

# Foothills Growth and Yield Association

Dick Dempster Ph.D., R.P.F.  
Foothills Model Forest Research Forum  
June 22, 2005



Foothills Growth and Yield Association

# Outline

- ◆ Background
- ◆ Enhanced fibre production and management of lodgepole pine
- ◆ Priorities for growing research into practice



Foothills Growth and Yield Association





## Partners and Members

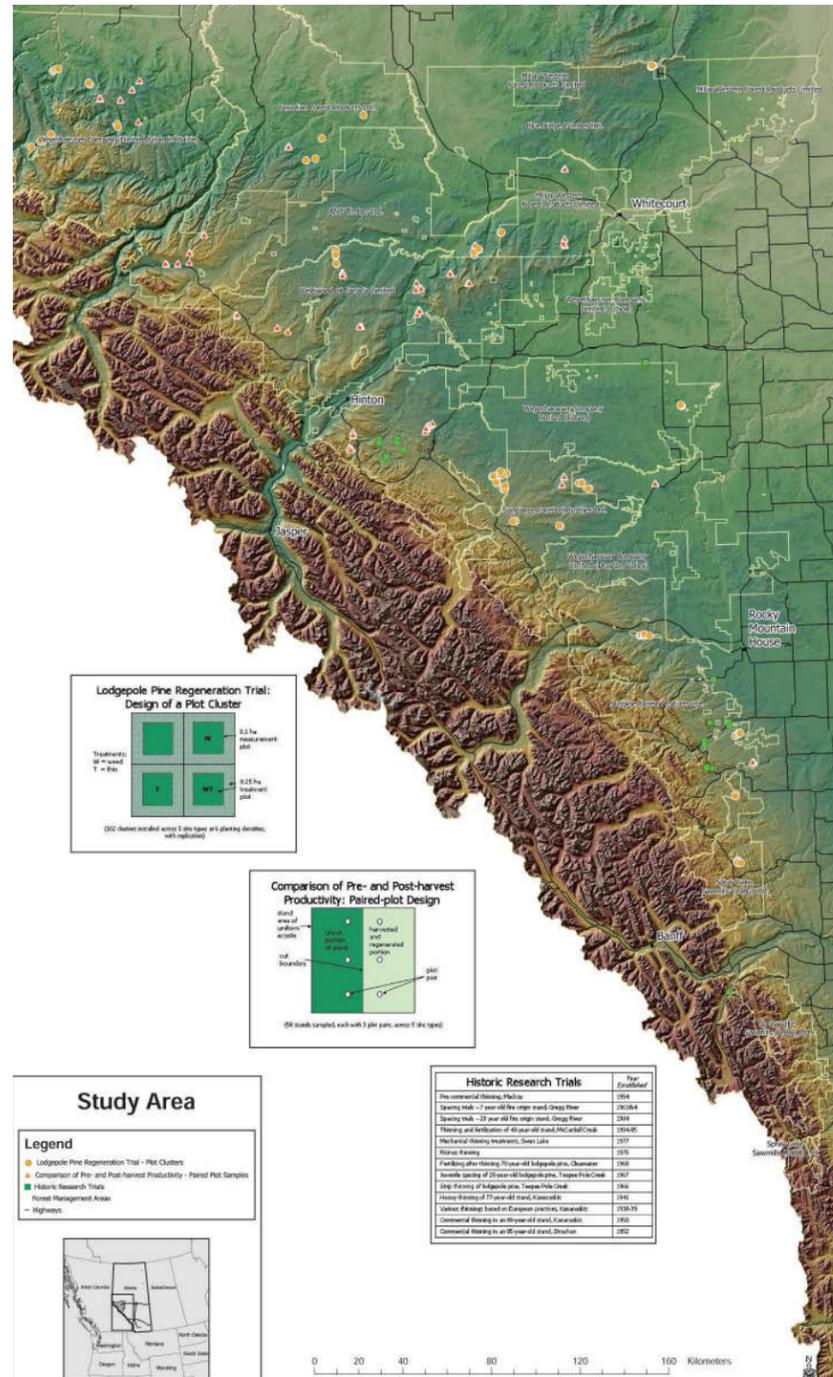
- Alberta Newsprint Company
- Blue Ridge Lumber
- Canadian Forest Products
- Millar Western Forest Products
- Spray Lake Sawmills
- Sundance Forest Industries
- Sundre Forest Products
- Hinton Wood Products
- Weyerhaeuser Canada
- Alberta Sustainable Resource Development
- Foothills Model Forest
- Forest Resource Improvement Association of Alberta
- Canadian Forest Service
- University of Alberta

