

عنوان مقاله:

The Effect of Ferulago ubvelutina and Echinophora platyloba's Essential Oil in Comparison with Silver Nanoparticles ((SNP) in Reduction of Bacterial Population in Preservative Solution of Cut gerbera (Gerbera jamesonii cv. Intense

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خلاصه مقاله:

One of the most important factors in reducing the longevity of cut gerbera, is bacteria Accumulation in flower pot solution and thus vascular blockage would be occurred by these bacteria. Gerbera stems are strongly sensitive to bacteria which blocked the stem. If gerbera stem become blocked with bacterial factors, it will bend in neck, the flower head will withered and incline downward. Treatment of cut flowers by adding antibacterial agents is a common method for increasing longevity by preventing the growth of microorganisms. In this study to reduce vascular obstruction of cut gerbera, two natural antibacterial agents Chavil (Ferulago subvelutina) and Khousharizeh (Echinophora platyloba) at ۱,۲,۴ ppm) and a chemical anti-bacterial agent silver Nanoparticles (SNP) at concentration ۱۰,۲۵,۵۰) concentration ppm) and also combination treatments of above mentioned essential oils each one separately at concentration ppm) with SNP were used. Diagnostic tests for bacterial and soft rod test was also performed. The purpose ۱۰,۲۵,۵۰) of this study was to determine the best treatment for reducing populations of bacteria in the flower pot solution of gerbera flowers that lead to increase water absorption and vase life of gerbera cut flowers. The results of this experiments showed that the significant impact on reducing the bacteria population was related to Chavil and Khousharizeh and after those, related to combination treatments in comparison with SNP. So that the maximum vase life and maximum relative fresh weight was observed in chavil and khousharizeh. Finally, three types of bacteria soft rod and vascular obstruction stems (Erwinia persicina, Pseudomonas marginalis and Entrobacter sp.) and also three genera (Cellulomonas, Pseudomonas and Achrombacter) were identified with various diagnostic tests of bacterial and soft rod test.

کلمات کلیدی:

Vascular Obstruction, Soft Rot, Silver Nanoparticles

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