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Modelling of growth for pure, even-aged and natural Calabrian pine (*Pinus brutia* Ten.) stands in Burdur-Ağlasun Region

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Abstract: In this study, a variable density yield table is constructed for pure, even-aged and natural Calabrian pine (*Pinus brutia* Ten.) in Burdur-Ağlasun region. The data are obtained from 139 sample plots. Stand age is 21-112, site quality class I.-III. and stand density degree 1.189-6.851. The dependent volume table being functions of stand age, site quality class and stand density degree. The findings are obtained from stand density degree dependent yield table are in agreement with the known rules and laws. In this study, the results are obtained as follows; 1) As number of trees decreases according to age progression for the same site quality class and stand density degree but stand basal area, stand volume, mean diameter and mean height are increases, 2) The same site quality class and for stand ages, the density of the stands is decreasing, while the basal area, volume, number of trees and mean height are increases, 3) As the same stand density degree and stand age; stand basal area, stand volume, mean diameter, mean height is increase while the number of trees is decrease, 4) The number of trees in the stand, the basal area and the volume increase while the mean diameter decreases as the stand density degree increases for the same stand age and site quality class, 5) The number of stand trees is increasing according to the number of trees although it decreases due to the age and the site quality class, 6) Decreased stand volume decreases as stand age and site quality class improve and stand density degree ratings decrease, summarized in this way.
Keywords: Calabrian pine, Age, Density degree, Site quality class, Density dependent volume table