## Mission and Mandate

---

**Continually improve the assessment of lodgepole pine growth and yield in managed stands by:**

- 1. Forecasting and monitoring responses to silvicultural treatments**
- 2. Facilitating the scientific development and validation of yield forecasts used by members in managing their tenures**
- 3. Promoting knowledge, shared responsibility and cost-effective co-operation**



## Projects

- Development and management of the Association
- Lodgepole pine regeneration
- Comparison of pre-harvest and post-harvest stand development
- Cooperative management of historic research trials
- Regional yield estimators
- Enhanced management of lodgepole pine



## Collaborative Projects

- **Canadian Forest Service**
  - Cooperative management of historic research trials
- **Alberta Sustainable Resource Development**
  - Regional yield estimators
- **University of Alberta**
  - Enhanced management of lodgepole pine



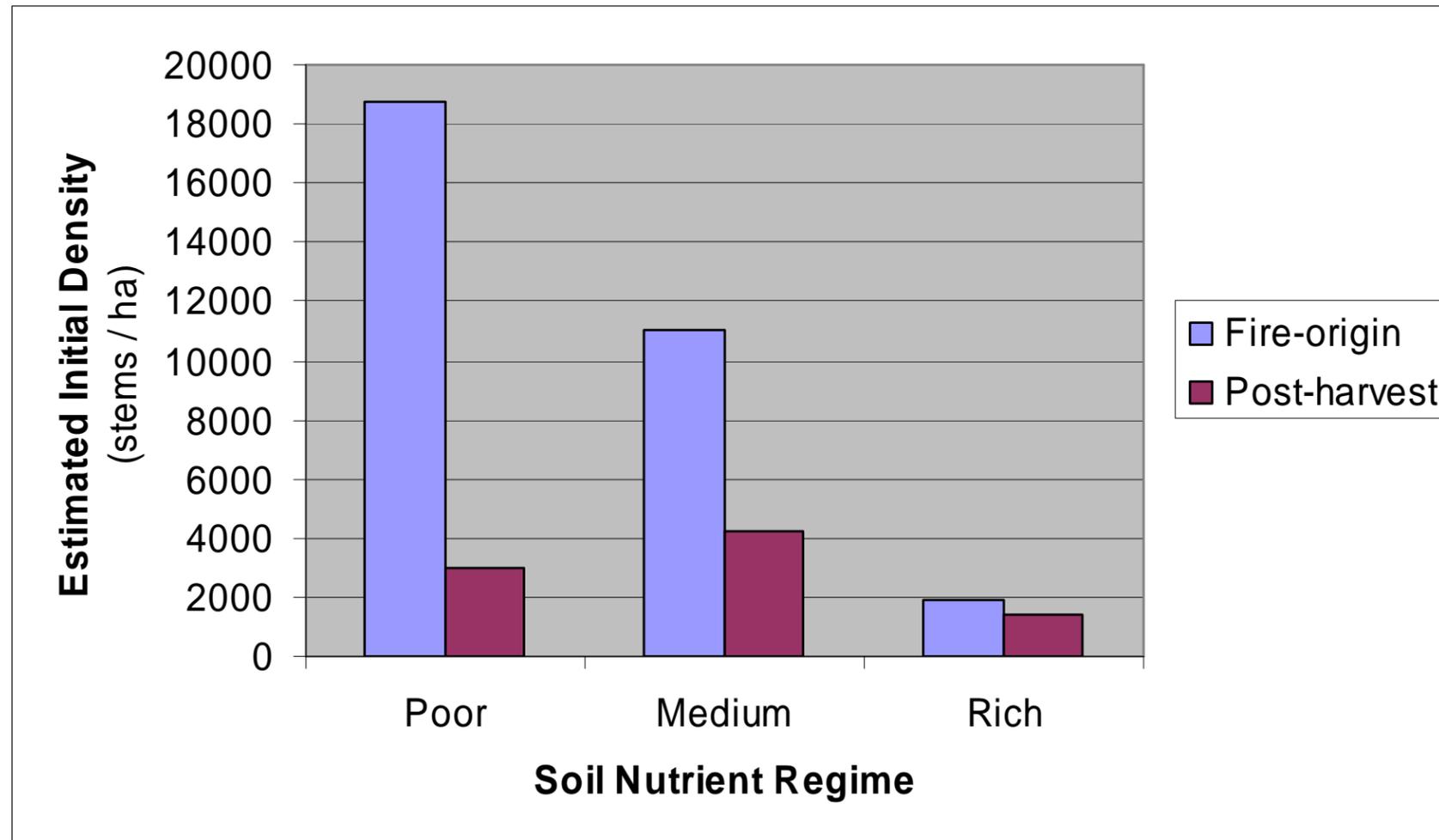
# **Enhanced Fibre Production and Management of Lodgepole Pine**

