

Why is Pyrethrum better?

- > Pyrethrum is a natural insecticide produced by the daisy-like plant pyrethrum, *Tanacetum cinerariifolium* (also known as *Chrysanthemum cinerariaefolium*).
- > The insecticide is concentrated in the flowers of the growing plant.
- > The active consists of six molecules called the pyrethrins, which have very similar structures, chemical and insecticidal properties.
- > Pyrethrum has a very long history of use as an insecticide and studies of the structures and mode of action of the pyrethrins were used to develop the synthetic pyrethroids such as permethrin, bioallethrin and cypermethrin.

Insecticidal characteristics of Pyrethrum

- > Pyrethrum is a broad-spectrum insecticide, which is effective against a wide range of pests including common household pests such as flies, mosquitoes, cockroaches and agricultural / garden pests such as caterpillars, whiteflies, aphids, leafhoppers, beetles and thrips.
- > Pyrethrum also acts as a repellent and an 'exciter' – increasing the activity of many insects so that they are 'flushed' out of their hiding places. This increases the exposure of the pest with the insecticide.
- > Another feature of pyrethrum is rapid-knockdown (or fast-action) compared to many other insecticides.
- > Pyrethrum is generally combined with a synergist, such as piperonyl butoxide, which increases efficacy.

Environmental characteristics of Pyrethrum

- > Pyrethrum is rapidly decomposed in natural sunlight and air.
- > Pyrethrum is poorly absorbed and translocated by plants.
- > It has low volatility, is readily biodegradable and is classified as immobile in soil (McCall classification system).
- > Pyrethrum does not persist in the environment. Pyrethrum sprays tend to remain on the surface of plants and soil where they are rapidly degraded to harmless metabolites including CO₂.
- > Tests have shown that only 3% of applied pyrethrum remains within 5 days of being sprayed onto the leaves of potatoes and tomatoes.

Toxicological characteristics of Pyrethrum

- > Pyrethrum has very low mammalian toxicity.
- > The pyrethrins are extensively metabolised by mammals. None of the degradation products are known to be harmful.
- > The pyrethrins and their degradation products are excreted from the body.
- > Tests on human volunteers show that the pyrethrins are poorly absorbed through the skin. Only 0.22% of an applied dose was absorbed over 8 h and most of this was excreted in the urine within 24 h.
- > Pyrethrum is a broad-spectrum insecticide which is effective against a wide range of insect pests.



Grown in Tasmania & manufactured in Australia by Australian farmers.



□ Unit 6, 105 Derby Street
Silverwater NSW 2128
PO Box 6186
Silverwater NSW 1811
Tel 02 9647 2111

□ Unit 2
247 Ingles Street
Port Melbourne
VIC 3207
Tel 03 9676 4444

□ 5/121
Kerry Rd
Archerfield
QLD 4108
Tel 07 3255 5572

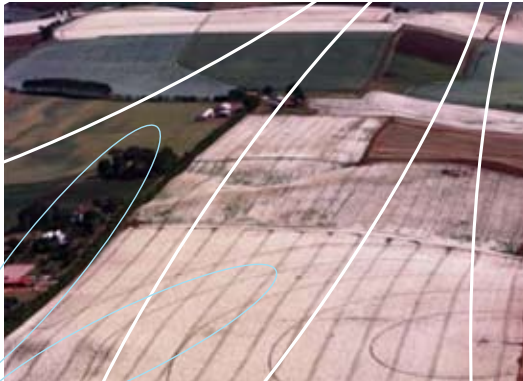
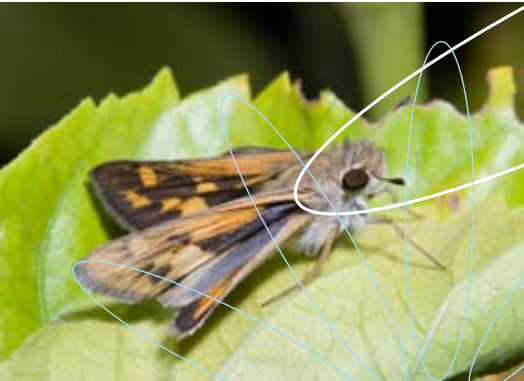
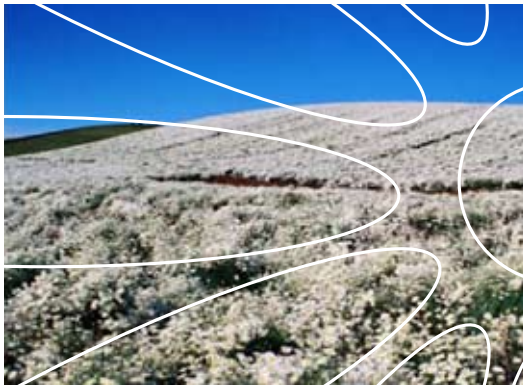
□ 3/85
Munnibung Rd
Cardiff
NSW 2285
Tel 02 4954 7700

ABN 20 004 411 018

1800 554 445

www.agservaustralia.com

Pyrethrum. Natural.



