# Foothills Growth and Yield Association

## A Successful Collaboration

The Foothills Growth and Yield Association (FGYA) is a collaborative research initiative of nine Alberta Forest Management Agreement holders, Alberta Sustainable Resource Development and the Foothills Research Institute. Since it began in 2000, the FGYA has established and maintained a number of projects, all focused on forecasting and validating the growth and yield of Lodgepole pine in Alberta.

In 2010 the Association marks the end of its first 10 years of service to the forestry community and is developing a new five year plan in support of the following priorities (projects noted in italics):

1. Responses to planting, vegetation management and density regulation in reforested stands –
   a. *Project 2: Regenerated Lodgepole Pine (RLP) - Crop Performance Report (2009); Regeneration Models (2010)*

2. Mortality, forest health and risk management in reforested stands, including the effects of climate change –
   a. *Project 2: RLP - climate impacts on growth and mortality of juvenile Lodgepole pine*
   b. *Project 7: Monitoring and decision support tool for stands impacted by Mountain pine beetle*

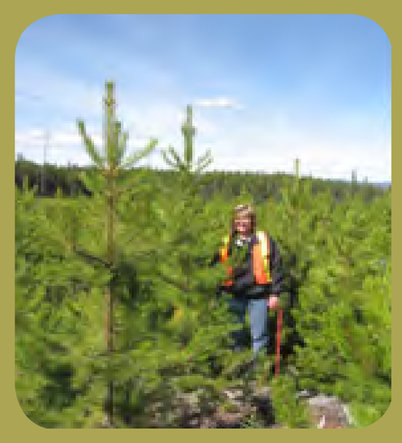
3. Effects of spacing, tending, nutrition and thinning in reforested stands, including relationship to similar effects in fire-origin stands
   a. *Project 4: Historic Research Trials*
   b. *Project 6: Enhanced Management of Lodgepole Pine*

4. Impacts of density management on wood quality over time
   a. *Project 4: Historic Research Trials (collaboration with Canadian Wood Fibre Centre)*

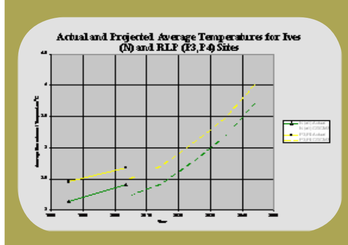
Chair - Greg Branton, Alberta Newsprint
Operations Director – Bob Udell
Research & Development Associate – Dick Dempster
Field Coordinator – Rand McPherson

## Going forward in the 21st Century

1. Regenerated Lodgepole Pine trial - 408 plots visited every year, measured every second year since 2001
- Plots cover full range of lodgepole pine in Alberta
- Regeneration models will improve yield forecasting in management plans
- Uniquely designed to inform and validate assumptions of regeneration standards, targets and practices
- By 2015, measures will span full period from establishment to "performance survey"



Mitigating the impact of climate change
- RLP plots show strong linkages between climate, growth and mortality
- Study will be expanded to further examine and explain trends
- Has major implications for reforestation strategies




2. Mountain pine beetle research - develop decision support tool to mitigate impacts of beetle through stand treatment
- Member company and SRD permanent sample plots provide invaluable data linking past development to future impacts and trends

3. Communications - Develop web-based Silviculture risk management discussion group (SRMDG)
- Distribution of research findings, documentation and tools
- Discussion forum for information sharing, interpretation and collaboration
- Workshop announcements and results
- New publications and presentations
- Literature reviews
- Polls and consensus gathering

Foothills Research Institute is a leader in developing innovative science and knowledge for integrated resource management on the forest landscape through diverse and actively engaged partnerships.

The Foothills Research Institute landbase is located in west-central Alberta, and is based in the resource community of Hinton, some three hours west of Edmonton. It covers roughly 2.75 million hectare (27,500 square kilometres), and embodies Jasper National Park of Canada, the Willmore Wilderness Park, and the Forest Management Area of Hinton Wood Products, a Division of West Fraser Mills Ltd. It also includes some provincial "crown forest management units" and the Hinton Training Centre's Cache Percotte Training Forest. Within its boundaries are three forest areas—boreal, montane, and sub-alpine—and many forest uses including timber, petroleum, and coal extraction, tourism, and recreation.

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