**W.R. (Dick) Dempster  
Foothills Growth and Yield Association**

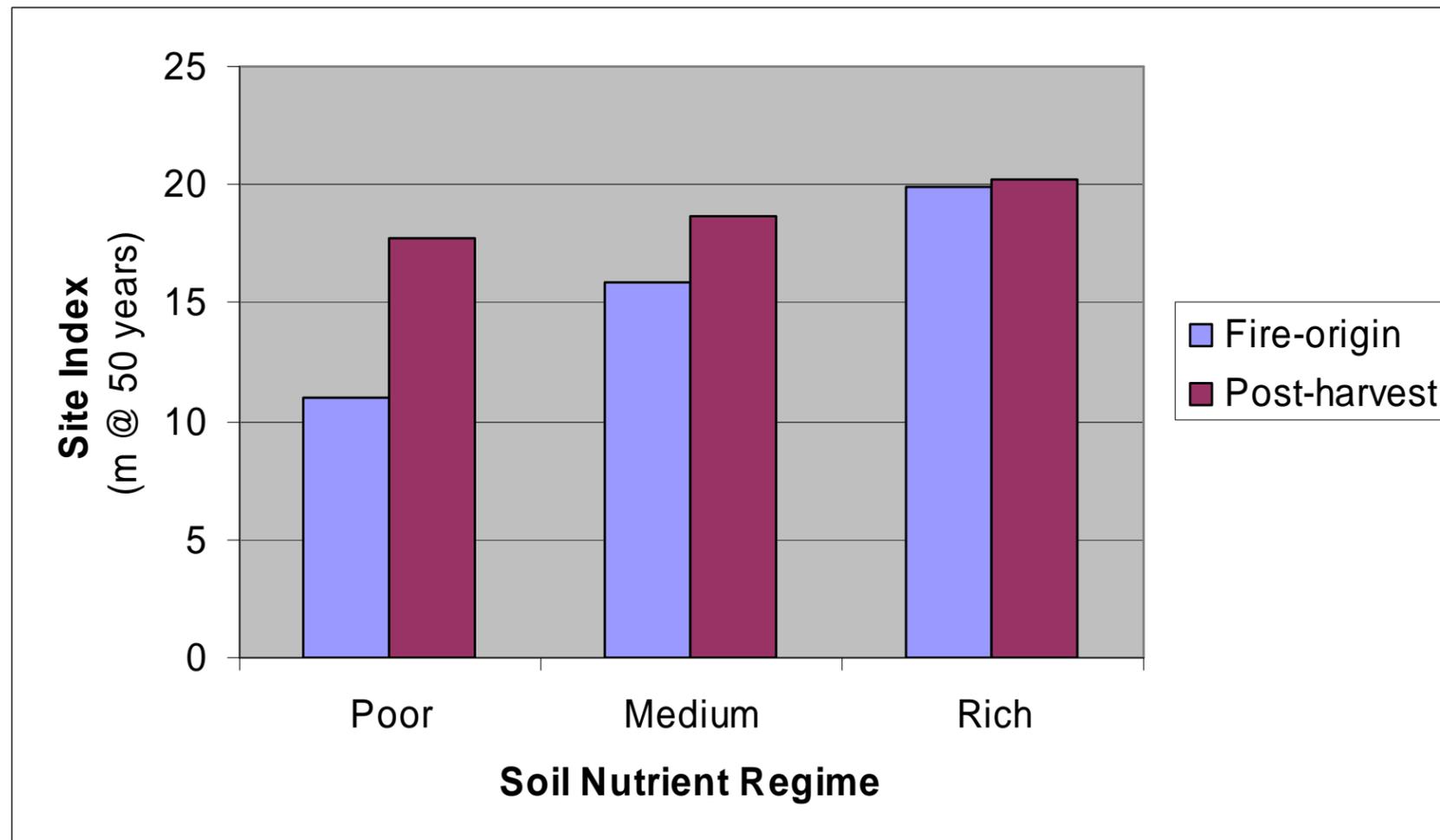
**Shongming Huang  
Alberta Sustainable Resource Development**

