



# UI Extension Forestry Information Series

## Rx for Good Forestry Decisions

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Forest management decisions can range from large-scale management planning, locating roads for timber harvest, altering habitat to favor specific wildlife species, or doing nothing at all. The best forestry decisions are based on good, complete information.

We are accustomed to making decisions based on many aspects of our lives. For example, no matter what your complaint, when you go to the doctor's office, the nurse first asks the same routine questions, takes your blood pressure and temperature and gathers other information. Then the doctor comes in and does a routine examination in addition to dealing with your specific complaint. They may also ask questions about the environment you live and work in, and about any changes in environment you have noticed. Finally, you get a diagnosis and a prescription for improvement. The doctor and other medical staff do this because they know the obvious problem is often a symptom of a variety of causes that can result from complex environmental interactions with injury and infections. The medical profession knows that the best way to make sure all the necessary information is available to them is through routine examination and questions about the general as well as specific conditions of patients and their environment.

By applying the medical method to forestry decision making, we have the best chance to achieve our objectives with few surprises or disappointments. In modern forestry, we even use some of the same terms as the medical profession. The term *silvicultural prescription* refers to a plan of action to improve forest conditions and achieve specific management objectives. Only through a routine, complete, and accurate collection of properly sequence questions and answers can we develop clearly defined alterna-

tives with known consequences from which to base our objectives.

The diagram on page two shows most of the important factors to consider in a silvicultural prescription. Each landowner must decide how complex and important their specific situation is and what level of professional assistance they need. In most instances, investing in professional assistance will result in a healthier forest that meets landowner objectives including more profitable and sustainable timber harvests, improved wildlife habitat, and soil and water quality protection. Public technical assistance is available from your local state forestry agency or consulting foresters.

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# The Silvicultural Prescription Process

**1. Consider the objective**



**2. Identify stand boundaries**



**3. Evaluate site potential**

FIXED ENVIRONMENT ↙

↘ DYNAMIC ENVIRONMENT

		Physical				Adverse	Biotic
Landform	Soils	Factors	Climate	Wildfires	People	Weather	Factors
Elevation	Depth	Air drainage	Seasonal				Insects
Slope	Erodibility	Moisture	Precipitation				Disease
Aspect	Compactability	Light	Wind velocity				Rodents
Configuration	Drainage	Nutrients	Temperature				Wildlife
Topographic position	Texture	Heat	Daylength				Succession
			Snowpack				Vegetation
							Grazing



**4. Evaluate present stand structure**

- Growing stock
- Merchantability
- Logging history
- Regeneration history
- Qualitative history
- Pathogen history



**5. Consider the characteristics of silvicultural systems**

- Intermediate systems
- Clearcuts
- Shelterwoods
- Seedtrees
- Selection cuts



**6. Identify and consider alternatives**

- Species preference
- Rotation length
- Intermediate culture
- Harvest system
- Site preparation
- Regeneration



**7. Prescribe**