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**Effects of Plant Density and Number of Shoots on Yield and Fruit
Characteristics of Peppers Grown in Glasshouses**

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Abstract: Plant density and pruning systems play a key role in the effective use of the area inside the greenhouse. Pepper (*Capsicum annuum* L.) cultivars, Amazon-long green and Balo bell-shape type, were grown in the winter cultivation period in a glasshouse. A constant space of 80 cm between rows with different within-row spacings (45 cm, 30 cm and 15 cm) and shoot numbers (between one and four shoots per plant) were applied to optimize plant density and number of shoots. Wider within-row spacing and higher shoot numbers per plant increased the number of leaves. However, the individual leaf blade area was higher for narrower within-row spacings with fewer shoots. While higher plant densities with a greater number of shoots reduced photosynthetically active radiation, they increased the leaf area index at fruiting level. In order to obtain high yields an assumption of 80 x 15 cm with two shoots per plant is suggested for peppers. When expensive seed is used then a 80 x 30 cm spacing with three shoots per plant might be more economical. Plant density and the number of shoots did not affect fruit quality characteristics, such as fruit weight, length, diameter, volume, dry matter, total soluble solids and the pH of the flesh in either cultivar.

Key Words: *Capsicum annuum* L., plant spacing, pruning, yield, fruit quality

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