Traditional vs. Nontraditional Treatments on Treating Clavibacter Michiganensis Nebraskensis in Corn (Phase III)

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The purpose of this experiment was to see if traditional or nontraditional treatments for Clavebacter michiganensis nebraskensis (Goss's Bacterial Wilt and Leaf Blight)a re more affective in reversing the affects of the disease in field situation. I hypothesized that the nontraditional treatment of dish soap would reduce the yield loss in the susceptible hybids. My procedure was first to mark off the plot ground. Next I planted the plot. Then I measured and marked off the treatment sections placing labeled stakes at the boundary points. After choosing 5 plants randomly out of each of the treatment sections, I created the injuring and inoculating device. At V6 the selected plants were injured and inoculated. Then a week after inoculation the treatments were applied. The treatments included Procidic, Kocide, Wetcit, Hydrogen Peroxide, Mouthwash, and Dishsoap. Also there was a treatment sections, in each rep, that had no treatment applied and another that was not exposed to the disease only injured. Finally, in October I harvested the inoculated the plants and measured their ear weight and kernel count. Data indicates that the most tolerant hybrids were negatively impacted by the treatments however; the least tolerant hybrids reacted more favorably to treatments. Overall all hybrids tested the nontraditional treatment of Wetcit had the highest average ear weight rank of the treatments, ranking 1.75 from a scale of 1-8. Hydrogen peroxide was the lowest ranking ear weight in the trial averaging a seven with data from all hybrids. The remaining treatments were ranked in the following order from lowers to highest: Procidic, injured and inoculated, injured noninoculated, mouthwash, dish soap, and Kocide. My data did not agree with my hypothesis.

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