Abstract
This study aims to identify correlations between growth variables and the Dickson quality index in seedlings of Eucalyptus grandis and Pinus elliottii var. elliottii. The experiment was conducted in a greenhouse and the following variables were observed: stem base diameter, shoot height, number of leaves, leaf dry matter, stem base dry matter, root dry matter, shoot dry matter, total dry matter, ratio of shoot dry matter to root dry matter and ratio of shoot height to stem base diameter in E. grandis 60, 75, 90, 105 and 120 days after seedling emergence, and in P. elliottii 25, 50, 75, 100, 125, 150 and 175 days after seedling emergence. Using Pearson correlation and also path and regression analyses, correlations were analyzed between observed variables according to day after emergence and the Dickson quality index. Stem base diameter was found to have stronger correlation with days after emergence in comparison to shoot height, in both species. Root dry matter was found to have stronger correlation with the Dickson quality index. Stem base diameter was the most suitable parameter to indicate seedling quality due to its higher correlation level with the Dickson quality index. Shoot height was only effective to indicate seedling quality if analyzed together with stem base diameter. Variables relating to dry matter showed the highest correlations with the Dickson quality index (DQI), followed by stem base diameter. Conversely, number of leaves showed the poorest correlations with DQI, followed by seedling height.

Keywords
Eucalyptus grandis, Pinus elliottii, path analysis, regression analysis, linear correlation.