“Go Natural with your Pest Control”

Py Range



PY MATIC

14g/L Pyrethrin
60g/L Piperonyl Butoxide
150g Aerosol

Py Matic is a metered spray of Natural Pyrethrin for use in the Time Mist unit. The automatic timed release spray controls a wide range of insects in an enclosed area.

Ideal for homes, stables, kennels, sheds and food areas, Py Matic allows you to control insects effectively and automatically - even when you're not there.

- ◆ 24/7 Insect control
- ◆ Five year guarantee
- ◆ Solid state circuitry
- ◆ Chemical resistant plastic cabinet
- ◆ Easy to install, maintain & clean
- ◆ Quiet operation



PY FOG

4g/L Pyrethrin
12g/L Piperonyl Butoxide
5L, 20L

Py Fog is a ready to use formulation with a refined mineral oil base for thermal fogging.

Py Fog is developed for use in Swingfog, Golden Eagle, Super Hawk, Pulsefog and other thermal foggers.



PY SPRAY

10g/L Pyrethrin
50g/L Piperonyl Butoxide
300g Aerosol

Py Spray is a ready to use professional aerosol for control of a variety of insects.

Py Spray can be used as a space spray or as a crack n crevice spray for flushing insects from harbourages.

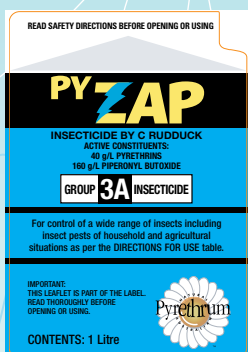


PY MIST

4g/L Pyrethrin
12g/L Piperonyl Butoxide
5L, 20L

Py Mist is a ready to use solvent based formulation for use in cold fogging.

Py Mist is developed for use in electric fogging machines such as the Trijet & Hurricane. Can also be used as a surface spray through knapsack sprayers etc.



PY ZAP

40g/L Pyrethrin
160g/L Piperonyl Butoxide

Py Zap is a concentrated formulation which can be diluted with water, solvent or mineral oil to be used in a variety of situations.

Py Zap is a micro-emulsion that delivers consistent size droplets for a superior adhesion to target insects.

Py-Zap is a new pyrethrum based water miscible general purpose insecticide. Py-Zap contains 40g/L Pyrethrin and 160g/L Piperonyl Butoxide as active constituents.

Py-Zap can be used for indoor and outdoor applications including:

- > Indoors for general household disinfestation treatments
- > Outdoors for applications such as fogging to control mosquitoes and other public health pests
- > On farms, gardens or protected cropping for the control of horticultural, garden and agricultural pests

Py-Zap is different from other Pyrethrum and Pyrethroid based insecticides.

- > Py-Zap contains Pyrethrum – (NOT synthetic Pyrethroids, such as Deltamethrin, Cypermethrin etc)
- > Py-Zap is a more concentrated form of Pyrethrum than most other water based formulations available.
- > Py-Zap is a micro-emulsion. Micro-emulsions help to deliver a consistent droplet size when used through standard hydraulic spraying equipment. Micro-emulsion technology delivers a consistent droplet size for superior adhesion to target insects.
- > Py-Zap also contains the synergist Piperonyl Butoxide. Piperonyl Butoxide has been demonstrated to assist neutralising insect resistance pathways.

The following summarises data from independent testing laboratories for a product being developed by BRA. There is a much larger volume of information that has been generated about pyrethrum efficacy on a wide range of insects. For the purposes of brevity and commercial reasons, this data has not been reproduced in this summary.

Type: Concentrate which forms a micro-emulsion when diluted in water.

Active: Pyrethrins - 40g/L; Piperonyl Butoxide – 160 g/L

Table: Percent knock-down (KD) at 0.5, 1 and 2 h after application, and percent mortality (at 24 h) for AP5-03-59B applied at the recommended rate.

Insect	KD			Mortality
	0.5 h	1 h	2 h	
Ant	100%	100%	100%	100%
Housefly	100%	100%	100%	100%
Mosquito	100%	100%	100%	100%
German cockroach	56%	76%	92%	94%

Recommended rate: (one part AP5-03-59B to nine parts water and applied as a space spray at the rate of 1 L per 2800 m3).

For use in: food premises, hotels, motels, hospitals, factories, barns, ships, kennels & storage sheds. Safe & sure Pyrethrin is a natural insect killer, yet it is safe to use where food is stored, cooked or eaten.