

**Cyclones can cause massive damage in Queensland's wet tropics and in addition to the usual pre-cyclone preparation, there is now the issue of Panama Tropical Race 4 (TR4) for northern banana farmers to consider.**

Pre-cyclone planning is critical and growers need to prepare a clear plan for minimising the spread of Panama TR4 during and after a cyclone event. There will be some things that are beyond anyone's control such as flooding and wind, however there are many things within our control that can reduce the risk of spreading TR4 in the event of a cyclone.

### Planting material

Planting material is a high risk pathway for the spread of Panama TR4.

Key considerations in your cyclone planning:

- Clean planting material produced under an accredited scheme (QBAN) is the best source of planting material after a cyclone. Tissue culture laboratories and nurseries will have the best chance of meeting demand if orders are placed as soon as possible after the cyclone so they can increase their production.
- Rehabilitate damaged plantings (if possible) rather than replant.
- Do not source bits and suckers from other properties or be tempted to donate or sell bits and suckers to other growers following a cyclone.
- Another option is to plan ahead and set up a tissue culture-sourced nursery

on your own property in a biosecure area away from flood-prone sites. Bits and suckers from your nursery can then be used for replanting your own farm.

- If you have set up a nursery area, protect stools and suckers by cutting down the canopy and bunches before a cyclone.
- Beware of buying non-QBAN potted plants after a cyclone. Suitable sterile potting mix may be scarce so potting mix may have come from potentially contaminated sources. For example river sand and council composted green waste may be contaminated with TR4 or other diseases.

### Plant material

A lot of waste banana plant material will need to be cleaned up after a cyclone. Avoid dumping in areas outside your farm if possible.

### Soil movement

Material (including soil) carried in floodwaters is beyond anyone's control, however we may be able to control the movement of people, vehicles, machinery, tools and equipment carrying potentially contaminated soil.

- After previous severe cyclones there was an influx of people into the district with little knowledge or understanding of biosecurity. Authorities involved in cyclone recovery will provide some biosecurity training but you should remain vigilant to reinforce that

## Planning

training at your farm. When utility workers, emergency services and volunteers need to access your property after a cyclone, ensure that good biosecurity practices are maintained. Ensure biosecurity signs (with contact phone number) are at all entry points. Check disinfection facilities are present and operational at entrances to your farm.

- Electricity outages are likely and may persist for an unknown time after a cyclone. Backup generators or fuel-driven pumps will be needed to maintain operation of electrically driven wash-downs. Manually operated sprayers will allow for backup disinfection of emergency staff, vehicles and footwear.
- Having someone trained in biosecurity and decontamination procedures stationed at your farm entry/exit points will help to ensure any non-essential visitors are excluded and disinfection of essential vehicles, machinery and footwear is carried out properly.
- Restore critical barriers that may be downed after a cyclone or with flooding. Temporary barriers may be sufficient to stop accidental access by people onto your farm.
- Before a cyclone, it is preferable to define and segregate areas where flooding may bring soil or banana plant material onto the farm. Always undertake farming operations on these areas last and decontaminate machinery exiting these areas.

## Cyclone/Panama TR4

- Items used in the paddock for banana production such as bunch bags, string, dripper tube, bunch slips etc. may become contaminated by TR4 spores in a cyclone and subsequent flooding. These items would be considered as a risk and preferably be stored in a low risk place on the property until they can be disposed of by deep burying on the farm. Do not recycle these items.

### Feral animals

Feral animals roam widely after a cyclone due to reduced food sources. They are more likely to enter your farm searching for food. Pigs in particular can carry potentially infected soil as they move across farms. Fencing should be replaced as soon as possible.

### Transport

#### Fruit transport contractors

After a cyclone there will most likely be reduced supplies of fruit from any one farm and transport trucks will be visiting more farms taking away smaller loads more frequently. This is another reason to plan for adequate backup disinfection facilities.

#### Farm supply vehicles

Plan to reduce the number of visits by off-farm supply vehicles after a cyclone by stocking up on things like fuel, cartons, fertilisers and irrigation equipment before a cyclone. Also road closures caused by flooding and downed infrastructure may limit the ability of delivery vehicles to visit your farm immediately after a cyclone.

### Salvaging fruit after a cyclone

Salvaging downed fruit (in contact with the soil), or bunches that were in contact with floodwaters (and the suspended silt), may pose a risk to TR4 spread. So, growers need to comply with the General Biosecurity Obligation (GBO) and not enable soil or leaf matter to leave the farm. For more information on the GBO please visit the Department of Agriculture and Fisheries GBO webpage on this link: <https://www.daf.qld.gov.au/biosecurity/about-biosecurity/biosecurity-act-2014/information-and-resources-about-the-act/overview-and-foundation-principles/general-biosecurity-obligation>

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