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Influence of cutting form on the harvester productivity and costs

Abstract

One of the principles of realization sustainable forest management in Polish conditions is a reduction of forest area harvested in mature stands on the clearcuts. Instead of that some kinds of other complex cutting form are preferred. The aim of this paper is to present how different kinds of cuttings influence on the harvester productivity and what are the economical consequences of bringing of these balanced forestry guidelines into effect. Three Scots pine stands were taken under consideration, in which by harvesting Timberjack 1270B was applied. Each stand was cut other way: on the clearcut, in group cutting and in selection cutting. The reached harvester productivity was the highest on the clear cut, amounting 32,6 m³/h. In two others cutting forms harvester productivity decreased adequately about 7,5 and 22,7%. This situation will affect an economical running of forest operations activity.

Key words: harvester, productivity, clearcut, group cutting, selection cutting