



Research Paper

Validation of two parameter function height diameter models

■ M. Iqbal Jeelani, Manish Kr Sharma, Anil Bhat and Mansha Gul

See end of the paper for authors' affiliations

Correspondence to :

M. Iqbal Jeelani

Faculty of Basic Sciences,
Sher-e-Kashmir University
of Agricultural Sciences and
Technology of Jammu,
Jammu (J&K) India
Email : jeelani.miqbal@gmail.com

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ABSTRACT : Eleven nonlinear height diameter models were fitted and developed for Pinus trees based on individual tree height and diameter at breast height data (n=300) collected from block Langate of Kashmir province in India. Fitting of height diameter models using non-linear least square regression showed that all the parameters across all models were significant. In order to test the predictive performance of the models 10- folded cross-validation technique was used in this study. Comparison of AIC, RMSE, ME and Ad-R² values for the training and validation data showed that most of the non-linear HD models capture the height diameter relationships for Pinus trees. Validation results suggest that Naslund -2 HD model provide the best height predictions in case of Pinus tree.

KEY WORDS : Height, Diameter, Cross validation, Pinus

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