan: modellezés](#)

Megjegyzések

Modelling Forest Development

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Tartalom:

## 1. Introduction

Types of Forest Models

Data Requirements

Permanent Plots

Temporary Plots

Interval Plots

## 2. Projecting Regional Timber Resources

Empirical Yield Functions

Fully Stocked Forests

Non-fully Stocked Forests

Yield Functions based on MAI Estimates

## 3. Modelling Stand Development

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Anamorphic Height Models

Disjoint Polymorphic Height Models

Non-Disjoint Polymorphic Height Models

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The limiting Line

Estimating Potential Density

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## 4. Size Class Models

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Projecting Diameter Distributions

Stand Table Projection

-Diameter Growth as a Function of Diameter

-Growth Modifiers

-Change of Relative Basal Area

-A Worked Example

-Transition Matrices

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-Species Segregation and Mingling  
-Aggregation  
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