P-PO-22
Post-harvest disease: effects of the physiological age of bananas on their susceptibility to wound anthracnose caused by *Colletotrichum musae*

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Wound anthracnose caused by *Colletotrichum e*, and early ripening are the main problems affecting the quality of export bananas from a lot of countries in the world. In the case of Guadeloupe in French West Indies, these problems generally concern bananas grown in lowland plantations during the rainy season. Three experiments were carried out to study the influence of the physiological age of bananas (calculated on the basis of mean daily temperature sums) on their susceptibility to anthracnose. Stressful growing conditions, especially soil flooding, slowed fruit growth but had no direct effect on fruit susceptibility to *C. e* or on the green life. However, fruit that had accumulated lower temperature sums were less susceptible to wound anthracnose. By varying the source-sink ratio, we show that bananas of the same grade but different physiological ages had markedly different susceptibility to *C. e*. Bananas with the same temperature sum accumulation but grown in different soil-climate conditions had different levels of susceptibility. Fruit grown in cooler, highland areas were less susceptible to *C. e* than fruit of the same physiological age from lowland plantations. Our results suggest that temperature sum accumulation rate is a critical factor affecting the susceptibility of bananas to the pathogen.

P-PO-23
Production of ethylene absorber for extending the post-harvest life of Gros Michel banana

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This work was aimed at investigating the process of production of ethylene absorber using marl and potassium permanganate ($KMnO_4$). The 2:1 (w/w) ratio of marl:water was an appropriate ratio for ethylene absorber production since it resulted in the highest viscosity. Marl solution was then mixed with 1%, 3%, 5% and 7% (w/w) of $KMnO_4$ solution. The mixtures were subsequently dried at 150, 175, and 200°C using a vacuum dryer or a hot air oven. The drying time of the mixtures decreased as the drying temperature increased. The drying time of samples in the hot air oven was shorter than the drying time in the vacuum dryer. The ethylene absorber with 3% $KMnO_4$ solution had an absorption rate close to that of the two commercial ethylene absorbers. Ethylene absorber samples dried using the vacuum dryer had faster absorption rates than those dried using the hot air oven. The ethylene absorber was packed in three types of packaging materials i.e. proof, thin mulberry and glassine papers. The ethylene absorber packed in proof paper allowed the highest absorption rate compared to the thin mulberry and glassine papers. The ethylene absorber was then placed in perforated oriented polypropylene (OPP) pouch. The absorption rates of produced ethylene absorber