Title Nano-silver pulse treatments inhibit stem-end bacteria on cut gerbera cv. Ruikou flowers

Author Jiping Liu, Shenggen He, Zhaoqi Zhang, Jinping Cao, Peitao Lv, Sudan He, Guiping Cheng and Daryl C. Joyce

Citation Postharvest Biology and Technology,Volume 54, Issue 1, October 2009, Pages 59-62

Keywords Anti-microbial; Cut flower; Gerbera; Microorganism

Abstract

Nanometer-sized silver (Ag^{+}) particles (NS) are used in various applications as an anti-microbial. Effects of NS (2–5 nm diam.) pulse solution treatments on vase life of cut gerbera (*Gerbera jamesonii*) cv. Ruikou flowers were investigated. Compared with the control [pulsed with deionised water (DI) and subsequently held in DI] pulsing for 24 h with 5 mg/L NS solution followed by holding in DI maintained water uptake and extended vase life. From *in vitro* and microscopy assessments, NS pulse treatment inhibited bacteria growth in the vase solution and at cut stem ends during the first 2 d of the vase period.