

The Behaviour of some Plum Cultivars in the Centre of Transylvania

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SUMMARY

The plum remains the most important and the traditional fruit species in Romania due to the nutritional value of the fruits and the productivity and ecological plasticity of the cultivars provides an almost sure economic efficiency (Cociu, 1997; Ardelean and Sestraș, 1999). At the Fruit Research Station of Cluj no studies had been made regarding the behaviour of the new plum cultivars, that's why the present range of plum cultivars is very poor and with low productivity. The research carried out in 2004-2009, regarding the reaction of some plum cultivars in the centre of Transylvania lead to the following results: From the phenological point of view, the studied cultivars are suitable for the climatic conditions of the region, although there were differences regarding temperatures and rainfall. High yields of good quality fruit were obtained in some cultivars. Tree vigour was estimated by measuring trunk diameter. The following cultivars were placed on top three: Hackman, Silvia and Record, in which trunk diameter oscillated between 143.5-147.2 mm and, on the last three, Tamaioasa de Bistrita, Valor and Minerva, 107.2-123.2 mm. The most valuable cultivars from the production point of view of pr are: President, Valor, Stanley, Minerva, Tuleu Gras, Silvia, with the average, in 5 years, of 26.0-44.0 kg/tree, respectively 13.0-22.0 t/ha in the competition culture with 17 cultivars. In the experiment with 14 cultivars: Black Prince, Pescarus, Carpatin, Anna Spath there were 12-23 kg/tree, respectively 5.9-11.5 t/ha as compared to the controls Vanat de Italia 10.0 kg/tree and Vanat romanesc 9 kg/tree. Fruit quality was good, the fruits being big, beautiful, especially in cultivars: President, Minerva, Tuleu Gras, Silvia, Stanley, Carpatin, Anna Spath. Regarding disease resistance, the following cultivars were noted: Agen 707, Blue Free, Centenar, which have an insignificant degree of riddling. For red spot, the degree of attack is insignificant in all the cultivars in the competition culture. It is recommended expanding into production the following cultivars: President, Valor, Stanley, Minerva, Tuleu Gras, Silvia, Carpatin, Anna Spath and Black Prince. The cultivars Vanat de Italia and Vanat Romanesc do not meet the minimal requirements for growing further.

Keywords: plum, cultivars, biochemical composition, crop

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