



Foothills Growth and Yield Association

Quick-Note # 2

Highlights of 2002-03

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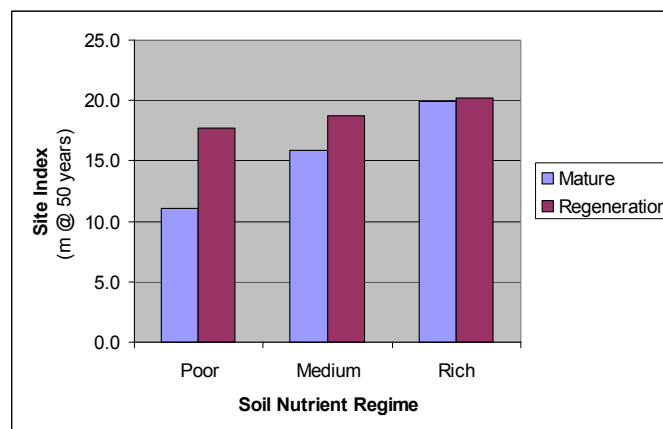
The following note highlights some of the Foothills Growth and Yield Association's (FGYA) main activities and achievements for the period April 1, 2002 – March 31, 2003

Lodgepole Pine Regeneration Project

The purpose of this long-term project is to forecast and monitor the growth and yield of lodgepole pine, regenerated after harvesting, in relation to site, initial spacing of planted stock, natural ingress, mortality, competing vegetation (brush), and density regulation (pre-commercial thinning). The FGYA member companies and their contractors successfully completed all measurements and treatments scheduled for the 2002 field season. Data collected to date were compiled, verified, and distributed to the members. Analyses were conducted as a basis for initial growth and yield forecasting, and for determining treatment (fill-in planting and brushing) requirements for the coming year. An establishment report, including computer simulations of future stand development, has been completed, and will shortly be available for downloading from the Foothills Model Forest (FMF) website.

Comparison of Pre-harvest and Post-harvest Site Indices

The purpose of this study was to assess post-harvest stand productivity in relation to pre-harvest site index.¹ Two complementary techniques were successfully applied: contemporaneous paired-plot sampling of adjacent regenerated and mature stands, and analysis of data from permanent sample plots measured before and after harvesting. Results indicate significant changes in the development of regenerated stands relative to their fire-origin predecessors (e.g. substantial increases in site index on “poor” sites, as illustrated below), and have important implications for forest management. A draft technical report is currently undergoing peer review.



¹ Site index is a measure of the potential timber productivity of a site based on the height development of the largest trees least affected by competition.

Cooperative Studies

The FGYA, Canadian Forest Service (CFS), and Alberta Sustainable Resource Development (ASRD) signed a formal Letter of Agreement in July 2002 for the cooperative maintenance and analysis of field trials established along the Eastern Slopes over the last 50 years. A contractor, funded by ASRD and directed by the CFS, collated and compiled the historic data. The FGYA is commencing re-measurements this year. Jim Stewart of the CFS is leading analysis and synthesis of results.

During 2002 several FGYA members provided data and technical inputs to an ASRD analytical team led by Shongming Huang (Senior Biometrician, Land and Forest Division), for the development of compatible yield and growth estimation techniques. The team presented initial results and conclusions to the FGYA membership at its annual meeting, and plans to make prototype software available for testing in 2003.

Knowledge and Technology Transfer

Technical representatives and scientists from the FGYA member companies, ASRD, FMF, and other cooperating organizations exchanged information and ideas throughout the year. Some highlights were:

- Publication on the FMF website of a report commissioned by the FGYA: *Evaluating the Opportunities for Nutrition and Density Management of Fire Origin Lodgepole Pine in Alberta* (available at www.fmf.ab.ca/pro.html).
- A training workshop on database use, presented by the FMF, taught FGYA members how to access the Associations' rapidly expanding *Regenerated Lodgepole Pine Project* data.
- Annual meeting and technical forum (February 2003). The theme of the technical forum was: *Progress and Priorities in the Assessment of Lodgepole Pine Growth and Yield*. Researchers from the FGYA, CFS, ASRD, and University of Alberta reported on the status and progress of related research. A senior panel, consisting of government, industry and academic representatives, reviewed priorities.

The mission of the Foothills Growth and Yield Association is to continually improve the assessment of lodgepole pine growth and yield in managed stands. For more information please contact:

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