INTRODUCTION

There are two types of Ganoderma that grow on oil palm (living and dead) and dead coconut. The ‘palm’ type, *Ganoderma boninense*, is the major pathogen on oil palm and is commonly found in large numbers on dead coconut logs. The ‘forest’ type, *Ganoderma tornatum*, grows mainly as a saprophyte on coconut and oil palm logs & stumps. It is also very common on hardwood logs. This species may sometimes act as a mild pathogen on oil palm, however it does not pose a significant threat. This guide will assist field staff to distinguish the two species.

**THE ‘PALM’ TYPE - *Ganoderma boninense***

**UPPER SURFACE**

Appearance: Shiny (like varnish). If it's covered in spores or old it will look dull. Wipe it with a wet cloth. Sometimes has a white margin (edge) and concentric ridges (zonations).

Shape: Shell-like, front edge is (usually) wider than the back. Bracket sometimes has a stalk.

Colour: Reddish-brown to very dark brown, almost black. Some specimens may have an orange colour.

Texture: Leathery when fresh. Hard when dry, but easily scratched with a knife. When scratched the colour is rust/orange and rough.

**LOWER SURFACE**

Form: Usually flat, thickening very slightly towards the back. Thinner at the margin (edge). When dry the margin will curve (under) inwards. Pores can be seen

Colour: White to cream when young and fresh. Has a yellowish tint when dry. Colour when bruised with fingertips or scratched with fingernails is dark brown.

**SPORE PRINT**

Colour: Dark chocolate-brown. Has a lighter brown colour when the spore print is not dense. Looks darker when spores are wet. Allow to dry before comparing with *G. tornatum*.

**OTHER FEATURES**

Cross-section: When cut, tubes are clearly visible and brown-light brown. Context (area above the tubes) is reddish brown in colour.
**The ‘Forest’ Type - Ganoderma tornatum**

**Upper Surface**

**Appearance:** Dull. If it is wet it will look shiny. Let it dry. Sometimes has a white margin (edge). Has concentric ridges (zonations) or bumps (*in older specimens*).

**Shape:** Fan-like, semi-circular (usually) with rounded margin. Rarely has a stalk. In old specimens, or specimens from hardwoods or coconut, surface is deformed.

**Colour:** Olive-brown to brown. With spores on the surface it will look reddish or light brown; wash them off.

**Texture:** Tough when fresh (*not easily bent*). Very hard when dry. Hard to scratch with a knife, when scratched colour becomes dark brown and looks shiny.

**Lower Surface**

**Form:** Angular, much thicker at the back than at the margin. Sometimes the margin appears to turn upwards. Pores can be seen.

**Colour:** White to grey when fresh. Off-white to tan when dried. Colour is brown when bruised with fingertips. Specimens from oil palm may have a yellow tint when dry.

**Spore Print**

**Colour:** Brown to dark brown when seen in bright sunlight. Appears dark brown when wet or dense. Allow to dry before comparing with *G. boninense*.

**Other Features**

**Cross-section:** When cut, tubes are visible but closer together than in *G. boninense* and are dark brown in colour. Context (*area above tubes*) is brown.

**Notes:**

1) To obtain a spore print, suspend a piece of clean white paper 1 cm beneath the pores of the fruiting body. Leave for 1-5 hr. Allow to dry completely. Compare the colour to that shown.

2) Bruising - press down hard on the under surface of the fruiting body with your thumb. Allow to dry.

3) *Ganoderma* taxonomy is not static, species names may change.

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