

Career Sheet: Understanding the Skills used in a Career of My Choice

Career Zone: Natural resources and Agriculture

Career: Foresters

Description: Manage public and private forested lands for economic, recreational, and conservation purposes. May inventory the type, amount, and location of standing timber, appraise the timber's worth, negotiate the purchase, and draw up contracts for procurement. May determine how to conserve wildlife habitats, creek beds, water quality, and soil stability, and how best to comply with environmental regulations. May devise plans for planting and growing new trees, monitor trees for healthy growth, and determine optimal harvesting schedules.

Task Examples:

- Monitor contract compliance and results of forestry activities to assure adherence to government regulations.
- Plan and supervise forestry projects, such as determining the type, number and placement of trees to be planted, managing tree nurseries, thinning forest and monitoring growth of new seedlings.
- Establish short- and long-term plans for management of forest lands and forest resources.
- Determine methods of cutting and removing timber with minimum waste and environmental damage.
- Supervise activities of other forestry workers.
- Perform inspections of forests or forest nurseries.
- Plan and direct forest surveys and related studies and prepare reports and recommendations.
- Direct, and participate in, forest fire suppression.

Technology Skills Examples:

- **Analytical or scientific software** — Forest vegetation simulators; Forest yield software
- **Data base user interface and query software** — Data entry software ; Microsoft Access ; SMART
- **Inventory management software** — Forest Metrix; Fountains Forestry TwoDog
- **Map creation software** — ESRI ArcGIS software ; ESRI ArcView; Geographic information system GIS software ; Mapping software

Software Application Example:

The **Forest Vegetation Simulator (FVS)** is a **forest** growth **simulation** model. It simulates **forest vegetation** change in response to natural succession, disturbances, and management. It recognizes all major tree species and can simulate nearly any type of management or disturbance at any time during the **simulation**.

Features: The FVS software analyzes grow and death of forestry growth affected by:

- Insect and Disease
- Fire and Fuels
- Carbon pollution
- Climate changes
- Economic changes