

Chlorpyrifos Dust is an organophosphate insecticide which is commonly used in the control of bunch pests.

The permit for use (PER14240) is held by the Australian Banana Growers' Council and is current until 30 SEP 2020. It includes all registered products containing 500 g/kg Chlorpyrifos as their only active constituent.

Directions for use in Bananas:

Insect Pests	Application rate
Sugar cane bud moth, Banana scab moth, Rust thrips, Mealy bugs and Caterpillars	Dust is prepared by mixing at a rate of 100 g product per 5 kg talc. Apply 2 - 5 g of prepared dust per bunch

Chlorpyrifos is a poison which exerts its insecticidal action by affecting an important enzyme involved in transmitting nerve impulses in the body.

Chlorpyrifos can poison humans as well as insects if absorbed through the skin, inhaled or swallowed.

Major exposure can be fatal but repeated exposure may cause allergic disorders and repeated minor exposure may have a cumulative poisoning effect.

It is therefore very important the product is used according to the label and permit instructions including the use of personal protective equipment.

Under Work, Health and Safety (WHS) Laws, businesses are required to ensure, so far as is reasonably practicable, the health and safety of their workers while at work. In terms of chemical use this includes:

- ⇒ the provision of a safe work environment and safe systems
- ⇒ the safe use, handling, storage and transport of substances
- ⇒ provision of any information, training, instruction or supervision that is necessary to protect workers from risks to their health and safety arising from their work.
- ⇒ monitoring the health of workers and the conditions at the workplace to prevent illness or injury of workers arising from doing their work.

Therefore employers have a duty to ensure their employees **understand how** to use the product safely and are **provided with the correct equipment** to ensure their safety.

There are significant penalties for failing to comply with the WHS Laws.

Critical factors for chlorpyrifos use:

- ⇒ Use Unimin Talc T45B or equivalent to prepare dust.
- ⇒ Do not apply excessive dust. Apply a light coating of dust to the inside of the bunch cover and fruit.
- ⇒ Dusting should occur within a week of bunch covering.
- ⇒ Apply one application only.



Personal Protective Equipment:

People operating under this permit must adhere to the following directions and should consult the safety data sheet:

- ⇒ When opening the container and mixing with talc: wear a dust mask or half facepiece respirator, cotton overalls buttoned to the neck and wrist and washable hat, PVC gloves and goggles.
- ⇒ When applying the prepared dust wear a dust mask or half facepiece respirator, cotton overalls buttoned to the neck and wrist and washable hat.
- ⇒ After use wash hands and contaminated clothing.

Exposure guidelines have been established for Chlorpyrifos and users may require health monitoring.

For more information see Safe Work Australia's guide on 'Hazardous Chemicals requiring Health Monitoring' and the section on Organophosphate pesticides for worker monitoring protocols.

Other products which are registered for use in controlling bunch pests include:

Alternatives for bunch application	Control chemicals with alternatives application methods
Chlorpyrifos - e.g. Strike-out 500 scab moth, weevil borer and caterpillars	Imidacloprid SusCon Yellow (granules) Rust thrips, banana weevil borer and grey back cane grub.
Imidacloprid - e.g. SusCon Ribbon scab moth, rust thrips, russet mite and sugarcane bud moth in bananas.	Spirotetramat (Movento energy is a mix of Imidacloprid and spirotetramat) – however this is only approved for rust thrips and banana weevil borer
Acephate e.g. Titan 970 scab moth, flower thrips and rust thrips. Bell injection/ bunch spray	Spinetoram (Success) - registered in bananas for rust thrips but not flower thrips
Bifenthrin- e.g. Venom, Talstar – flower thrips, rust thrips and scab moth banana weevil borer	Fipronil (Regent) (registered for rust thrips)
Omethoate (Folimat - being phased out)	

