Title Effect of manure on the incidence of diseases in rose plants cultivated in the integrated production system

Author M.N.O. Ribeiro, E.F.A. Almeida, P.M.R. Júnior, S.N. Reis, L.M. Carvalho Silva, G.F. Freitas and J.R.M. Figueiredo and S.S. Barbosa

Citation Book of Abstracts.International Conference on Quality Management in Supply Chains of Ornamentals. 21-24 February, 2012. Golden Tulip Sovereign Hotel, Bangkok, Thailand.

Keywords disease*;* production system; *Rosa* sp.

Abstract

The deficiency, excess or imbalance in the combination of the nutritional elements can influence the reaction of the plants to the infection from pathogens. The rose plant is susceptible to various pathogens. Therefore, in the production of roses, the application of chemical defensives is carried out in a preventive and intense way, which causes environmental contaminations. This work aims to evaluate the management of the chemical and organic manure based on the incidence and severity of downy mildew and powdery mildew in rose plants cultivated in integrated production system. The experiment was carried out in a greenhouse with cultivation of roses of the 'Carolla' cultivar. 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 recommend in Minas Gerais, Brazil (25%, 50%, 75% and 100%) versus presence and absence of green manure (*Calopogonium mucunoides*) planted 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% applied at leaves). The samples were taken weekly in the leaflets of the central leaves of the productive branch of the plant for evaluation of downy mildew and powdery mildew. In the integrated management of diseases, preventive applications with alternative products and biological defensives: oil of neem (*Azadirachta indica*), sodium bicarbonate, bordeaux mixture, *Equisetum* ssp infusion, crude milk, silicon and biofertilizers were used. The alternative defensives were efficient. However, despite the reduction of the frequency of applications, the spraying with chemical defensives was necessary. None of the treatments related to the chemical and organic manure influenced the incidence and severity of the downy mildew and the powdery mildew.