



Poster Session: Biology and Disease Management - Chemical Control

239-P

Chemical control as strategy for reducing the impact of leaf anthracnose and host resistance management in sorghum.

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Anthracnose, caused by *Colletotrichum sublineolum*, can cause losses up to 50% of the sorghum production in Brazil. The most efficient method for disease control is host resistance, however, the use of fungicides can reduce more than 70% the losses. Therefore, our aim was to evaluate the interaction between chemical control and genotype resistance methods to leaf anthracnose control. The experiments were carried out in the EMBRAPA experimental area, Sete Lagoas-MG, Brazil, during the 2008 to 2011 years. In all experiments, the disease was assessed weekly by using a severity scale range from 1 (0%) to 9 (>75%). To estimate the time and dose of fungicides and sorghum resistance were used as follows genotypes: BRS304, BRS310, BRS308, MR43, DKB599, and AG1060. It was used four commercial mixtures of triazoles and strobilurins fungicides with doses range from 0 to 0.8 L/ ha. We evaluated the time of fungicide application as follows: i- 45 days after emergence (DAE); ii- 45 and 60 DAE; iii- 45, 60 and 75 DAE. The application of Epoxiconazole + Pyraclostrobin (E+P) was the most effective to reduce the disease severity. The application of "E + P" led to an increase of grain production in 58, 87 and 100% with one, two or three times of fungicide applications, respectively. The higher resistance levels were observed with BRS308 and AG1060 (severity was lower than 14%). The use of genotype rotation integrated with chemical control can be useful to host resistance management.

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