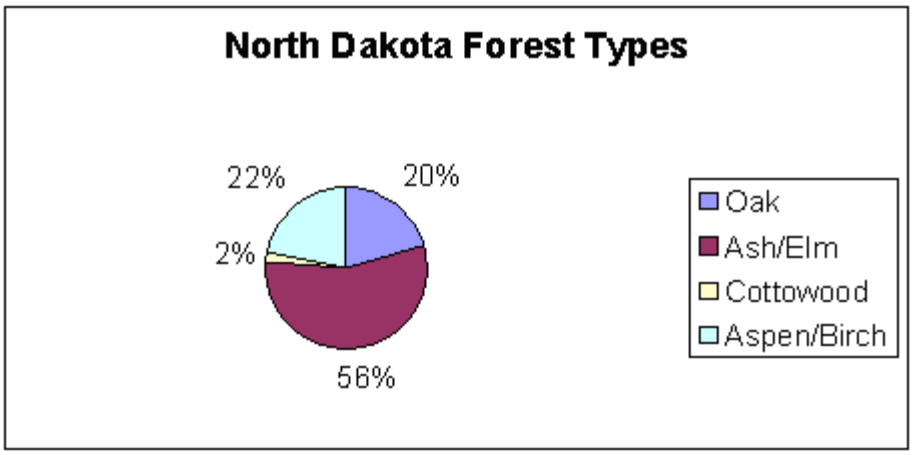
Sheyenne River State Forest, North Dakota

The Forest Resource

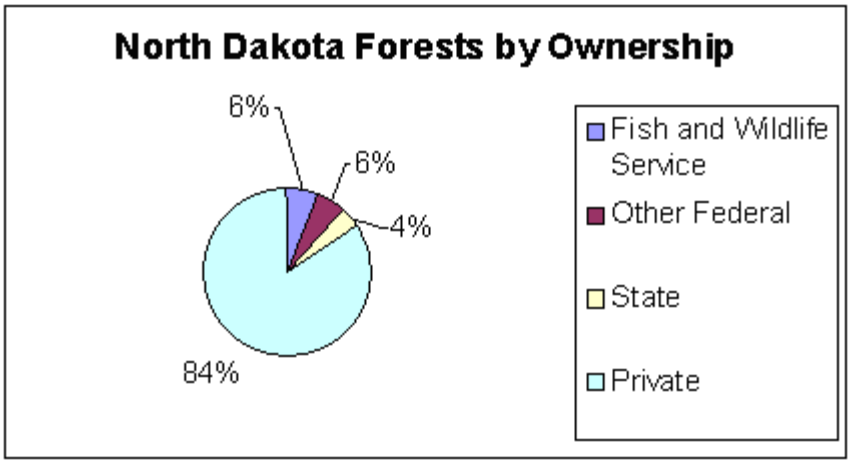
Although North Dakota is primarily a prairie state, native forests are an extremely valuable resource due to their limited size and distribution. Riparian forests and native woodlands constitute the majority of North Dakota's forest resources. In addition, conservation plantings such as windbreaks and living snow fences contribute substantial wooded acreage.

North Dakota's forest resources consist mostly deciduous forests in the eastern half of the state, particularly along riparian corridors. These bottomland forests consist of American elm (*Ulmus americana*) and green ash (*Fraxinus pennsylvannica*). Stands of aspen (*Populus tremuloides*) and bur oak (*Quercus macrocarpa*) can be found in the Turtle Mountains and the north east corner of the state. The western half of the state is characterized by cottonwood (*Populus deltoides*) forests along the Missouri river and pockets of ponderosa pine (*Pinus ponderosa*) and rocky mountain juniper (*Juniperus scopulorum*) in the Little Missouri badlands of the southwest corner.



North Dakota Forest Types	Acreage

Juniper	1,310
Oak	148,719
Ash/Elm	405,342
Cottowood	14,859
Aspen/Birch	159,148
Total acres	**729,378**



Several tree species are used in conservation plantings throughout the state. These plantings are critical for controlling wind erosion, reducing water loss on agriculture lands, distributing snow in winter months, and providing thermal cover for livestock and wildlife.


Ponderosa Pine Windbreak

Special Issues

Riparian Forest Health
Riparian forest health continues to be an issue in North Dakota. Dutch Elm Disease and summer flooding in the lower Red River basin has contributed to forest decline within these areas. In the western half of the state, Cottonwood decline persists due to over-maturity and lack of flooding to promote cottonwood regeneration. Continued and more extensive monitoring of these sensitive forests is needed for future forest health work.

Damaging Forest Agents

Listed below are damaging forest insects, diseases, and abiotic agents of concern in North Dakota.

Gypsy Moth - *Lymantria dispar* (non-native)
Detection surveys are conducted each year in North Dakota for the Gypsy Moth to monitor its possible spread from the Great Lakes Area. No gypsy moths were captured in 2002.

Yellow-headed spruce sawfly - *Pikonema alaskensis*
All native and introduced species of spruce (*Picea* sp.) are susceptible to the yellow-headed spruce sawfly. Every year small to medium sized spruce trees are lost to this insect.

Forest Tent Caterpillar - *Malacosoma disstria*
Defoliation by the forest tent caterpillar increased from 3,045 acres in 2001 to 4,345 acres in 2002 for the Turtle Mountains of north central North Dakota.

Dutch Elm Disease - *Ophiostoma ulmi* (non-native)
Dutch Elm Disease consistently causes elm mortality in urban and rural areas. This disease is a particular problem in riparian forests where American elm is a dominant species.

Sphaeropsis (Diplodia) blight - *Sphaeropsis sapinea*
Sphaeropsis sapinea continues to cause problems in ponderosa pine windbreaks. The incidence and severity of the disease has gradually increased over a 15-year period. Drought conditions in 2002 and expected drought conditions for 2003 suggest that this disease will continue to cause problems.

Ash Decline
A multitude of maladies has resulted in Ash decline throughout the state. Common pests of Ash include: Anthracnose (*Gloeosporium aridum*), ash plant bug (*Tropidosteptes amoenus*), ash fomes (*Perenniporia fraxinophila*), ash borer (*Podosesia syringae*), and ash bark beetles (*Hylesinus* sp.).

Drought
Severe drought throughout the western half of the state will weaken trees and make them more susceptible to insects and diseases.

Chemical damage
Herbicide damage to windbreaks and other tree plantings continues to cause problems throughout the state.

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