

CONTROL:

A. Periodic stem sanitation and deleafing

- B1. Bag the shoot at bending stage with .75 x 1.5 m muslin cloth or any suitable bagging material.



shoot at bending stage

.75 x 1.5 m muslin cloth



- B2. Remove the bag then detach the male bud or 'puso' when the 'false hand' or undeveloped hand appears, that is, in 14 days time.



- B3. The detached male bud may be sold or used as vegetable.

Based on the results of the IDRC-PCARRD funded Banana Project "Studies on the 'Bugtok' Disease of Cooking Bananas (Phase I)" and "Further Studies on 'Bugtok' Disease of Cooking Bananas (Phase II).

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BUGTOK OR TIBAGNOL DISEASE OF COOKING BANANAS



"Bugtok" or **"Tibagnol"** is a bacterial disease severely infecting **Cardaba**, **Saba**, **Abuhon** and moderately **Latundan** fruits of both new and old plantings. The symptoms are distinctly visible as pronounced red blood or black discolorations starting from the core progressing towards the whole pulp of the fruits.



Healthy male bud or "puso"

SYMPTOMS:

1. Bracts or covering of the male bud or "puso" are dry, slightly rolled up and loosely attached.



Diseased

2. Discoloration of the fruit pulp



- a. Reddening of the core and eventual hardening of the caramel-textured pulp



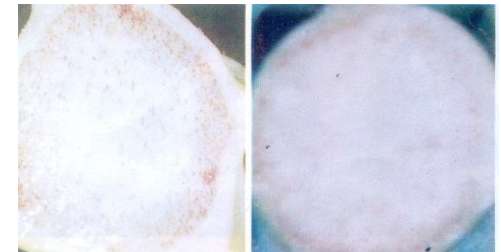
- b. Dry rotting and total blackening of the fruit pulp

3. Rusty brown to almost black discolorations of the vascular tissues of bract scars, fruit pedicels, male axis, peduncle, crown, central portion of the stalk, and in very severe cases in the corms.



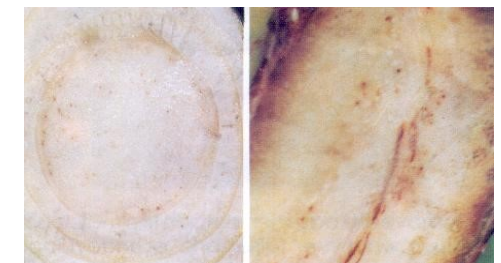
Bract Scars

Fruit Pedicel



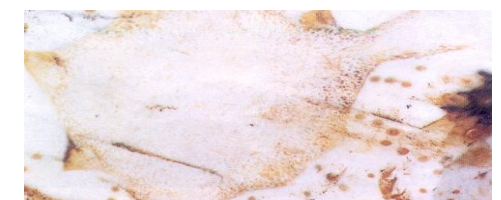
Male Axis

Peduncle



Central portion

Crown



Corm