

Title Manure influence on the post-harvest durability of roses in the integrated production system

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Abstract

The efficiency during the productive process of cut flowers is essential to increase the durability after the harvest. The management of the fertilization may influence the vase life of the cut flowers. Based on that, this work aimed to evaluate the post-harvest durability of the roses cultivated in 4 percentages of chemical fertilization (25%, 50%, 75% and 100%) versus presence and absence of green manure (*Calopogonium mucunoides*) cultivated intercropping with the rose plant. The experiment was established in the Plant Science laboratory of the Nucleo Tecnológico Epamig Floricultura in São João del Rei, MG (Brazil). Rose stems of the 'Carolla' cultivar were harvested, conditioned in plastic containers with distilled water and kept in room temperature (22 to 25°C). The experimental design used was completely randomized with eight treatments, four replications and three floral stems per plot. The evaluations were carried out every two days. It was noticed that the stems cultivated intercropping with the green manure presented greater loss of fresh mass during the evaluation (6.47g) when compared to the plants cultivated without the green manure (4.21g). No significant difference was noticed between the stems for the variable vase life. The flower opening was influenced only by the time after the harvest. The evaluated stems presented excellent quality. The petals opening were observed by the increase of the diameter of the floral bud. On the first day of evaluation of the experiment, the buds presented average diameter of 29.82 cm and in the last evaluation 66.78 cm. The intercropping of the rose plant with the evaluated green manure damaged the post-harvest quality of the roses stem which were shown less turgid.