**October 4, 2004  
Joint CIF/SAF Convention, Edmonton, Alberta**

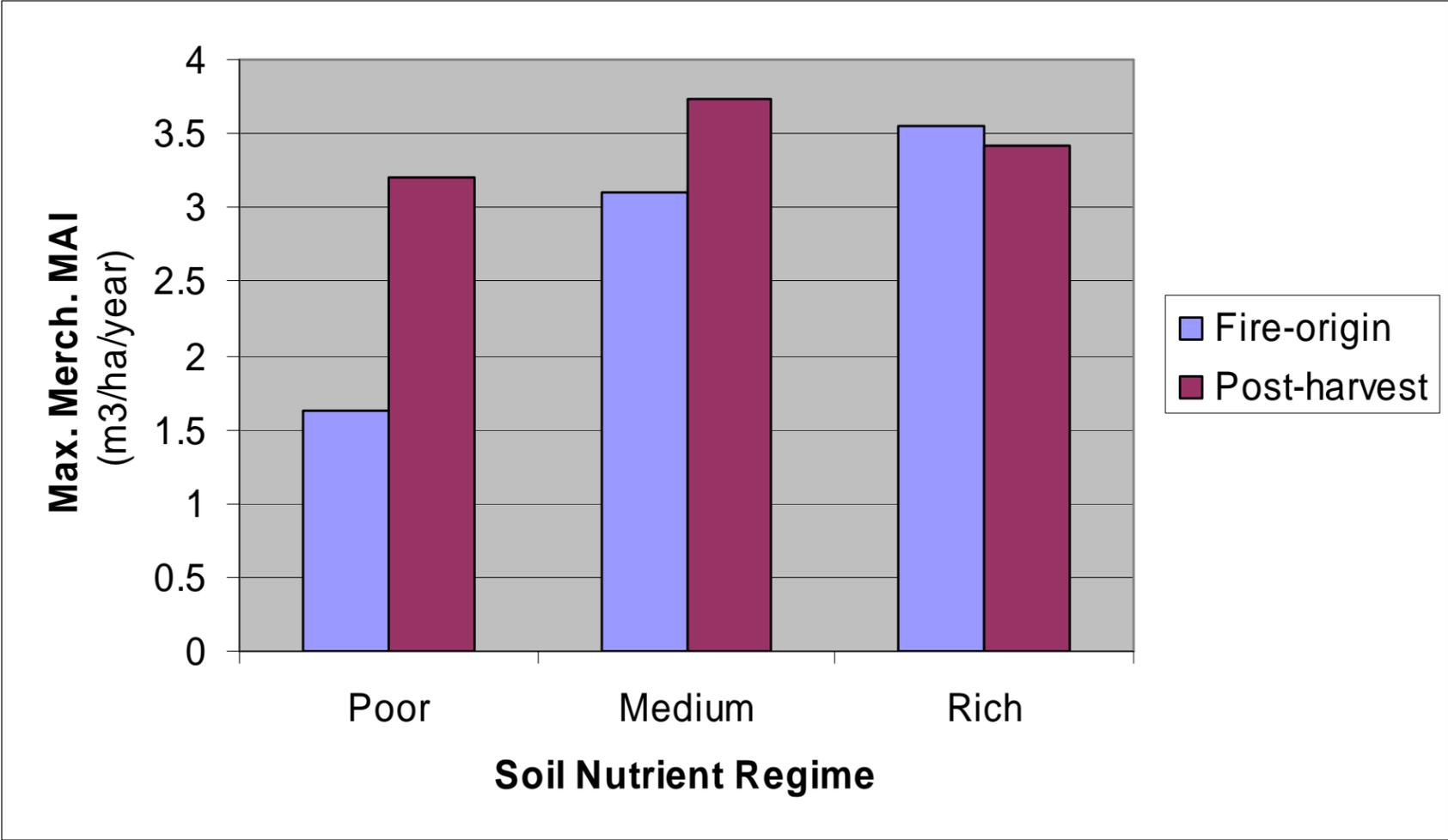
## Trends in Regenerated Stands – Density



