



UDELL EXPERIMENTAL FOREST

Manistee County, Michigan



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In 1961, the 3,800 acre (1,538 ha) Udell Experimental Forest was established on the Huron-Manistee National Forest in Michigan as a field laboratory for studying the hydrology of forested glacial sand sites. One of the major objectives of past research was to compare water yields from the primary forest cover types including oak and aspen forests. Because of renewed interest in water quality and quantity from forest ecosystems, Udell Experimental Forest has potential for new research and as a replicate for regionwide field studies.

Assets:

Scientists: No Northern Research Station scientists are currently working on the Udell Experimental Forest.

Cooperators: Huron-Manistee National Forest.

Needs:

Annual operating costs: Currently there are no operating costs associated with the Udell Experimental Forest.

Critical needs: None.

Long-term needs: Develop accurate GIS database including physical and vegetative features and research locations.

More About the Udell Experimental Forest

Location: Lat. 44°15' N, long. 85°24' W

The Udell Experimental Forest is located in Manistee County about 14 miles east of Manistee, MI and 36 miles west of Cadillac, MI and is accessed off of M-55 (a major access highway).

Vegetation: Approximately 70 percent of the Udell Experimental Forest is in oak and aspen forest cover types. Stand composition in these types range from mixed oaks with relatively few aspen to pure aspen stands. There are about 1,500 acres (610 ha) of jack pine and red pine plantations that have been established on the eastern and western outwash plains. In the southeast and northwest portions, lowland hardwood forests of elm, red maple, and occasional northern white-cedar are found.

The Udell Experimental Forest is administered jointly by:

Huron-Manistee National Forest and
U.S. Forest Service, Northern Research Station
271 Mast Road, Durham, NH 03824
603-868-7632

Key Contact: John Brissette, 603-868-7632, email jbrissette@fs.fed.us

Climate: Average temperatures for January range from 16 to 28 °F (-9 to -2 °C). Temperatures in July range from 59 to 80 °F (15 to 27 °C). Average annual rainfall is 32 inches (790 mm). Average annual snowfall is about 96 inches (243 cm).

Research—past and present: Research at the Udell Experimental Forest has focused on the effects of forest type and partial cutting on groundwater yields and pulp and paper mill sludge fertilization of red pine plantations. Numerous reports have been published on changes in stream flow resulting from reforestation and cutting.

Research opportunities: Considerable portions of upland moraines, level outwash plains, and hardwood swamp areas are instrumented with wells and other measurement devices to determine the behavior of groundwater level under existing forest conditions.

Facilities: Field operations are centered at the Pine River Forest Laboratory, 10 miles (16 km) east of the forest near the junction of Highways M-55 and M-37.

More information can be found at: <http://www.nrs.fs.fed.us/ef/locations/mi/udell/>