

**USE OF CDNA-AFLP TO STUDY THE DEFENCE-RELATED
GENE EXPRESSION IN BANANAS (*MUSA SPP.*),
INOCULATED WITH *COLLETOTRICHUM MUSAE*
RESPONSIBLE OF CROWN ROT**

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Crown rot disease of bananas is widespread in producing countries and is considered as the most important post-harvest disease of exported bananas. Variations of susceptibility to the disease have been noted between bananas but the origins still unknown. The biological responses of the fruit, including physiological change and disease susceptibility are controlled and regulated by gene expression. One way to understanding the reactions involved in variation of banana susceptibility to the disease in relation to their physiological state, is to study the expression of genes involved in these processes. To this purpose, crown sample previously inoculated with *C. musae* and showing 2 levels of susceptibility (very high and very low) were collected to be compared. Crown sample of each susceptibility level was collected at two different maturity stages: at harvest and 13 days after harvest (3 days after ripening). Collected crowns were immediately freeze-dried, an original method to conserve gene expression. cDNA-AFLP was applied on these 4 cell populations in order to highlight the differential transcription of genes whose function is "a priori" unknown. The cDNA-AFLP result was confirmed using quantitative real-time reverse transcription PCR. Various defence-related genes were identified and will be presented.