



Modeling of stem taper models for *Chamaecyparis obtusa* in Jeju Island, Korea

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This study was conducted to fit the different commonly used stem taper models in predicting the diameter over bark at any given height (d) and total volume of *Chamaecyparis obtusa* in Jeju Island, Korea. The performance of the stem taper models were evaluated using four fit statistics and these were standard error of estimate (SEE), mean bias (

), absolute mean difference (AMD), and coefficient of determination (R^2). Lack-of-fit statistics were also determine and in this study, SEE, AMD and

of the different models in predicting d in the different relative height classes and in predicting the total volume in the different diameter at breast height (DBH) classes were calculated. Results showed that the Kozak model 02 stem taper had the best performance in all fit statistics with SEE of 1.3327,

of 0.0020 cm, AMD of 0.9970 cm and R^2 of 0.9958. Based on the lack of fit statistics, this model also showed a good performance in predicting d in most of the relative height classes and in estimating the total volume in the different DBH classes. The result of this study could help forest managers to determine the d , merchantable stem volumes and total stem volumes of *Chamaecyparis obtusa* in Jeju Island, Korea.