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BOOK OF ABSTRACTS

ISPP INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY

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(FHB), a disease that affects the spikes. DON and ZEA levels may increase in storage and are influenced by complex interactions among host-, pathogen-, and environment-related factors. Efforts to predict grain contamination with, and minimize postharvest losses due to, ZEA and DON must begin in the field, and require a thorough understanding of factors affecting contamination. Results from control-environment and field experiments will be presented and discussed on FHB-DON and FHB-ZEA relationships, the influence of temperature, relative humidity, and rainfall on these relationships, and factors associated with the conversion DON to DON-3-glucoside, a masked form of the toxin that often goes undetected while maintain its toxic effects. In-field, harvest, and postharvest strategies for mitigating DON and ZEA contamination of grain will also be discussed.

C4.6-4

INOCULUM DYNAMICS AND ENVIRONMENTAL FACTORS ASSOCIATED WITH THE PREHARVEST CONTAMINATION OF CITRUS FRUITS BY GEOTRICHUM CITRI-AURANTII

SBRES Mauricio. (1), **PEREZ Elena. (1)**, ALVES Pablo. (1), PALOU Lluís. (2), VICENT Antonio. (3)

(1) Instituto Nacional de Investigación Agropecuaria, Montevideo, URUGUAY; (2) Laboratori de Patologia, Centre de Tecnologia Postcollita (CTP), Institut Valencià d´Investigacions Agràries (IVIA), 46113 Montcada, València, SPAIN; (3) Unitat de Micologia, Centre de Protecció Vegetal i Biotecnologia (CPVB), Institut Valencià d´Investigacions Agràries (IVIA), 46113 Montcada, València, SPAIN

Text

The aim of this study was to establish the methodology and determine the relationships between climatic factors and contamination of citrus fruit by the soil-inhabitant pathogenic fungus Geotrichum citri-aurantii. This pathogen causes sour rot decay of citrus. The field trial was set up in a ‘Murcott’ mandarin experimental orchard in Salto, Uruguay. Fruit sampling was conducted weekly from March to June 2022. Six fruits from 2-3 trees per experimental unit were arbitrarily selected within 50 cm from the orchard floor. Rainfall, air temperature, wetness and relative humidity sensors were placed in the center of the orchard. Wind sensors were placed at each sampling location. The mean number of epiphytic spores of G. citri-aurantii per fruit (abundance) and the proportion of fruits positive for G. citri-aurantii (incidence) were determined in the laboratory by washing and plating serial dilutions. Climatic factors were related to G. citri-aurantii abundance or incidence through generalized linear models specifying the normal or binomial error structure, respectively. For both incidence and abundance, a significant negative relationship was observed with rainfall and wind speed. In contrast, the relationship was significantly positive for wind gusts. The variables wetness and maximum temperature were negatively and significantly related only to abundance. Further field trials are necessary to validate the models and confirm the results obtained in this first year of the study.

C4.6-5

ASSOCIATED TRADE BARRIERS WHILE MANAGING POSTHARVEST DISEASES IN SWEETPOTATO