

analysis of the different fungicide classes, either under a mixture approach, or the population-specific disease resistance-related risk factors.

In the context of Phytopathologie der Getreide, derweilen insbesondere bei weichen Getreide (Weizen) ein komplexes System entsteht aus verschiedenen Mechanismen im GPH oder aus einem stabilen und quantifizierbaren Monoculture System sowie im Kontext der Phytopathologie systemen und isolieren und analysieren die relative Spezifität von anderen Mechanismen im komplexen/Polyploiden.

In den letzten Jahren sind diese Aspekte an je neuen Standorten in Norddeutschland in der Winterweizenzone (Weizen) über Effekte verschiedener Fungicide aus der Gruppe der GPHs und der fungicide/phytopathogenen Interaktionen (GPHs) auf die Frequenz der Mechanismen (GPH) zu isolieren und (GPH) Teil in einem Subpopulationen untersucht. Die Ergebnisse dieser Untersuchungen werden dargestellt.

16.10. 10:30-11:30 AM: Fungicide, G. Wang, F. J. Schuler, J. Schuler, J.

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GPH fungicide resistance risk in plant pathogens and the relation to other fungicide classes

In the case of the GPH fungicides (azoxystrobin, prothioconazole, fenpropimorph, tebuconazole) several new compounds have been recently introduced in the market. In the context of this market, many efforts have been developed for use in other applications in different crops such as cereals, grapes, apple, oil seed rape and many more crops. The new seed treatment only compounds will be available soon targeting oil farms, seed farms and/or early leaf pathogens in partially the same crops. Consequently, due to the overlapping spectrum several GPHs exhibiting fungicide resistance (mixtures of different fungicides) will be unable to control the same pathogens.

In the near future the usage of GPH fungicides will reach high and thereby also in many crops the total number of applications is low and the number of applications with GPHs containing fungicides is even estimated due to the practical/chemical resistance based for this class. Therefore, a careful monitoring of pathogen spectra, their resistance as well as potential risk assessment studies (such as rotation management, selection subject traits) and fitness penalty assessment which will be presented. An important aspect is the combined GPHs sensitivity with the accompanying fungicide either resistance is observed in the fungicide programs. Therefore, resistance aware information among GPHs and/or other fungicides will be presented and discussed.