

Analyzing the relationship between thinning costs and stand attributes

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This paper analyzed the cost of thinning plantation forest stands. The study area comprised sub-compartments of coniferous plantations owned by individuals in Hayakawa Town, Yamanashi Prefecture. First, the site index was estimated for each sub-compartment using a geographic information system (GIS). Next, the average height, density, stand volume, and yield index were estimated for each sub-compartment. In addition, candidate sub-compartments were chosen from the plantation forests using GIS. Finally, the thinning costs were calculated for each sub-compartment according to their attributes, and relationships between the costs and their attributes were analyzed. In summary, the sub-compartment area had the most influence on the thinning costs and the thinning cost per volume was low when the sub-compartment area was large.

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