

Question Period I

Jeff Bohn: Are there any detrimental effects of copper on mycorrhizal fungi?

Tom Landis: There actually have been studies to show them to be beneficial by making a more fibrous root system which has more loci for the mycorrhizal fungi to invade. There was some research done several years ago with Ponderosa pine that actually improved mycorrhizal infection.

Jeff Bohn: That's with the ectomycorrhizal fungi. Has there been any work done with endomycorrhizal fungi?

Tom Landis: I'm not sure.

Jeff Bohn: That exists in the root tip itself whereas the ectomycorrhizal fungi can attach itself further up the root can't it?

Tom Landis: I would think the principle would be the same by promoting more fibrous root tips for the infection to occur. I would think you can get better invasion and better inoculation with chemically pruned roots.

Kathy Echols: Have there been any studies done on the benefits of mycorrhizal fungi on ornamental plants as opposed to forestry species?

Rich Regan: There really isn't anything in the literature as far as the copper treatment, but there is literature on the effects of mycorrhizal fungi on ornamental plants.

Larry Landauer: Have there been any studies on the possibility of developing resistance to multiple fungicides if they are all used at the same time?

Ralph Byther: Good question. Probably not any good studies using a mixture of three. It's well documented that you can have a fungus that has developed a resistance to two of them, but this has probably occurred through misuse where one material was used for a long period of time and the fungus developed resistance to it and then by using another material the fungus developed resistance to that, so you then had resistance to both of those compounds.

Larry Landauer: We try to fight resistance by alternating one after the other and if you use all three at once, what do you do if resistance develops? Do you have any alternative at that point?

Ralph Byther: That's correct. If one of those in the mixture are not-at-risk materials like Daconil we don't have resistance develop. In mixtures, it's best to combine not-at-risk materials with the at-risk materials. But, I don't know of studies to show what you are talking about.

Voice: What was the timing for the application of nitrogen?

Rita Hummel: The nitrogen was applied once every 2 weeks as a liquid for those different rates of nitrogen and there was phosphorus and potassium in the liquid fertilizer, but the rate of that was held constant across all nitrogen rates.