

Annual Congress on Plant Science and Bio Security

July 12-14,
Valencia, Spain | 2018



Harvest delay leads to the increase total fumonisin levels and kernel rot of corn

Rodrigo V. da Costa¹, Valéria A. V. Queiroz¹, Luciano V. Cota¹, Dagma D. da Silva¹, Fabrício E. Lanza², Rodrigo E. M. de Almeida³, Alan A. Pereira³ and Leonardo J. M. Campos⁴

¹Embrapa Milho e Sorgo, Cx. Postal 285, 35701-970, Brazil

²Universidade Federal de Viçosa, 36570-000, Brazil

³Embrapa Pesca e Aquicultura, Cx. Postal 90, 77008-900, Brazil

⁴Embrapa Soja, Cx. Postal 231, 86001-970, Londrina, PR, Brazil

Artificial drying of grains is an essential procedure to ensure safe storage and corn quality after harvest. However, this process requires a high energy consumption and results in considerable additional cost to producers. In attempt to reduce costs, farmers have been adopting the strategy of natural drying of grains in the field. The present work had as objective to evaluate the effect of the harvest delay in the contamination of corn grains with fumonisins and the incidence of kernel rot. Three hybrids (BRS1035, Attack and DKB390 YG) were used. Field experiments were conducted considering delay in harvest at 0, 15, 30, 45, 60 and 75 days after the ideal harvest date (18% grain moisture). According to the results, the harvest delay resulted in a gradual increase in the incidence of kernel rot and total fumonisins in the grains. The main fungi detected in the grain samples were *Fusarium verticillioides* and *Stenocarpella maydis*. The hybrid DKB390 YG showed higher resistance to *F. verticillioides* contamination and fumonisin accumulation in the grains. The hybrid Attack showed to be more resistant to kernel rot incidence.

Biography:

Rodrigo V. da Costa has completed his PhD at the age of 27 years from Federal University of Viçosa. Researcher of Embrapa Maize and Sorghum in the field of phytopathology. He has published more than 30 papers in reputed journals and has been serving as an editorial board member of repute.