



Ministry of Industry, Commerce, Agriculture and Fisheries  
Research and Development Division

## PEST ALERT

### Frosty Pod Rot of Cocoa

#### What is Frosty Pod Rot?

This is a disease caused by the fungus *Moniliophthora roreri*. The fungus invades actively growing cocoa pods damaging them and the seeds they produce.

#### Origin and distribution

The disease first appeared in Colombia in 1817 and has since spread to other South American, Central and North American countries. Some of these are Ecuador, Costa Rica, Panama, Bolivia and Mexico.

#### How does it spread?

The fungus produces large amount of spores that are dispersed by wind, water or physical disturbance of the pod. Seed trade, smuggling and other human activities cause the disease to be spread over long distances.



#### Symptoms

Young pods show light yellow swellings and sometimes distortion. The seed mass may become soft and watery.

Older pods show generally large necrotic, dark brown spots with irregular borders. Partial or total premature ripening occurs and internally the seeds become reddish-brown.

As the disease advances, most of the external necrotic surface becomes covered by a thick whitish fungal growth.

#### Impact

- Yield losses as high as 100%
- Loss of income for cocoa farmers
- Abandonment of cocoa plantations
- Entire destruction of a fragile industry

**If you see any symptoms resembling Frosty Pod Rot report it immediately to the relevant authorities.**

**Cocoa Industry Board: 923-6413, RADA: 1 888 275 7232, Plant Quarantine/ Produce Inspection: 977 0637/6401, Research and Development: 754 2957, WhatsApp: 435 5828**