



Evaluation of Triazole and Strobilurin Fungicides, Alone and in Combination, for Control of *Exserohilum turcicum* on Sweet Corn

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Northern corn leaf blight, incited by *Exserohilum turcicum*, is one of the most important foliar diseases of sweet corn (*Zea mays*). Causing large elliptical lesions that may coalesce and result in significant levels of leaf necrosis, fungicides are frequently relied upon for control. Two field experiments were conducted in south Florida during Spring 2008 to evaluate the efficacy of several triazole and strobilurin fungicides, alone and in pre-mixtures, for control of this fungal pathogen. The experimental design consisted of four replications of 10 fungicide treatments arranged in randomized complete blocks. Experimental units were composed of two rows, 9 m long, separated by three non-sprayed guard rows. Fungicides were applied using a CO₂ backpack sprayer equipped with a three-nozzle handheld boom. Fungicides investigated included the strobilurin compounds azoxystrobin, pyraclostrobin, and trifloxystrobin, as well as the triazole compounds metconazole, propiconazole, prothioconazole, and tebuconazole, either alone or in combination. The broad-spectrum protectant maneb was also included. Northern corn leaf blight was severe in both experiments, along with southern corn leaf blight in one of the trials. Both trials were considered definitive. All fungicide treatments provided for significant levels of disease control, with triazole and strobilurin fungicides proving significantly better than maneb (Fig. 1). In both trials, fungicides containing a triazole, either alone or in combination, were more efficacious than fungicides containing only a strobilurin compound. These results emphasize the benefits of including triazole chemistries in a foliar disease management program on sweet corn, particularly if northern corn leaf blight is the featured disease. Triazole/strobilurin pre-

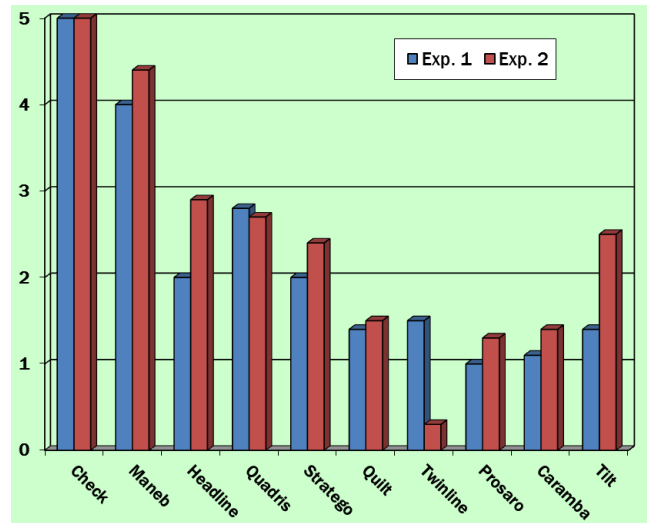


Fig. 1. Influence of fungicide treatments on northern corn leaf blight of sweet corn. Blight was rated on a 0–5 scale with 5 representing the level of blight relative to the untreated check (5).

mixtures, or rotations of triazoles with strobilurin fungicides, would likely be the best candidates for controlling the prevalent sweet corn disease complex that includes the foliar blights and rust, since the strobilurins are excellent rust control fungicides.

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