

## **Copper Defoliation trial Hawkes Bay May 2014**

### **AIM:**

To compare defoliation differences between Copper Oxychloride and Biomin Copper on Spring Brite Nectarines.

### **METHOD:**

A block of Spring Brite Nectarines in Hawkes Bay was utilised in this trial. Three rows were sprayed with Biomin copper, and then 3 rows were sprayed with Copper Oxychloride alternating throughout the block. Both products were applied on the 2<sup>nd</sup> May 2014 and assessment pictures were taken 7 days later on the 9<sup>th</sup> May 2014. There was an initial bronzing of the leaf and estimated 5% + natural drop prior to product applications.

### **APPLICATION RATE:**

Biomin Copper applied in 1 x application at a rate of 2kg / Ha

Copper Oxychloride applied in 1 x application at a rate of 6kg / Ha

### **PRICE:**

Biomin Copper Price \$516.73 for 10kg = \$103.34

Copper Oxychloride \$130.00 for 10kg = \$78.00

### **RESULT:**

Biomin Copper gave excellent defoliation 95% + after one application @2kg / Ha

Copper Oxychloride gave less than optimum results with estimated 20% defoliation above initial 5% natural

### **GROWER COMMENTS:**

"I am Dumbfounded – this just goes to show how systemic your products really are"

### **FURTHER COMMENTS**

Copper Oxychloride is a very expensive product since it did not defoliate the trees; however growers who initially compare product prices would choose Copper oxychloride over Biomin Copper. It is important to never choose product on the price of a container alone, application rate and the number of applications plus the effectiveness should always be considered. The use of Copper oxychloride based on price would be considered false economy since the aim of applying coppers at the end of the season to defoliate stone fruit trees is to alleviate spread of organisms causing Bacterial Blast infection through susceptible leaf scar wounds. Since Copper Oxychloride was not effective at giving appropriate defoliation levels further applications will be required. Copper oxychloride is a heavy metal that contaminates soil and kills beneficial organisms whilst Biomin Copper is a systemic copper that leaves no residue, enters the plant and is used nutritionally without increasing soil heavy metal levels. There is an added potential issue of residue contamination to meat of grazing sheep after a copper oxychloride application.





Grower comments : " I am Dumbfounded – this just goes to show how systemic your products really are"

**'Copper Defoliation Trial Hawkes Bay Spring Brite Nectarines'  
Biomim Copper 1 x application @ 2kg / Ha  
Applied 2nd May 2014 when leaves were bronzed and natural leaf drop was approximately 5%-10% - Picture Taken 9th May 2014 7 days after spray application  
More than 95% successful defoliation occurred after Biomim Copper application**





**'Copper Defoliation Trial' - Hawkes Bay - Spring Brite Nectarines  
Copper Oxychloride 1 x Application @ 6 kg / Ha  
Applied 2nd May 2014 when leaves were bronzed and natural leaf drop was approximately 5% + - Picture taken 9th May 2014 7 days after spray application  
Approximately only 20% - 25% leaf defoliation occurred after Copper Oxychloride application**





**LEFT** : Looking up into  
Copper Oxychloride  
defoliated trees 7 days  
after application of 6kg / Ha

**RIGHT** : Looking up into  
Biomin Copper defoliated  
trees 7 days after application  
of 2kg / Ha

