


Mokuzai Gakkaishi  JWRS
The Japan Wood Research Society

[Available Issues](#) | [Japanese](#) >> [Publisher Site](#)

Author: Keyword: [ADVANCED](#)



[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1880-7577

PRINT ISSN : 0021-4795

Mokuzai Gakkaishi

Vol. 51 (2005) , No. 6 p.394-401



[\[Image PDF \(660K\)\]](#) [\[References\]](#)

Growth and Wood Properties of Sugi (*Cryptomeria japonica*) Cultivars Planted in the Kyushu Region

Syunji TSUSHIMA¹⁾, Shinya KOGA²⁾, Kazuyuki ODA²⁾ and Susumu SHIRAISHI²⁾

1) Oita Prefectural Agriculture, Forestry and Fisheries Research Center

2) Faculty of Agriculture, Kyushu University

(Received March 14, 2005)

(Accepted June 10, 2005)

Abstract: This study examined growth and wood properties of sugi (*Cryptomeria japonica* D. Don) cutting cultivars planted in the Kyushu region. Sixteen cultivars (48 trees) which were identified based on MuPS (Multiplex-PCR of SCAR markers) types were used.

Each cutting cultivar showed peculiar growth. The intra-cultivar variations in green moisture content of heartwood were small whereas the inter-cultivar variation was large. There were statistically differences in the L^* and a^* values of the heartwood color between cultivars, and a negative correlation of the L^* value with green moisture content was found. There was also significant difference in wood density between cultivars, and the neutral and the late-growth type cultivars showed larger basic density than the precocious-growth type cultivars. A significant difference in dynamic Young's modulus was also found between cultivars, and there were two axial variation patterns. In one pattern the dynamic Young's modulus increased with stem height, and in the other it was almost constant except at the position of the butt log where it had the lowest value. The former was the neutral or late growth type and the latter was the precocious type. There was a significant difference in the bending load-deformation curve of clear test specimens between cultivars or growth types.

Keywords: sugi, cultivar, MuPS, growth, wood property



[\[Image PDF \(660K\)\]](#) [\[References\]](#)

Download Meta of Article [\[Help\]](#)

[RIS](#)

[BibTeX](#)

To cite this article:

Syunji TSUSHIMA, Shinya KOGA, Kazuyuki ODA and Susumu SHIRAISHI: Mokuzai Gakkaishi Vol. 51, No. 6, 394-401 (2005) .

doi:10.2488/jwrs.51.394

JOI JST.JSTAGE/jwrs/51.394

Copyright (c) 2006 by The Japan Wood Research Society



[Japan Science and Technology Information Aggregator, Electronic](#)

