Title Sustainable management of the soil in the integrated production of roses

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Abstract

The Integrated Production System consists in the agricultural exploitation for the production by use of the natural resources and of regulating mechanisms to minimize the use of inputs and contaminants ensuring the sustainability. This work aimed to evaluate the production of roses of the 'Carolla' cultivar cultivated in different soil managements in the Integrated Production System. Rose cuttings were cultivated in soil in the greenhouse. The experimental design used was of randomized blocks, with split plot in the space, with eight treatments and four replications. The treatments were constituted of four percentages of chemical fertilization recommended to Minas Gerais, Brazil (25%, 50%, 75% and 100%) versus presence and absence of green manure (*Calopogonium mucunoides*) cultivated in intercropping with the rose plant. The treatments which did not receive 100% of chemical fertilization were incremented with 2 types of biofertilizers applied monthly: Bokashi (16 g/plant, at soil) and Supermagro (5% at leaves). The evaluations were carried out 3 times per week in the period of one year. It was noticed that in the presence of the green manure, the number of stems produced per plant (7.16), dry matter of the leaves (4.55g) and total dry matter (12.06g) were lower when compared with the same variables evaluated in the plants cultivated without the green manure (7.98; 5.01g and 12.90g, respectively). For the remaining evaluated parameters