



# Product Guide

 **PONCHO**<sup>®</sup>  
PLUS



**Poncho Plus is an insecticidal seed treatment product that has registration in eight crops for the control or suppression of eight important insect pests.**



**Bayer SeedGrowth<sup>®</sup>**

Find out more at [bayercropscience.com.au](http://bayercropscience.com.au)

# Introduction

Poncho® Plus offers a much broader spectrum of control than any other insecticidal seed treatment. It is registered for control of wireworm, cutworm, aphids, lucerne flea (suppression only), redlegged earth mite (RLEM), blue oat mite (BOM), yellowheaded cockchafer (YHC) and African black beetle (ABB). It can be used in a range of crops, including canola, grass and broadleaf pastures and forage brassica, as well as sorghum, maize, sweet corn and sunflowers. Different pest combinations are registered in different crops.

Importantly for canola growers, Poncho Plus will now provide a seed treatment option to manage cutworm and wireworm, while summer crop growers can now control cutworm using a seed treatment for the first time. Previously, they have had to rely on foliar applied insecticides to control this important pest. Cutworms can have a major impact in maize and sorghum crops, damaging leaves or more commonly eating stems, resulting in reduced plant growth or plant death.

Pasture growers now have access to an insecticidal seed treatment that provides protection against major insect pests. Protection below the ground against the yellowheaded cockchafer and African black beetle (grass pastures only), cutworm (grass and broadleaf pasture and forage brassicas) and wireworm (forage brassicas) ensures the root growth that all pasture growers know is essential for setting up a long and productive pasture stand. Protection above the ground reducing foliar damage by lucerne flea, redlegged earth mite, blue oat mite and aphids (forage brassicas only) means quicker time to grazing, cutting and a reduction in the need for foliar applied insecticides.



# Product Information

## Poncho Plus 600 FS

Poncho Plus 600 FS is an insecticidal seed treatment that offers control or suppression of a range of economically important insect pests. These include wireworm, cutworm, aphids, lucerne flea, redlegged earth mite, blue oat mite, yellowheaded cockchafer and African black beetle.

Poncho Plus is a co-formulation containing two highly effective insecticides from the neonicotinoid class of insecticides - clothianidin and imidacloprid. As there is no cross-resistance to conventional long-established insecticide classes, the neonicotinoids have begun replacing organophosphates, pyrethroids, carbamates and several other chemical classes of insecticides used to control insect pests on major crops.

The two active ingredients are highly complementary in terms of their pest spectrum and systemic properties. Additionally, as both active ingredients are from the neonicotinoid class of insecticide, for resistance management purposes Poncho Plus is considered a Group 4A insecticide.

## Clothianidin

Clothianidin is a highly active insecticide for foliar application, soil and seed treatment, combining systemic properties with relatively low application rates.

This insecticide is characterized by good root systemicity and contact toxicity properties and so fits the requirements for use as a seed treatment extremely well.

Clothianidin used as a seed treatment is highly effective against a wide complex of early pests. It has a broad spectrum of efficacy against sucking insects including some lepidopteran pests and chewing insects.

Clothianidin can be described as a low toxicity insecticide with good crop-tolerance characteristics when used as directed as a seed treatment.

## Imidacloprid

Similar to the naturally occurring signal-transmitting acetylcholine, imidacloprid acts by exciting certain nerve cells by acting on a receptor protein. Imidacloprid acts as an acute contact and stomach poison. Because of its novel mode of action, imidacloprid is effective against strains of pests which have developed resistance to other classes of insecticide.

Imidacloprid is characterised by its excellent systemic properties and as a result can be used at relatively low rates. The effective uptake of the active substance via the roots is an important pre-requisite for soil directed applications such as precision irrigation systems (drench), in-furrow applications and seed treatment.

Overseas research has shown that imidacloprid has a broad spectrum of activity, particularly against sucking pests such as aphids, leafhoppers, thrips and white flies. Other pest species effectively controlled by imidacloprid include various beetles, some flies and leaf miners. In Australia, Gaucho® 600 FS (600 g/L imidacloprid) is registered as a seed treatment for the control of a broad range of pests in a range of important crops.

