

AGMIN NEWSLETTER No. 209

Effect of Cupricide[®] on Plants

Residual copper in waters treated with Cupricide[®] – Algicide will generally be low, in the concentration range 0.1 – 0.5mg/L (0.1-0.5ppm) as copper. At this copper concentration, waters may be used for irrigation of crops without the risk of copper-phytotoxicity. Soil copper concentrations of 20mg/kg are readily tolerated by plants. Plant growth will be reduced when the soil copper concentration exceeds 100mg/kg.

In Hydroponics equipment for vegetable growing, typical nutrient solutions have copper concentrations in the range 0.05 – 0.3mg/L (0.05-0.3ppm). This concentration range is similar to the residual copper remaining in waters after treatment with Cupricide[®]. It has been observed that a significant proportion of copper is absorbed by the dead and decaying algal cells after treatment with Cupricide[®]. Some plant species are sensitive to excess copper micronutrients; examples are legumes, spinach, citrus and gladiolus. The normal copper concentration in plant tissues ranges from 5-20mg/kg, depending on the species. In critical applications, the farmer should obtain water and plant tissue analyses to confirm that toxic concentrations of copper are absent.

In preparing hydroponic nutrient solutions with water which has been treated with Cupricide[®], it is advisable to delete copper sulphate from the formulation if there is a risk of excess copper in solution.



AGMIN CHELATES PTY LTD

(A.C.N. 006 413 458) (A.B.N. 30 006 413 458)

32 Wattlepark Avenue, MOOLAP, VIC. 3224

Phone: (03) 5248 3828 Fax: (03) 5248 1603

Email: service@agmin.com.au Website: www.agmin.com.au

