



NSW Agriculture

# Panama disease management for machinery operators

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## INTRODUCTION

Panama disease is a fungal disease *fusarium oxysporum* f.sp. *cubense* that is spread by movement of infected banana plants or soil.

Panama disease kills banana plants by infecting the root system and blocking the transport of water through the plant.

There is no cure. Once a plantation is infected susceptible varieties cannot be grown.

There are three races of the disease in NSW:

- Race 1 affects ladyfinger and ducasse, among others, but not Cavendish.
- Race 2 affects 'Bluggoe' and other closely-related cooking varieties.
- Sub-tropical Race 4\* kills ladyfinger, ducasse, Cavendish and other varieties.

Race 1 is common in the northern banana-growing districts of Tweed, Brunswick and Richmond. It has also been confirmed on several banana plantations in the Coffs Harbour district and is likely to be present on other plantations in the area.

Race 2 occurs at one site in the Alstonville area.

Race 4 also occurs in the northern districts but only on a few properties.

More than 70% of plantations in the Tweed and Brunswick have Panama.

Many diseased plantations have gone out of production but the farms still remain a source of infection. Panama spores can survive in soil for up to 30 years.

A Cavendish plantation infected with Race 1 will not show symptoms but ladyfinger and ducasse will die if planted into the same site.

## WHAT YOU NEED TO DO

To keep your farm free of Panama disease avoid movement of plants, soil or mud between properties. Assume every banana plantation is a risk.

Muddy boots and vehicles are obvious risks and should be cleaned between visits to different farms. Use a sterilant if available.



[www.agric.nsw.gov.au](http://www.agric.nsw.gov.au)

Remove all soil from vehicles and machinery and wash down with a compound containing quaternary ammonium when leaving properties where bananas are growing, or have previously grown. Have a designated wash-down area and ensure wash water does not contaminate farm dams, watercourses or drainage areas where water could drain into banana plantations. Do not use water from farm dams for washing down as this could spread contamination.

When excavating in areas where bananas have been grown ensure disturbed soil is protected from erosion so it does not enter drainage areas for dams, watercourses or banana plantations. This may involve the use of sediment traps and revegetation of disturbed sites.

All water used for drilling must come from a clean water supply, such as town water. Water from possibly contaminated farm dams must not be used.

Any material, such as roadbase or fill, that is imported should be from a clean site and should not be stockpiled on a site that could be contaminated.

All staff should be trained in hygiene procedures.

The risks are more easily managed in dry weather.

These control measures will also stop the spread of weeds between farms.

## FURTHER INFORMATION

For more information contact NSW Agriculture Coffs Harbour 6650 3111 and Murwillumbah 6672 2770.

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The information contained in this publication is based on knowledge and understanding at the time of writing (May 2004). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up-to-date and to check currency of the information with the appropriate officer of New South Wales Department of Agriculture or the user's independent adviser.

Edited by Sylvia Porss

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\* Race 3 does not affect bananas.