

PRODUCTION AND COST OF TRACTOR-BASED HARVESTING SYSTEMS IN FOREST THINNING OPERATIONS

Damon Hartley

Tractor-based harvesting systems have been options for small landowners in Scandinavian countries. The systems require small capital investments, allowing economic feasibility when performing small-scale thinning operations. In the interior Northwest, this type of system is a relatively new idea for landowners that want to manage their own forestlands. As a result, the knowledge of how the tractor harvesting systems perform in stand conditions and terrain of this region is limited. The objectives of this study are to determine the harvesting productivity and cost of two tractor-based harvesting systems used to thin conifer stands in Oregon and Idaho. Both systems heavily depended on one machine carrying out multiple tasks in its operation. Each phase of activities were evaluated in terms of its productivity. Detailed outcomes from this study describes productivity and limitations in the winching, processing, loading, and forwarding processes.

Author

Damon Hartley
College of Natural Resources
Department of Forest Products
University of Idaho
Moscow, ID 83844-1132
hart651@uidaho.edu