COPPER DEFICIENCY IN WALNUTS

Bill Olson, K. Uriu, J. Pearson

ABSTRACT

Out of five spray treatments and one soil applied treatment only Kocide 101 applied at the rate of 10 lbs./100 gal. and applied 5 times in the spring of 1987 gave complete correction of copper deficiency. This correction carried over with nearly complete correction in 1988 as well. The other treatments provided only partial correction of copper deficiency.

OBJECTIVE

After diagnosing copper deficiency in young walnuts evaluate several methods of correcting the deficiency.

PROCEDURE

After applying various treatments in 1987 and 1988 rate the trees for correction of copper deficiency. The treatments applied were:

1. 1987 - Kocide 101 - 10 lbs./100 gal. - 5x - Spring
2. 1987 - CUSO₄ - 10 lbs./100 - 1x - Fall
3. 1987 - CUSO₄ - 20 lbs./100 - 1x - Fall
4. 1988 - Kocide 101 - 2 lbs./100 - 3x - Spring
5. 1988 - Kocide 101 - 10 lbs./100 - 1x - Spring
6. 1988 - CUSO₄ - 3 lbs./tree in soil - Spring

RESULTS

Kocide 101 applied at 10 lbs./100 five times in the spring of 1987 gave complete correction in 1987 and good, but not complete carryover correction in 1988. The 1987 copper sulfate sprays, 1988 Kocide 101 sprays and copper sulfate applied in the soil gave only partial correction in 1988.

Clearly, all of the treatments helped reduce copper deficiency but only the high rate of Kocide applied five times in the spring gave complete correction. The soil applied treatment may look more promising after one full season.