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Title: Pomological Properties and Proximate Analysis of Native Chestnut (*Castanea sativa* Mill.)

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Abstract: There are some natural stands of chestnut in Isparta (Turkey) with a great number of different genotypes. Our purpose was to select suitable genotypes combining general quality, large nut size and suitability for chestnut paste. In 2002, native chestnut populations were surveyed with respect to health, tree vigor and nut size. After the accessions with small nut size were eliminated, 32 native chestnut trees were chosen for evaluating morphological, phenological and pomological characters according to UPOV methods during two growing seasons (2003- 2004). Most of the accessions ripened in the first half of October. Average nut weight ranged between 10.66 g and 31.73 g (100 and 39 nuts per kg). Shell thickness varied from 0.26 mm to 0.52 mm. The highest kernel weight was 28.22 g, and, the lowest was 9.11 g. Two accessions (D-22 and D-49) had typical chestnut color according to $L^*a^*b^*$ values. Peeling of the testa varied from difficult to moderately easy and testa penetration into the seed was moderate. Thirteen promising accessions (designated D-48, D-5, D-49, D-50, D-26, D-51, D-28, D-30, D- 25, D-9, D-18, D-41 and D-10) were selected with the weighted ranking method on the basis of yield, nut and kernel characteristics for conservation of *C. sativa* germplasm and breeding efforts. Chemical analyses were also conducted on these 13 accessions. The range of constituents (dry matter basis) were as follows: ash 1.3 to 2.8 g 100g⁻¹; crude protein 6.57 to 11.05 g 100g⁻¹; starch 26.03 to 35.21 g 100g⁻¹; total sugar 9.17 to 22.48 g 100g⁻¹ and fat 0.62 to 2.81 g 100g⁻¹.