

Mycokey

Integrated and innovative key actions for mycotoxin management in the food and feed chain

Lay summaries

Knowledge transfer to stakeholders



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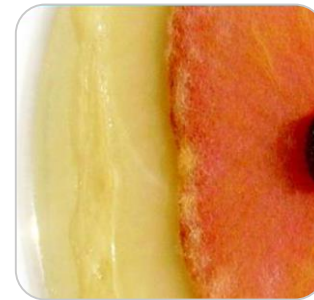
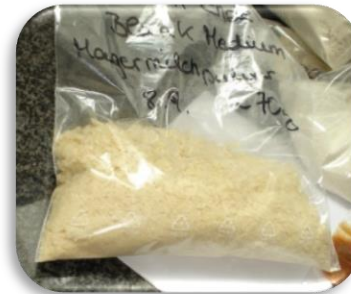
BIOCONTROL of *Fusarium graminearum sensu stricto*, as a tool to reduce deoxynivalenol accumulation in wheat

ISSUE

Fusarium head blight (FHB) is a devastating disease that causes extensive yield and quality losses to wheat and other small cereal grains worldwide. Species within the *Fusarium graminearum* complex are the main pathogens associated with the disease. Biocontrol can be used as part of an integrated pest management (IPM) strategy to reduce *Fusarium* growth and deoxynivalenol accumulation.

APPROACH

A strategy to reduce the impact of mycotoxins in the food and feed chains is to use biofungicides that can complement other strategies to reduce fungal growth and toxin accumulation



OUTCOMES

Two formulated biocontrol agents were able to reduce incidence, severity and DON accumulation on durum wheat under field conditions. Under greenhouse conditions biocontrol agents modulate resistance to *F. graminearum* through phytohormone production.

Bacillus velezensis RC 218 and *Streptomyces albidoflavus* RC 87B effectively reduced FHB incidence (up to 30%), severity (up to 25%) and DON accumulation (up to 51%) on durum wheat under field conditions.

