

## *Summary of preventive strategies and / or control for reduce the Corona pudrion fungi complex in organic export banana in destination*

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### *Abstract*

The present investigation has been developed in the cold season during the months of April to June of 2019 in the area of La Matanza, province of Morropón, department of Piura with samples of organic banana fruits obtained from small producers of the "Cooperativa de Solidarity Organic Producers Manuel Bruno Suárez" who report the biggest problems of quality claims at destination and its main objective is to reduce quality losses; It is for this reason that we have proposed as a strategy a key investigation prioritizing fundamental stages or phases:

**a). Laboratory.** - The phase begins with the capture of the pathogen, gender identification and species, isolation, fungal multiplication, inoculations among others). The phase consists of achieve the symptoms of the pathogen and / or pathogen complex under simulated conditions of sending (cold storage at a temperature of 13.5 ° C and 15.5 packaging type cluster bag of producers that have a high incidence of the disease at destination according to history.

**b). Nutrition.** - The investigation of the nutritional status of the plants to be attributed is established that the low resistance and susceptibility of plants is caused by a nutritional imbalance that would favour the high incidence of the disease (determination of nutritional status, analysis of soils and foliar analysis in plants), the need for the use of amendments and soil conditioners that allow improving soil conditions, for the best Nutrient absorption in banana plantations.

**c). Process.** - Application of corrective measures to maintain and use "clean water" in the process, placing protection coverage in the tubs, replicating the running water system and chlorinated, with latex trap, cluster pre-wash and cluster post-wash, cluster removal with wounds, waste disposal process fruit and development of a prototype tub pilot of fruit washing with "sprinkler systems" that ensures and allows to reduce and / or control the incidence of BR and / or other pathogens in this trial.

**d). Product testing.** - Products authorized by organic standards will be used in the form individual or mixed (combining products) in order to determine a "product complete" that generates a "physiological resistance" effect to the fruit, strengthen the thickening of the cell wall and quickly control the entry or penetration of fungi Phytopathogens identified in fruit samples, water samples (UFC 9), roofs, beams that originate the problems of "crown rot" highlighting BR; reduce the process of breathing-perspiration and therefore the production of ethylene that generates early maturation, provide

good firmness (good colour and consistency of fruit) good taste, aroma and longer life in shelf and consumer table.

Finally, the innovation and development process applied in this area guarantees and ensures a harmless fruit that positively influences the health of consumers who demand this fruit.

- Principal Investigator
- Research Assistant
- Cluster bag Banana cluster packing fingers individually
- It is one that does not endanger food safety in the circumstances in which it is used
- System that facilitates the washing and disinfection of fruit by reducing
- Phytopathogenic fungi that produce rot in banana fruits
- Product that I act by inducing a protective barrier, has activity against fungi, induces defences in the fruit and ensures fruit quality from the physiological and commercial point of view
- Effect that occurs internally in the fruit preventing the penetration of pathogens and extending the life of the fruit
- CFU Colony forming units / ml
- Crown rot produced by a pathogen complex that produces quality losses at destination
- BR refers to the Black rot or black rot that causes serious problems in banana, pineapple, palm among others

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