



The Growers Corner



Grower/Researcher: Dr. Jeff Jones, Plant Pathologist
Company: University of Florida
Specialty: Bacteriophage research

Since the mid 1990s, I have had excellent collaboration with Dr. Lee Jackson on developing strategies for using bacteriophages to control bacterial spot of tomato pathogen (*Xanthomonas campestris* pv. *vesicatoria*). In collaboration with Dr. Jackson, my lab did numerous greenhouse and field tests to determine the potential for controlling bacterial spot. We conclusively demonstrated in greenhouse and field tests that applications of bacteriophages outperformed the standard bactericides (i.e., various copper formulations) in controlling bacterial spot of tomato and furthermore resulted in significantly greater fruit yields than the untreated control and the copper-treated plants. We have published and are currently in the process of publishing several articles in refereed journals demonstrating the increased efficacy of bacteriophages. Based on numerous experiments at multiple locations, I am convinced that bacteriophages outperform the standard bactericides. Furthermore, it is nearly impossible to demonstrate an increased tomato fruit yield compared to untreated controls in plots receiving copper bactericides, whereas we have conclusively demonstrated this with bacteriophages in most of our field experiments. In those where yield was not statistically higher, it was always numerically higher.

Aside from the efficacy data, bacteriophages offer other advantages. They are host specific meaning that they have very narrow range of activity attacking a very specific bacterial organism. Most bactericides including antibiotics and copper compounds have broad-spectrum activity and thus are detrimental towards the beneficial microorganisms. Secondly, bacteriophages are biodegradable and thus can be considered as environmentally friendly.

I hope you will view favorably the application by AgriPhi (OmniLytics) for registration of the bacteriophages for control of bacterial diseases since I am convinced that this has been proven to be efficacious for two bacterial diseases and has significant possibilities for controlling many other bacterial plant pathogens. AgriPhi is the leader in this area and agriculture will benefit significantly from this technology. If I can provide any further information, please feel free to contact me.

Sincerely,
Jeffrey B. Jones