

Growth and Yield Monitoring Task Force

Terms of Reference Silviculture Working Group

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Contents

Background	1
Mandate	1
Guidelines	1
Strategy and Tasks	2
Workplan and Timetable for 1997	2
Membership	3

Background

The Growth and Yield Monitoring Task Force has identified growth and yield needs which require monitoring, It has divided these needs into three groups and established a Working Group for each. One of those is the Silviculture Working Group (SWG).

Mandate

The Silviculture Working Group will assess and decide upon the feasibility and appropriateness of monitoring growth and yield estimates and predictions of:

- Stand growth resulting from stand establishment scenarios, basic and incremental silviculture treatments and harvesting options, including interactions among treatments, sites, species, timing of treatments, and prior treatments.
- Genetic gain.
- Pest impacts on stand growth and yield, including interactions with stand establishment, treatments, and harvesting options.
- Site quality, including site index estimates from biogeoclimatic ecosystems (BEC) and growth intercepts, adjustment of old growth site indices, and site-height curves.

Where deemed feasible and appropriate, sampling designs will be developed and tested. These designs will provide statistically controlled growth and yield estimates for comparison with existing estimates. Such monitoring will help silviculture managers assess if silvicultural treatment objectives are met.

The Working Group will document the decisions made and the reasoning behind them, to give guidance to other investigators in the future.

Guidelines

- Develop designs that
 - provide both short- and long-term results;
 - can be implemented immediately;
 - can be implemented by various groups: Co-ops, licensees, MOF;
 - can be implemented by component (core component and options);
 - can be targeted on issues and populations of local interest;

- relate to silviculture management, e.g. free growing trees, well spaced acceptable trees;
- provide estimates of growth and yield of stand/site/treatment types
- Make recommendations that
 - encompass all associated programs (NIVMA, EXPLORE, ST, IF);
 - capitalize on existing programs (NIVMA, PROBE, Sx trial program);
 - explicitly deal with linkages to other growth and yield data sources (experiments, PSP's, etc.).
- Provide
 - data that are easily accessible to all;
 - support for users' interpretation and analysis of the data;
 - canned reports;
 - information to meet identified business needs and facilitate improved management.

Strategy and Tasks

The Working Group will initially focus on the opportunities provided by the Vegetation Resource Inventory (VRI): this inventory design may serve as a platform for monitoring of silvicultural activities. Thus, an initial step is to determine what growth and yield needs can be monitored by the VRI design and what modifications (if any) will be required to make it suitable for that purpose. Secondly, the Working Group will review existing programs and data sources to determine if they can serve a useful role in meeting those needs which can not be met by the VRI design. Thirdly, if necessary, the Working Group will develop additional designs to meet any residual needs.

Workplan and Timetable for 1997

January - April:

- from existing sources (NIVMA, Task Force Terms of Reference, others), list specific silvicultural treatments that need to be monitored;
- determine which of these can be monitored using the Vegetation Resource Inventory sampling design, or a modified version thereof;
- develop and describe the modified VRI design;
- review existing programs and data sources, with particular emphasis on the Silvicultural Treatment Program (STP) and the Intensive Forestry Program (IFP);
- produce a plan of action for the STP and IFP (Note: this should be based on Thrower's 1994 report);

May - September:

- report to the GYMTF and participate in the Mesachie Lake meeting;
- as required, conduct field reviews of the STP and IFP installations;
- assist in the development of an integrated VRI based monitoring design

October - December:

- make recommendations with respect to the STP and IFP;
- participate in pilot survey of the integrated VRI based monitoring design;
- report to the Task Force

Membership

The Working Group will be co-chaired by Pat Martin and Val Fletcher of the Forest Practices Branch. Members will include growth and yield experts from government, universities, industry and the consulting community.