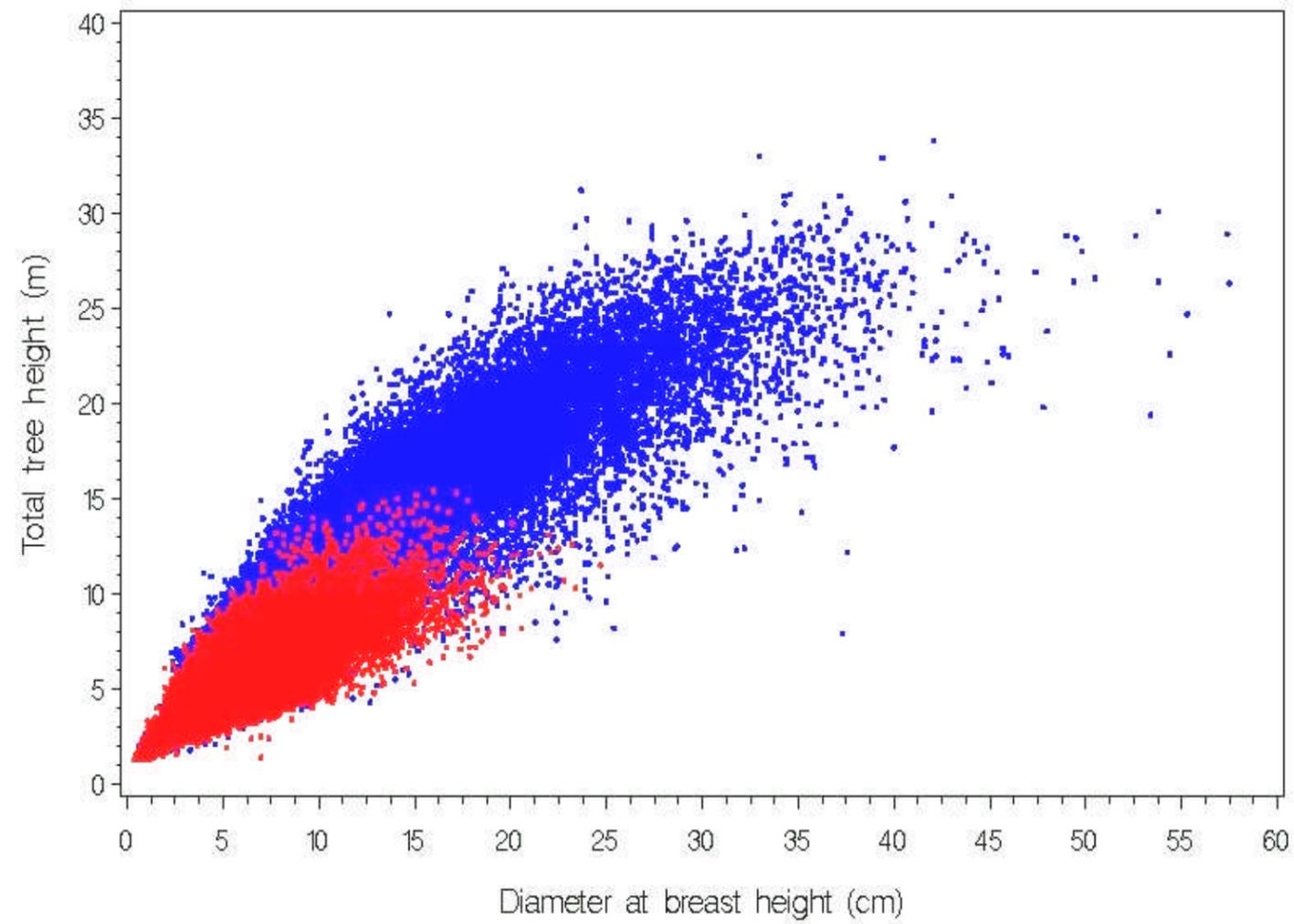
## Trends in Regenerated Stands – Site Index



# Trends in Regenerated Stands - Volume Production



## Trends in Regenerated Stands - Tree Form and Wood Quality







## Conclusions

---

- **Post harvest timber productivity can be increased relative to that of fire-origin stands**
- **Requires improved forecasting, risk management, careful monitoring**
- **Operational emphasis should be on cost effectively achieving good stocking, to offset risks and maintain options**

