

2018 Research Report

Fungicides for management of early blight, Septoria leaf spot, and anthracnose in processing tomatoes

Prepared for the Ontario Tomato Research Committee (OTRI)

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Highlights/Summary:

- Trials were inoculated in late June and sprinkler irrigation was applied, but the hot and dry condition in July slowed disease development. Disease symptoms on foliage were present but defoliation did not become obvious until about a month before harvest. In early August, lesions were observed in the upper canopy of both trials. We were unable to identify the cause of this problem, but it interfered with foliar assessments. Our lab and the Plant Diagnostic Clinic identified no causal organism, and there was no pattern associated with treatments except the symptoms were worse in the fungicide programs trial.
- *Fungicide efficacy:* Both early blight and Septoria leaf spot were present. Total foliar disease was lower in treatments Quadris, Tanos, Fontelis, Aprovia TOP, A20259, and Phostrol + Bravo ZN compared to the nontreated control. Defoliation three days before harvest was also lower these treatments as well as Bravo ZN and Sercadis. Treatments with copper (Cueva, nanogel, nano-zinc) were ineffective. When mixed with Bravo ZN, Phostrol provided marginally better control than Bravo ZN alone. Interestingly, Manzate Pro-Stick did not reduce defoliation compare to the nontreated control. These results will be used to update fungicide efficacy tables presented on ONvegetables.com and elsewhere. Anthracnose incidence was very low and there were no differences among treatments.
- *Fungicide programs:* There were no differences among treatments for defoliation, anthracnose, or yield, and this was probably a result of the issue described above with unknown cause in addition to poor conditions for disease development throughout July. Thus, we were unable to evaluate the efficacy of the different fungicide programs tested.

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