

Declaration of Pest Free Status of New Britain Island in Papua New Guinea - Specifically Palm Lethal Yellowing (Phytoplasma 16 Sr IV)

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Introduction

- Oil palm is highest agricultural export
- New Britain Palm Oil Limited (NBPOL), the largest oil palm company in PNG
- Dami Oil Palm Research Station (DOPRS) seed production scheme and seed export
- In December 2005 Indonesian Quarantine imposed ban on DOPRS seeds





Fig. 1: Oil palm seeds

Fig. 2: Oil palm seed plants at Dami Oil Palm Research Station

Introduction (cont.)

 Coconut lethal yellowing phytoplasma and banana wilt associated phytoplasma were confirmed in 2009. Both phytoplasma diseases are related to the lethal yellowing phytoplasma that attacks oil palm.



Fig.3: Coconut Lethal Yellowing Phytoplasma

Fig. 4: Banana Wilt Associated Phytoplasma

Scope

 Document and provide relevant information by NPPO to confirm disease free status of PNG oil palm seeds of Phytoplasma 16Sr IV lethal yellowing of palms.

Background

- The Indonesian Plant Quarantine raised concern over the possibility of phytoplasma infected seeds exported by DOPRS.
- A temporary ban on the importation of DOPRS seeds was issued on December 2005.
- The interim ban place economic and social impact on seed production and export by DOPRS.
- Officials of the NPPOs from Indonesia and PNG met with industry representatives on February 2006 in Jakarta. The meeting resolved the following:

Background (cont.)

- The dispute could be resolved with independent verification of the absence of lethal yellowing through molecular diagnosis.
- PNG NPPO to prepare the status of lethal yellowing in the country based on ISPM 8.
- PNG NPPO to conduct survey for the presence of lethal yellowing in seed mother palms at DOPRS.
- Indonesian NPPO to visit DOPRS to conduct PRA.

Purpose of Pest Status Determination

- A report was prepared as a requirement by the Indonesian Quarantine authority to re-establish importation of oil palm seeds from PNG.
- PNG NPPO and stakeholders contributed relevant information consistent with requirements in ISPM 4, 6 and 8.

Determination Pest Free Area

In determining the Pest Free Status of New Britain Island for Phytoplasma 16Sr IV lethal yellowing, NPPO has considered the following:

- 1. No lethal yellowing has been previously diagnosed and scientifically proven in oil palm from Papua New Guinea.
- 2. The vector of lethal yellowing *Myndus crudus* has not been recorded in Papua New Guinea.
- 3. No oil palm seeds have been imported from countries that have lethal yellowing phytoplasma in the past and used in the breeding program at DOPRS.

Determination Pest Free Area (cont.)

- 4. No lethal yellowing symptoms have been recorded in oil palm plantation in PNG which has used DOPRS seed exclusively since 1974.
- 5. If the mother palms do not have the disease then the seeds produced will equally be free of the disease.
- 6. Independent laboratory analysis was conducted in Australia have yield negative tests for lethal yellowing phytoplasma.

Determination Pest Free Area (cont.)

- 7. Seed borne transmission of lethal yellowing phytoplasma is considered extremely unlikely.
- 8. If lethal yellowing phytoplasma was present, the disease could have been detected through specific and general surveys.
- NPPO therefore concludes that the island of New Britain is free from lethal yellowing Phytoplasma 16Sr IV until further notification.
- It follows that seed produced by Dami OPRS within New Britain Island is similarly free from lethal yellowing Phytoplasma 16Sr IV until further notification.

Establishment and Maintenance of Pest Free Area

The following systems have been reviewed and are designed to established and confirm that Dami Oil Palm Research Station on New Britain Island is **free** of lethal yellowing phytoplasma:

- 1. Oil palm and coconut pests and diseases through general surveys have been authenticated and updated regularly.
- 2. Samples of seedlings suspected with lethal yellowing infection at Aisikee Oil Palm Project, West Papua, Indonesia were tested in Australia and yielded negative to lethal yellowing phytoplasma.
- 3. Leaf samples from mother seed palms at Dami Oil Palm Research Station have been tested in Australia gave negative results to lethal yellowing phytoplasma.

Establishment and Maintenance of Pest Free Area (cont.)

4. Both oil palm and coconut germplasm are restricted imports. PNG NPPO conducts pest risk analysis before the importation of any new products of plant origin into PNG.

5. NPPO conducts annual pests surveillance alone or jointly with Australian Quarantine (NAQS). Oil palm and coconut industries conduct separate pest surveillance and monitoring.

Transparency

1. Publication and IPPC website

- The declaration of pest free status of oil palm seed gardens at Dami OPRS will be uploaded on the IPPC website to inform all stakeholders.
- Should a change occur to the pest free status of New Britain Island in relation to lethal yellowing Phytoplasma disease then NPPO undertakes to use the same mechanism to inform all stakeholders of the change in status.

Transparency (cont.)

2. Review of oil palm pest and diseases recorded in PNG

- A review of oil palm pests in PNG must be published by the PNG oil palm research association, NPPO and other collaborating scientists.
- **3. Review of coconut pests and diseases recorded in PNG**
- A review of coconut pests in PNG must be published by the PNG Cocoa and Coconut Institute, NPPO and other collaborating scientists.

End of Presentation and Thank You

