

**PENGARUH PERLAKUAN GIBERELIN TERHADAP PEMBENTUKAN
KAYU TARIK SEMAI SENGON
(*Falcataria moluccana*)**

Ali Fian Joni Nuryanto¹ dan Widyanto Dwi Nugroho²

INTISARI

Kayu reaksi sering di jumpai pada tanaman cepat tumbuh seperti sengon (*Falcataria moluccana*). Kayu reaksi merupakan respon dari tanaman untuk memulihkan batang atau cabang yang terdesak ke keadaan asalnya karena adanya pengaruh dari lingkungan. Kayu reaksi yang terjadi pada tanaman dari kelompok kayu daun lebar disebut kayu tarik. Kayu tarik biasanya ditandai dengan adanya lapisan gelatin (*G-layer*) pada sel serabut dan rendahnya kandungan lignin pada dinding sekunder. Pada penelitian ini dibahas mengenai pengaruh hormon giberelin terhadap sudut pemulihan batang, lebar zona kayu tarik, tebal *G-layer* dan struktur anatomi kayu tarik. Selain itu juga diamati pengaruh posisi kayu pada batang yang miring terhadap struktur anatomi kayunya.

Penelitian ini dilakukan dengan menggunakan semai sengon yang dimiringkan 45° dan diberi 2 perlakuan hormonal. Perlakuan hormonal yang diberikan adalah kontrol (air suling) dan hormon giberelin (GA3) dengan konsentrasi 0,01% (w/w). Bagian yang diamati terdiri dari kayu tarik dan kayu *opposite*. Sebagai pembanding, diamati juga kayu normal.

Hasil penelitian menunjukkan bahwa hormon giberelin memberikan pengaruh terhadap lebar zona kayu tarik. Bagian kayu tarik memberikan pengaruh terhadap diameter sel serabut dan tebal dinding sel serabut.

Kata kunci: giberelin, kayu tarik, kayu *opposite*, sengon

¹ Mahasiswa Fakultas Kehutanan, Universitas Gadjah Mada, Bulaksumur, Yogyakarta

² Staf Pengajar Fakultas Kehutanan Universitas Gadjah Mada, Bulaksumur, Yogyakarta

Effects of Gibberellin Treatment on Tension Wood Formation in Sengon (*Falcataria moluccana*) Seedlings

Ali Fian Joni Nuryanto¹ and Widyanto Dwi Nugroho²

ABSTRACT

Reaction wood is often found in fast growing species such as sengon (*Falcataria moluccana*). Reaction wood is a response from the plant to restore the stem or branch that is pressed to its normal condition because of the influence of the environment. The reaction wood that occurs in hardwoods is referred to tension wood. Tension wood is usually characterized by the presence of gelatinous layer (G-layer) in the fiber cells and lower percentage of lignin in the secondary wall. This study discusses about the effect of giberelin hormones to stem recovery, width of tension wood zone, thickness of G-layer and anatomical structure of the tension wood. Furthermore, it was also observed the influence of the wood positions on the stem that tilted to its wood anatomical structure.

This research was carried out using 45 ° sengon seedlings and 2 hormonal treatments. The hormonal treatments given were control (distilled water) and giberelin hormone (GA3) with a concentration of 0.01% (w / w). The observed part consists of tension wood and opposite wood. As a comparison, normal wood was observed.

The results showed that gibberellin hormone had an effect on the width of tension wood zone. The part of tension wood has an influence on the diameter of fiber cell and the thickness of fiber cell wall.

Keywords: gibberellin, tension wood, opposite wood, *Falcataria moluccana*

¹ Student of Faculty of Forestry UGM, Bulaksumur, Yogyakarta

² Lecturer of Faculty of Forestry UGM, Bulaksumur, Yogyakarta