



Turkish Journal of Agriculture and Forestry

Turkish Journal

of

Agriculture and Forestry

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Biomass Tables of Black Alder (*Alnus glutinosa* Gaertn. subsp. *barbata* (C. A. Mey.) Yalt.)

Nedim SARAÇOĞLU Zonguldak Karaelmas Üniversitesi, Bartın Orman Fakültesi, Orman Mühendisliği Bölümü, Bartın-TÜRKİYE Abstract : The objective of this study was to estimate biomass per tree for *Alnus glutinosa* Gaertn. subsp. *barbata* (C. A. Mey.) Yalt. stands in the east Black Sea region of Turkey, Dry-weight tables constructed by means of the material collected from 86 sample trees chosen in 19 trials in the Black Sea region between Persembe and Kemalpaşa within 10-1510 m altitude. Sample plots were established 0.04 ha in size in stands of various maturity stages, sites and density classes within the specified population. The plots were laid as squares (20x20 m) using the N-S and E-W cardinal directions. All living and dead trees larger than or equal to 5.1 cm dbh were measured and recorded in all sample plots. Where possible, at least two sample trees of average health and vigor and of unbroken top from each dbh class of living trees and from different heights within the dbh classes were selected for mass and volume sampling. Each sample tree was cut at approximately 0.30 m above ground level. On each living tree height, diameter, double bark thickness and total age were measured. All the branches of the trees were cut, subdivided and piled separately in three groups. All leaf-bearing twigs and leaves were removed from the live branches. New cones and the old cones of the previous years were collected and piled separately. The main stem was cut at 1/3, 2/3 and the top of merchantable height. Green mass of the three sections of the merchantable stem, large live branches, small live branches, dead branches, new and old cones were taken and recorded separately. Green mass of twigs and leaves were taken and recorded together. Green mass the top portion of the main stem was taken and recorded. One bunch of samples of twigs and leaves (each sample being about 150 gr), some samples from each pile of cones, two sample disks (8 cm to 10 cm length) one from the large and one from the small living branches, four sample disks 3 cm to 4 cm in thickness from the breast height, the lower and of the sections 1/2, 1/3 and of the top of the merchantable stem were collected. All the samples were put in polyethylene bags and brought to the laboratory for further measurements. The annual rings and diameters on the lower side of each disk taken from the stem were measured. A wedge was cut from each disk taken from the stem for wood density measurements. The green-mass and oven-dry-mass measurements of the disks taken from the stem, leaves and twigs were taken. The following equation was used to estimate oven-dry weights of single tree components and whole tree. $KA + b_0 + b_1 d + b_2 h$ Least square techniques were used to calculate coefficients and statistics. Then this equation was used to produce figures for oven-dry weights of tree components per tree and whole tree.

Turk. J. Agric. For., **24**, (2000), 147-156.

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