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**Determination of Pollen Production and Quality of Some Local and Foreign
Walnut Genotypes in Turkey**

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Abstract: The pollen grains of 32 different walnut cultivars and types were tested in vitro to determine their viability, germination ability, and pollen production level. Viability of pollens was determined by TTC and FDA tests. The hanging drop method and agar in petri method were used for pollen germination. Pollen production of the cultigens was determined with the hemacytometric method. The rate of pollen viability of all the investigated cultigens was high (> 80%). The germination rate of the pollens ranged from 33.28% to 50.19% and the Van 4 cultivar had the highest pollen germination rate. Although similar results were obtained with the 2 germination tests, higher sucrose concentration (15%) resulted in better germination percentages. Pollen production of the walnut cultivars and types were higher than in previous reports. The range of total pollen grain production of the walnut trees was estimated to be 5-100 billion.

Key Words: Walnut, pollen, quality, production

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