

NASA Plans High Recon Of Minnesota Forests

A high-flying reconnaissance airplane of the National Aeronautics and Space Agency (NASA) Earth Resources Division will be used next summer to study tree diseases in northeastern Minnesota in a project with the University of Minnesota's School of Forestry.

University forestry researchers are no strangers to the NASA aircraft. Professors Arnett C. Mace, Jr., and Merle P. Meyer utilized the camera- and instrument-laden NASA aircraft late last August to gather information on a forest watershed study area in Itasca County.

Last summer's work was part of the world-wide preparation for the launching of the Earth Resource Technology Satellite (ERTS) in 1972. Meyer said the satellite would provide information on broad forest, cropland and rangeland conditions and changes.

Mace and Meyer were expecting to go to the NASA Manned Space Center in Houston to review the aerial photographs and other data produced by last summer's flight.

Meanwhile, Meyer and Professor David W. French of the University Department of Plant Pathology are making plans for flights this coming summer. Meyer and French said the aerial detection studies of the "dwarf mistletoe" disease in black spruce will be done in northeastern Minnesota. A grant from NASA will help finance the project.

The University researchers will be using panchromatic, color and infrared films and thermal heat sensors in the aerial surveys to detect the disease and study its characteristics. Information from the flights will be used to design detection and control programs both in Minnesota and in other parts of the United States and the world.

Tree Damage Increasing From Salt Use on Highways

Premature defoliation and dying of roadside trees has been occurring over widespread areas of the U.S. and Canada, reports John M. Skelly, plant pathologist at Virginia Tech.

Roadside maples have been declining at a rapid rate in recent years as have white pines, hemlocks and other coniferous species, he said.

Use of salt on the highway is causing the damage, Skelly explained. Relief from this type of damage—if salt use is to be con-

tinued—involves preplanning highway construction, through the use of drainage ditches and/or placement of trees to be planted, Skelly said. Under forested conditions, no feasible control has been developed except through road planning, he added, but roadside trees may be helped through heavy watering and fertilization practices.

Salt damage symptoms are seen on the leaves during the following season and usually involve a marginal scorch, premature leaf coloration and dying branches accompa-

nied by a gradual decline in vigor, he said. If severe decline develops death will follow, he added.

Symptoms on hemlocks, white pines or other conifers involve brown needles, stunted growth, sparse foliage, lack of vigor, and again death.

Occurrence of salt damage depends upon the location of the trees with respect to the slope of the road. Obviously, trees located below the road or on drainage areas will receive the greatest amounts of salt in the melted snow runoff.

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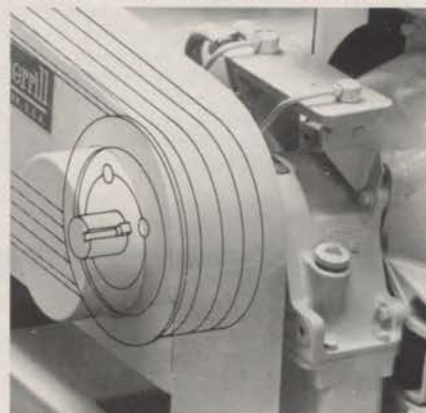


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