**Oral Technical Session: Disease Control and Pest Management**

**112-O**

**Evolution and spread of azole-insensitive *Zymoseptoria tritici*field isolates in the UK.**
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Azole fungicides have been used for more than three decades in the UK to control Septoria leaf blotch caused by the fungus *Zymoseptoria tritici*. Research has shown that the efficacy of some azoles (e.g. tebuconazole and triadimenol) can be compromised by the evolution and spread of insensitive strains carrying combinations of amino acid alterations (amino acid substitutions and a deletion) in the target protein sterol 14α-demethylase (CYP51). A stepwise accumulation of mutations has been observed since the early 1990s. Since 2012, CYP51 variants harbouring up to nine amino acid alterations can be found in the least sensitive strains. In addition, a 120 bp insertion in the *CYP51* promoter linked with *CYP51*overexpression has been found since 2009 in some strains representing two different CYP51 variants. *In vitro* fungicide sensitivity testing of different CYP51 variants (> 60) shows significant shifts in azole efficacy for all compounds tested (i.e. epoxiconazole, prothioconazole, prochloraz and tebuconazole). Here we present the genotype-to-phenotype relationships for these strains and discuss the practical implication