



## Hybrid Poplar Crop Manual for the Prairie Provinces

### Technical Summary

The 'Hybrid Poplar Crop Manual for the Prairie Provinces' was recently completed under contract with the Saskatchewan Forest Centre (SFC).

The Crop Manual is a compendium of current knowledge about the planning, establishment and management of so-called '*short-rotation-intensive-culture*' hybrid poplar crops, known as SRIC hybrid poplar. SRIC hybrid poplar is managed as an agronomic crop on farmland in the Prairie Provinces. To meet the rapidly growing interest from farmers, land owners and corporations in this crop, this Manual consolidates relevant information into one document.

Information was compiled based on the expertise of the author, augmented with information from various experts and practitioners in this field. A progress and initial project review was done through an Expert Review Group, which met in November 2005 in Saskatoon. The draft modules (chapters) were subsequently reviewed for technical content and completeness by members of the Expert Review Group, as well as several outside experts. The Manual was converted to a Web-based format by Saskatchewan Agriculture and Food (Communications) and is available through the websites of the Poplar Council of Canada ([www.poplar.ca](http://www.poplar.ca)) and the Saskatchewan Forest Centre ([www.saskforestcentre.ca](http://www.saskforestcentre.ca)). Its format is dynamic and thus suitable for updates and improvements over time.

### Organization of the Crop Manual

The organization of the Crop Manual follows a planning sequence. Individual modules are supported by appendices and a glossary of terms that are linked for easy use. External Web links allow the user to expand the information base. The navigation features of the Manual allow the user to move around in the document.

#### I. Introduction

- Basic concepts
- Technical background

#### 1. Site requirement and site selection

- Hybrid poplar soil and climate requirements
- Operational considerations in selecting a site

#### 2. Clone selection and deployment

- Monoclonal vs. polyclonal crops
- Clone selection and need for additional clones suitable for the Prairie region
- Example of a clonal deployment method as a risk reduction strategy



3. Stock procurement
  - Clonal selection and the importance of clonal identity
  - Planting stock types and standards
  - Nursery practices
4. Crop density, spacing and layout
  - Crop density based on end product
  - Spacing to meet crop density and fit crop maintenance system
5. Site preparation
  - Weed management strategy and standards
  - Planning and decision chart; examples of site preparation scenarios
  - Lack of registered herbicides in Canada for SRIC hybrid poplar crops
6. Crop planting
  - Weed management strategy and standards
  - Crop layout and manual vs. mechanical planting
  - Choice of planting season and planting conditions
  - Planting logistics, contractors and planting quality control
7. Crop maintenance and improvement
  - Weed management strategy and standards
  - Lack of registered herbicides in Canada for SRIC hybrid poplar crops
  - Fertilization and need for additional research into crop response to fertilization
  - Pruning
8. Growth and yield
  - Survival surveys and inventories – layout and methodology
  - Volume tables
9. Diseases and insects
  - Main disease and insect issues
  - Need for an expanded selection and breeding program for hybrid poplar
10. Economic analysis
  - Discounted cash flow method to assist in economic analysis



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