



# CLOQUET FORESTRY CENTER RESEARCH PAPERS AND REPORTS

FOR THE SEVENTY-FIVE  
YEAR PERIOD FROM  
1912 -1987



MINNESOTA AGRICULTURAL EXPERIMENT STATION  
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**Cloquet Forestry Center  
Research Papers and Reports  
for the 75-Year Period from 1912-1987**

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## PREFACE

This paper provides a listing of reports, theses, and journal articles covering work conducted or materials and services provided at the University of Minnesota, College of Forestry, Cloquet Forestry Center. The listing covers a 75-year period from 1912 to 1987. A total of 652 papers are listed. Although considerable effort was made to make the list as complete as possible it may be that there are some omissions. Hopefully, readers of the list will assist in providing any additional citations or changes that can be inserted in a future update.

The listing is divided into two sections. Section I is in alphabetical sequence by author's last name. Section II provides a cross reference by subject matter with citation numbers referring to the Section I alphabetical listing.

A chronological listing from 1912 to 1960 was compiled by Dr. Bruce A. Brown formerly Director of the Cloquet Forest Research Center. This listing was published in a 1960 Cloquet Forest Research Center brochure and was most helpful in compiling the current list. Also incorporated into the current list are unpublished compilations by Dr. Brown and Dr. Alvin Hallgren, former Coordinator of the Cloquet Forestry Center. Their efforts are acknowledged as well as the help and assistance of the various University of Minnesota faculty and staff who provided additional listings. Karen Nelson, Secretary at the Cloquet Forestry Center provided appreciated assistance in compiling and editing the list.

## DESCRIPTION OF THE CLOQUET FORESTRY CENTER

The Cloquet Forestry Center is located about 25 miles west of the western-most tip of Lake Superior in the St. Louis River drainage system. The forest is near latitude 46°42'N and 92°32'W longitude. The topography is gently rolling and ranges between 1230 and 1290 feet above sea level. The climate is continental with a mean annual temperature of 39.2°F and average annual precipitation of 30.0 inches. About 60 percent of the precipitation comes during the growing season from May to late August.

The forest contains 3,340 acres. About two-thirds of the acreage is in upland forest consisting of red, white and jack pine; spruce-fir, and aspen-birch. The remaining one-third is lowland forest primarily black spruce, tamarack, northern white cedar and lowland brush. The entire surrounding area was burned in the 1918 Cloquet-Moose Lake fire. But the Cloquet forest largely escaped this fire which makes it a unique ecological area with age classes at least 20-25 years older than the adjacent lands. The forest contains a substantial acreage of old-growth red pine left uncut by the logging companies' operations in the area.

The upland forest types are found on loamy sands and sandy loams. Peat soils predominant in the lowland areas. The site productivity is high for conifers with pine site indexes in the 60 range (base of 50) and species such as black spruce having site indexes in the mid-40's. Young stands of pine are growing in excess of one cord per acre per year with two cords per acre per year common. The forest has been under active management with management plans prepared in 1929, 1939, 1949 and completely updated in 1981 and 1987. Many of the stands have been harvested and second generation growth is well established. Although wildfire has been precluded from the area for nearly 80 years, there are fire scars on old growth red pine dating to 1842, 1855, 1864, 1874 and 1894.

The Cloquet Forestry Center is an integral part of the University of Minnesota College of Forestry. It is the oldest experimental forest under continuous operation by a university in the United States. It was established as a result of federal and state legislation in 1909. The original charge of the Cloquet Forestry Center was research work. The first experimental studies were established in 1911 and the first publication dates to 1912.

In 1924, undergraduate educational field sessions began at Cloquet and have been continuous since then. The forest has served as an excellent field laboratory and has been heavily used for a variety of research projects as can be noted from the following list of 652 papers. At least 28 Ph.D theses and a minimum of 65 master degree theses and papers have been associated with the Cloquet Forestry Center. The research has been oriented toward silvicultural studies, timber harvesting, forest pathology and wildlife with concentration on ruffed grouse ecology and management, but a large variety of other subject matter has been included.

The Cloquet Forestry Center continues to be heavily used for research as well as education and demonstration. There is currently an active management program and many of the mature and overmature stands are being cut and regenerated. The facilities are modern and continue to be updated making it an attractive location for a variety of forestry related natural resource projects.

SECTION I: Alphabetical listing by author's last name.

1. Aherin, Robert, L. Schultz and A. S. Reed. 1981. Logging accidents, reducing the odds. Univ. Minn. Agr. Ext. Serv. Folder 572. 4 p.
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