

HARVEST SITE IMPACTS OF CUT-TO LENGTH AND FULL-TREE HARVESTING SYSTEMS

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ABSTRACT.—The effects of forest operations, such as harvesting, on the physical attributes and ecology of a forest stand can be considerable. One of the most significant impacts of the movement of harvesting machinery through the stand is its effect on the soil, and the future productivity of the site. Much effort has gone into the development of equipment systems that minimize the impact of machine operations on the site. Cut-to-length harvesting systems are a recent development that have unique capabilities to minimize site impacts while maintaining adequate levels of productivity. As part of a larger project evaluating the effects of management operations in riparian management zones, the site impacts of a cut-to-length harvesting system were compared to a more conventional full-tree harvesting system. Results indicate that each system has unique operating characteristics and their soil impacts are predictable. Selection of harvesting equipment can be made on a site specific basis to minimize negative impacts.

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