

## Pepper Cultivar Trial in the Net-House – Yair Research Station 2007/8

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### **Abstract**

In recent years, there has been an increase in the amount of area in the Arava Region and Sodom Valley that is devoted to pepper production. For the 2007/8 growing season, this region accounted for more than 1,600 hectares of the 2,900 hectares of pepper nationwide. Sixty-six cultivars were evaluated in a pepper cultivar trial conducted in a net-house at the Yair Research Station. Most of these cultivars possessed enhanced resistance, generally to TSWV. The trial included 44 red cultivars, 16 yellow cultivars and six orange cultivars from 13 different seed companies. The experiment included two transplanting dates, 6 August and 20 August. Agro-technical practices, irrigation, fertilization and crop protection activities were carried out in accordance with the extension service's recommendations for the Arava Region. Harvesting began on 25 October 2007 and was completed on 15 April 2008; there were a total of 15 harvests. The fruit was sorted at the Quality Center at the Yair Research Station, according to the standards for export-quality fruit. Export-quality fruit was stored using a system that simulated export conditions, and fruit quality was evaluated again after the storage period. The table below shows the quality scores, averaged across all of the cultivars.

Experiment	Total yield (kg / m <sup>2</sup> )			Export-quality yield (kg / m <sup>2</sup> )		
	Average	Minimum	Maximum	Average	Minimum	Maximum
Early transplanting (6 Aug.)	9.0	6.5	12.6	5.1	1.1	8.3
Late transplanting (20 Aug.)	8.6	6.8	11.2	5.7	2.5	8.1

The control cultivar 7158 (Zeraim) transplanted on the earlier date (6 August) produced a total yield of 12.6 kg/m<sup>2</sup> and an export-quality yield of 8.3 kg/m<sup>2</sup>. For the later transplanting date (20 August), this cultivar produced a total yield of 10.9 kg/m<sup>2</sup>, and yielded 10.9 kg/m<sup>2</sup> of export-quality fruit. In this experiment, this cultivar had better yields than any of the other cultivars. Among the test cultivars, the red cultivars 7245 (Zeraim), Compass (Soli), Zin (Hazera) and Infinity (Green 2000) (early cultivars), 7182 (Zzeraim) and Vallrio (Milchan) (mid-season cultivars) and the late-cultivar Copla (Soli) and Sairus (Hazera), as well as the yellow cultivars Lirica (Soli) and 628 (Green 2000), all had relatively high yields and produced high quality fruit. All of these cultivars were added to the list of recommended cultivars. We propose that the red cultivars Boleria (Soli), 7305 (Zeraim), 14511 Bungee (Efal), 4-06 (Makhteshim), 5049 (Mediterranean Seeds), 6603 Shani (CTS), 8018 Sir John (Hazera); the yellow cultivars Liri (Hazera) and 4405 Limona (CTS); and the orange cultivar Arncia (Soli) be evaluated in an additional experiment.