GENETIC EVALUATION OF SOME CINNAMON (CINNAMOMUM VERUM PRESEL) PROGENIES

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KOLAMBAGE PADMASIRI PERERA.

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ABSTRACT

Studies were made on leaf and yield characters and chemical (quality) constituents of 11 progenies of Cinnamomum verum, pressl.

Variability, heritability, interelationship and genetic advance for different characters were estimated using ANOVA, half sib analysis, correlation and regression methods. High variability and heritability indicated the possibility of mass selection for characters such as total wet weight of harvested shoot, stem, branch, leaf and dry bark yield. Wet weight of bark and quality characters (bark oil %, leaf oil %, cinnamaldehyde % in bark oil and eugenol % in leaf oil) were less heritable. Selections based on total wet weight of harvested shoots, were more effective in increasing the yield than direct selection for dry bark yield.

Correlation studies showed no significant relationship for yield vs any quality character or leaf oil vs bark oil and hence yield and quality have to be considered at the same time. Cinnamaldehyde % in bark and eugenol % in leaf are positively and significantly correlated.

Three plants (W-37/3, W-16/1 and W-17/9) with high dry bark yield and high quality characters were identified.