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## Enzymatical Studies related to wood production in Eucalyptus

N. Toghraie<sup>1</sup>

D. Parsapajouh<sup>2</sup>

A.Hosseinzadeh<sup>3</sup>

S.A.A Korori<sup>4</sup>

### Abstract

To make a primary investigation on lignin content variation related to content of peroxidase enzyme in different seasons and sites, We sampled from four regions in two season, The eucalyptus (*Eucalyptus camaldulensis*) trees.

Qualitative and quantitative survey was done PAGE and spectrophotometry methods.

The Content of Klason lignin was determined using extractive free wood sawdust.

The results show that peroxidase isoenzymes patterns change due to region and season. This can be understood as a part of tree physiological preparing period against coldness. It was also observed that there are differences between ecological regions and between trees in the same region. Genetically the lignin content in Khuzistan region decreased in winter and so did enzyme activity. The content of lignin was related directly to branch diameters and enzyme activity.

**Keywords:** Lignin, Peroxidase, PAGE, Lignification, Eucalyptus Camaldulensis

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<sup>1</sup> -Research inst. Of Forests and Rangelands

<sup>2</sup> -Culty of Natural , University of Tehran, Karaj

<sup>3</sup> -

<sup>4</sup> -