## Decision-Support Priorities

---

- **Management of density and composition in post-harvest regeneration**
- **Regeneration standards**
- **Thinning and fertilization**

## Density Management in Young Stands



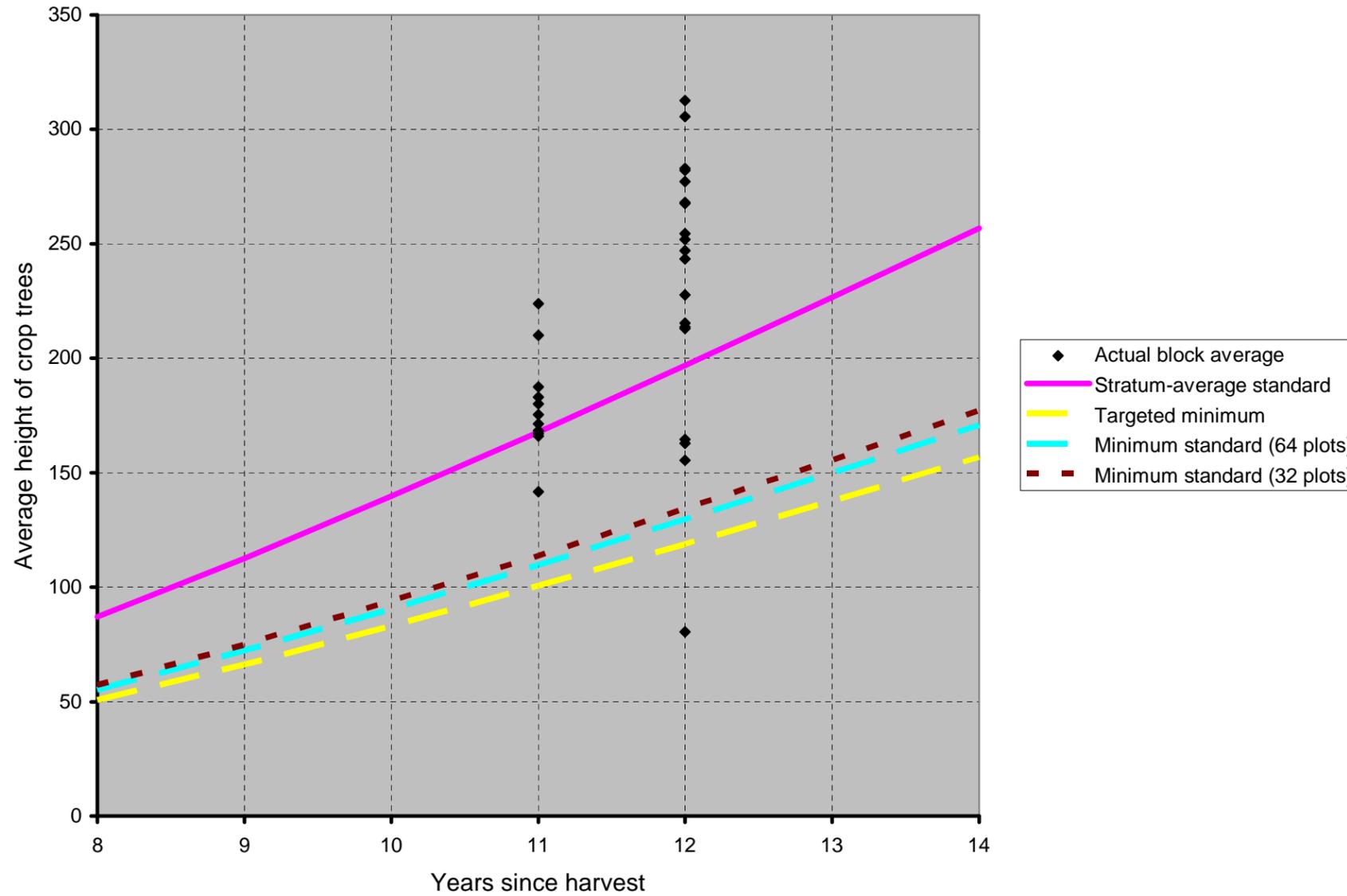








# Regeneration Standards



**Thinning and Fertilization**



# Research Growing into Practice



Foothills Growth and Yield Association