

EVALUATION OF DIFFERENTIATION BETWEEN ROMANIAN WALNUT CULTIVARS AND THOSE WITH LATERAL BEARING FROM WARMER AREAS

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Abstract. Walnut (*Juglans regia* L.) is a fruit tree crop grown in over 50 countries around the world with a total production of over 3,458,046 tons/year in 2013 (FAO State Database, 2016). The production is growing from year to year, however demand is higher than production globally. In recent decades, in the walnut culture, two kinds of cultivars are used: terminal fruit bearing cultivars from the temperate zone (Romania, Germany, England, Serbia, Czech Republic, Russia, Republic of Moldova, etc.); lateral fruit bearing cultivars originating in the warmer areas of Iran, Spain, USA (California), and more recently in countries such as France, Chile, Greece, Australia, etc. Terminal fruit bearing cultivars (including Romanian walnut cultivars) differ from those with lateral fruit bearing habit: better resistance to low temperatures (tolerate temperatures of -26°C, -28°C, those with lateral fruit bearing are affected at -20°C, -22°C); lower susceptibility to blight (caused by *Xanthomonas campestris* pv. *juglandis*); lower fruit yields (2.0-3.0 t/ha for terminal bearers and from 3.2 to 3.8 t/ha for lateral bearers); less expensive cultivation technology.

Keywords: nut crops, walnut, *Juglans regia*, cultivars, growing.

1. Introduction

The walnut (*Juglans regia* L.), named Carpathian, English or Persian, is grown in more than 50 countries worldwide in both hemispheres.

The global walnut culture is booming because of its economic benefits and high demands on the market.

The request for walnut kernels is much higher than the current world production.

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