


Vollanzeige:
EFS14 - 14th European Fusarium Seminar - 2018

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Zusammenfassung:	The "14th European Fusarium Seminar" will take place from April 8-11, 2018 in Tulln, Austria. It will be jointly organized by the University of Natural Resources and Life Sciences, Vienna (BOKU) and the Austrian Association of Molecular Life Sciences and Biotechnology, in cooperation with the International Society of Mycotoxicology. The EFS14 will be an excellent opportunity to present and discuss the progress made in all fields related to Fusarium research, ranging from medical research to plant pathology and from mycotoxin research to mitigation strategies. Topics like molecular taxonomy and detection of plant and animal pathogens, climate change or crop related changes in the Fusarium species and chemotype spectrum will be covered. "Host resistance genomics, genetics and plant breeding" will deal with studies about host resistance mechanisms (QTL and association mapping, transcriptomics, etc.), while work with a focus on the chemistry of host-pathogen interaction will be covered in the session "Fusarium secondary metabolites and metabolomics of Fusarium-host plant interactions". The session "Fusarium mycotoxins: toxicology, metabolism and remediation" will present new insights into classical Fusarium mycotoxins and toxin metabolism, but also emerging compounds and interactions of Fusarium metabolites will be included. A strong focus will be on strategies to detoxify and utilize contaminated grain. Last but not least "Integrated Fusarium management" will address topics ranging from forecasting, epidemiology, agronomic practice to avoid Fusarium infection pre-and postharvest, to problems like emerging fungicide resistance. [Information of the supplier, modified]
Thema:	Fungi (Pilze), Eumycophyta (Echte Pilze) (579.5) » finde ähnliche Quellen!
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Diversity and incidence of *Fusarium* species on maize under different pesticide treatments

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Fusarium ear rot (*Fusarium* spp.) and the European corn borer (*Ostrinia nubilalis*) are two major yield reducing factors in maize production. It has been well documented that *O. nubilalis* can enhance *Fusarium* ear secondary infections (Blandino et al., 2015). The aim of this study was to monitor the influence of different pesticide treatments (a.i. Chlorantraniliprole, Indoxacarb, and Chlorantraniliprole + Lambda-Cyhalothrin) on *O. nubilalis* and *Fusarium* disease severity in the field in a four year trial (2013-2016). The diversity of *Fusarium* species and their incidences on infected kernels were also estimated. Fusariosis in the field was assessed on a total of 160 plants per treatment, according to Reid et al. (1996) scale, while disease severity was expressed as McKinney's Index. For further analyses, 40 ears with fusarium ear rot symptoms were randomly chosen per treatment. The diversity of *Fusarium* species was analysed on 400 kernels per treatment, according to standard laboratory procedure, and morphologically identified according to Leslie & Summerell (2006).

In total 11 *Fusarium* species were identified on maize kernels in a four year period: *F. equiseti*, *F. graminearum*, *F. oxysporum*, *F. proliferatum*, *F. pseudograminearum*, *F. semitectum*, *F. solani*, *F. sporotrichioides*, *F. subglutinans*, *F. verticillioides*, and *Fusarium* sp. As expected, the dominant species were: *F. proliferatum*, *F. verticillioides* and *F. graminearum*.

Low abundance of *O. nubilalis* and fewer injuries on kernels were registered in 2014 and 2015, which led to low differences in disease severity between treatments (15.88-17.24 and 10.72-13.04, respectively), and no significant effects of insecticides comparing to the control treatment. However, the years 2013 and 2016 were more favorable for the pests development and disease severity varied from 7.74-14.09 in 2013, and 8.18-11.55 in 2016. Significant differences in the efficacy of the insecticides compared to the control were registered in all treatments, but the most efficient a.i. was Chlorantraniliprole.

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References:

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