



Standard 6: Information Acquisition and Analysis

Principle

The management of Canada's natural resources requires the acquisition and analysis of quantitative and qualitative data. Developing comprehensive measurement and sampling skills provides professional foresters with an ability to collect information and understand sources of uncertainty that affect data reliability.

Relevant Components

- Computer modeling and analysis.
- Construction and use of databases and spatial information/analytical tools.
- Field measurement tools, techniques and procedures for the suite of forest values.
- Mapping technology, drafting techniques, photogrammetry, remote sensing.
- Orienteering, field navigation.
- Principles of surveys.
- Public inclusion process.
- Sampling design, and methods.
- Social surveys, questionnaires, public opinion, media.
- Survival and safety skills.

Demonstrable Competency Requirements

A candidate for certification shall be able to:

- 1. Demonstrate an ability to apply basic orienteering and surveying techniques.**
 - a. Read and follow a map, use aerial photographs, use a compass and global positioning technology to navigate in the forest.
 - b. Demonstrate an ability to measure distances and angles.
- 2. Use measurement tools for collecting forest resource data.**
 - a. Describe the commonly used tools and procedures, appropriate application and associated accuracy.
 - b. Employ a variety of measurement and identification tools.
- 3. Design and implement sampling strategies.**
 - a. Demonstrate knowledge of fundamentals of statistics.
 - b. Differentiate among sampling strategies.
 - c. Analyze data collected using simple sampling strategies.

- 4. Analyze simple mathematical models.**
 - a. Express the relationship between variables using mathematical models.
 - b. Interpret output provided by statistical packages.

- 5. Analyze and display both qualitative and quantitative data.**
 - a. Describe techniques for synthesizing data.
 - b. Demonstrate the use of a range of analytical techniques.
 - c. Develop displays, such as maps, relational data bases, graphs, or GIS that are appropriate to a particular use.

- 6. Demonstrate the integration of the competencies identified in this standard, to achieve a given set of objectives.**
 - a. Design and implement a rudimentary sampling plan.
 - b. Analyze and interpret the results.
 - c. Assess whether objectives were achieved.