**Poster Session: Disease Control and Pest Management - Chemical Control**

**206-P**

**Use of loop-mediated isothermal amplification assays to detect azole-insensitive *CYP51*-overexpressing strains of *Zymoseptoria tritici*.**
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Septoria leaf blotch is currently controlled by programmed applications of multisite inhibitors (e.g. chlorothalonil), azoles (e.g. epoxiconazole and prothioconazole) and a new generation of Succinate Dehydrogenase Inhibitors (e.g. bixafen, isopyrazam and fluxapyroxad). Azole fungicides have been used for three decades but their efficacy has eroded over time due to the evolution of azole insensitive strains carrying alterations in the sterol 14α-demethylase (CYP51) target protein. Because of the importance of azoles as a mixing partner of SDHIs continued monitoring of azole sensitivity shifts is paramount. Recently, we have reported a new mechanism, a 120 bp insertion in the *CYP51* promoter which is linked with 10- to 40-fold *CYP51* overexpression. Other isolates carry promoter variants based on a larger insert of 868 bp but the impact of this insert on the regulation of *CYP51*expression remains unclear. Here we present the development and application of loop-mediated isothermal amplification (LAMP) assays for rapid, on the spot detection of *CYP51* promoter inserts in *Zymoseptoria tritici*(*Mycosphaerella graminicola*) isolates carrying CYP51 variants [L50S, S188N, I381V, ΔY459/G460 & N513K] and [L50S, S188N, A379G, I381V, ΔY459/G460 & N513K].

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