

COST OF SILVER NITRATE CONDITIONING SOLUTION

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Recent research reports suggest the possibility of "quick dipping" the cut ends of flower stems in silver nitrate solution to prevent bacteria from plugging the conducting tissues. Stem ends are treated in a 1,000 to 1,200 ppm solution of silver nitrate before shipment or storage. Dipping times from 5 seconds to 10 minutes have been suggested.

How do you prepare a 1,000 ppm silver nitrate solution? Four grams of silver nitrate in a gallon of distilled or deionized water yields a 1,057 ppm solution. One hundred gallons at the same concentration can be prepared by using 14 ounces of silver nitrate.

The cost of silver nitrate in 5-pound lots varies from \$41 to \$75 per pound according to recent price quotations from several suppliers. Prices are reported to have doubled in the past year. Future deliveries are expected to carry a higher price tag. At present prices, then, a 1,000 ppm solution costs \$.36 to \$.66

per gallon. Add \$.02 for deionized water for a total of \$.38 to \$.68 per gallon of prepared solution.

The exact amount of solution used by slightly wilted flowers in a dip time of several minutes is not known. However, let's make the generous estimate that an average of 2 milliliters per flower stem is used, including loss due to the film of solution that remains on the stem after dipping as well as actual uptake by the flower. The cost of dipping in a 1,000 ppm silver nitrate solution would be \$.02 to \$.035 per 100 flowers, depending on the price paid for the chemical. This assumes the solution can be completely used up without renewing any silver nitrate. Please note that no labor has been calculated for solution preparation or dipping.

In conclusion, dipping in a 1,000 ppm silver nitrate solution appears to be in the economic "ballpark" despite the frightening price for the actual material.

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WARNING ON THE USE OF CHEMICALS

Pesticides are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in their original labeled containers in a locked cabinet or shed, away from food or feeds, and out of the reach of children, unauthorized persons, pets, and livestock.

Recommendations are based on the best information currently available, and treatments based on them should not leave residues exceeding the tolerance established for any particular chemical. Confine chemicals to the area being treated. THE GROWER IS LEGALLY RESPONSIBLE for residues on his crops as well as for problems caused by drift from his property to other properties or crops.

Consult your County Agricultural Commissioner for correct methods of disposing of leftover spray material and empty containers. Never burn pesticide containers.

PHYTOTOXICITY: Certain chemicals may cause plant injury if used at the wrong stage of plant development or when temperatures are too high. Injury may also result from excessive amounts or the wrong formulation or from mixing incompatible materials. Inert ingredients, such as wetters, spreaders, emulsifiers, diluents, and solvents, can cause plant injury. Since formulations are often changed by manufacturers, it is possible that plant injury may occur, even though no injury was noted in previous seasons.

To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.