

## **Productivities of ordinary and line thinnings using a small harvester and forwarder in Japan**

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This study aimed to establish a CTL system in gentle terrain in Japan. To that end, ordinary and line thinning operations were analyzed using a small harvester and forwarder newly-introduced from Europe. A SR1046Pro harvester with KETO-100S and a VIMEK608 forwarder were also used. The productivity of felling and processing operations for ordinary thinning was 15.9 m<sup>3</sup>/hour based on a timber volume of 0.40 m<sup>3</sup>/tree and a mean run distance in the forest of 269 m, while that for line thinning was 21.1 m<sup>3</sup>/hour with 0.57 m<sup>3</sup>/tree and 301 m of running. The productivity of the forwarding operation for ordinary thinning was 4.1 m<sup>3</sup>/hour with a mean forwarding distance of 513 m (including 135 m running in the forest), while that for line thinning was 3.8 m<sup>3</sup>/hour with 610 m of running (232 m). Thus the productivity of labor of this CTL system for ordinary thinning was 3.1 m<sup>3</sup>/man-hour, and that for line thinning was 3.1 m<sup>3</sup>/man-hour.