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Leaf blotch on durum wheat in France: characterization of the species complex responsible of the disease with a focus on *Parastagonospora nodorum*

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► To cite this version:

Romain Valade, Thomas Caparroy, Cindy Vitry, Oriane Beaudouin, Johann J. Confais, et al.. Leaf blotch on durum wheat in France: characterization of the species complex responsible of the disease with a focus on *Parastagonospora nodorum*. 9. International symposium on Septoria diseases of cereals, Apr 2016, Paris, France. p.31. hal-02799258

HAL Id: hal-02799258

<https://hal.inrae.fr/hal-02799258>

Submitted on 5 Jun 2020

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SPEAKER ABSTRACTS

Session 2: Epidemiology, cultural management and fungicide resistance

Friday 8 April
08:40 - 09:00

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Leaf blotch on durum wheat in France: characterization of the species complex responsible of the disease with a focus on *Parastagonospora nodorum*

Leaf blotch, caused by *Zymoseptoria tritici* and *Parastagonospora nodorum* is a major disease complex of wheat worldwide. In France, these diseases have been reported to cause yield losses up to 50% in bread wheat fields. Yield losses are mainly caused by *Z. tritici* on bread wheat. However, little information is available in France for epidemics on durum wheat that are increasing in prevalence in recent years. We recently conducted a 3 years survey of leaf blotch on durum wheat and neighbouring bread wheat fields in France. Since *Z. tritici* and *P. nodorum* cause similar symptoms on wheat, we tested the presence of these two fungal species in infected leaves using microbiological isolation methods and qPCR detection. *Z. tritici* was detected in all French regions on both durum wheat and bread wheat. On durum wheat, *P. nodorum* was detected in most French regions. On bread wheat *P. nodorum* was only quantified at low levels by qPCR. On both durum wheat and bread wheat, *P. nodorum* frequently co-occurred with *Z. tritici* at the leaf and field levels. French durum wheat cultivars were highly susceptible to the French *P. nodorum* isolates tested. Bread wheat, triticale and barley susceptibilities were cultivar and isolate dependant. These results show that control of leaf blotch on durum wheat, in France, needs to take into account the presence of *P. nodorum*. More detailed studies, about its response to current fungicides and about the necrotrophic effectors present in French populations will help manage leaf blotch on durum wheat.