

APS Homepage
Back



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Quantifying grain losses caused by leaf anthracnose in different sorghum genotypes.

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This study aimed to quantify the effect of sorghum anthracnose (*Colletotrichum sublineolum*) on grain yield of sorghum plants. The field experiments were carried out with sorghum lines (BR009 and BR008) and hybrids (BR304, BR308, BR310, AG1060, DKB599, and MR43). The experiment was carried out in the EMBRAPA experimental area located in Sete Lagoas-MG, Brazil, during the years 2009 to 2011. In all experiments, the disease was assessed weekly from flowering to harvest by using a severity scale range from 1 (0%) to 9 (>75%). The regression analysis was used to estimate the damage caused by anthracnose on sorghum yield. The best variable to infer about the disease damage on the yield was the severity on 100 days after plating. The anthracnose severity affected the sorghum yield and the disease intensity ranged depending of the sorghum genotype. The yield on AG1060 and BRS308 hybrids were not affected by leaf anthracnose. Other hand the BR009 showed to be highly susceptible to the damage caused by disease. The biggest production reduction was observed on the BR009 line (losses up to 86% of yield). In the BR008 and BR310 genotypes were observed production losses values up to 72% and 35%, respectively. Therefore, we can conclude that losses caused by *C. sublineolum* on sorghum production is dependent of the sorghum genotype and that our results will be useful to the *Integrated disease Management* program.

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