## Product overview

<b>Poncho® Plus</b>	
Insecticide Group	Group 4A
Formulation	Flowable concentrate for seed treatment (FS)
Clothianidin Imidacloprid	360 g/L 240 g/L
Product application rate	500mL/100 kg seed (1.7mL/1000 seeds in maize and sweet corn)
Crop usage	Canola, forage brassica, sorghum, maize, sweet corn, sunflower, pasture (grass & broadleaf)
Insect spectrum*	Wireworm, cutworm, aphids, lucerne flea, redlegged earth mite (RLEM), blue oat mite (BOM), yellowheaded cockchafer (YHC), African black beetle (ABB)

\* Not all pests are controlled in all crops

## Directions for use

Crop	Pest	Rate	Critical Comments
Canola, forage brassica	Wireworm	500 mL/100 kg seed	Poncho Plus will provide protection from wireworms for 3-4 weeks after sowing. Poncho Plus will not protect seedlings from heavy wireworms populations and under these conditions an alternative control option should be considered.
	Cutworm		Poncho Plus will provide protection from cutworms for 3-4 weeks after sowing.
	Aphids		Poncho Plus will provide protection from aphid damage for 3-4 weeks after sowing.
	Lucerne flea		Suppression only of lucerne flea.
	Redlegged earth mite		Poncho Plus will protect emerging seedlings from mite damage for 3-4 weeks after sowing. Monitoring should commence within this period to determine the need for supplementary control measures. Use Poncho Plus as part of an integrated mite management program which may include: <b>For autumn sowing:</b> After a pasture phase sow Poncho Plus treated seed following a well-timed spring insecticide spray (prior to the development of diapause eggs). After a cropping phase a spring insecticide spray is not usually required, however if monitoring in spring finds moderate mite populations, a spring insecticide spray should be applied. <b>For spring sowing:</b> At the end of a pasture phase monitor for mite activity and if necessary apply an insecticide spray prior to sowing Poncho Plus treated seed.
	Blue oat mite		
Maize, Sweet corn	Wireworm, cutworm, Aphid	1.7 mL/1000 seeds	Poncho Plus will protect emerging seedlings from wireworm, cutworm and early season aphid damage for 3-4 weeks after sowing.
Sorghum	Wireworm, cutworm, Aphid	500 mL/100 kg seed	Poncho Plus will not protect seedlings from heavy wireworm populations and under these conditions an alternative control option should be considered.
Sunflower	Wireworm, cutworm	500 mL/100 kg seed	
Pasture (grass and broadleaf)	<b>Broadleaf pasture</b> Lucerne flea, redlegged earth mite, blue oat mite, cutworm	500 mL/100 kg seed	Suppression only of lucerne flea.  Poncho Plus will protect emerging seedlings from mite damage for 3-4 weeks after sowing. Monitoring should commence within this period to determine the need for supplementary control measures. Use Poncho Plus as part of an integrated mite management program – see Critical Comments for canola and forage brassica.
	<b>Grass pasture</b> Lucerne flea, redlegged earth mite, blue oat mite, cutworm, yellowheaded pasture cockchafer, African black beetle		Poncho Plus will provide protection from yellowheaded pasture cockchafer and African black beetle damage for 3-4 weeks after sowing. Ensure that sowing occurs in optimum conditions and be aware of paddock history to avoid sowing into high pest populations. Poncho Plus will not control heavy populations of yellowheaded pasture cockchafers or African Black Beetle.

## Systemicity

- Systemicity - for a seed treatment, is defined as the ability of a compound to be taken up through the roots and redistributed throughout the plant tissues
- The systemic properties of clothianidin are very close to ideal
- Both imidacloprid and clothianidin have more ideal systemicity characteristics than thiamethoxam

### Imidacloprid and clothianidin

- Form a concentrated treated zone around the seed and the roots.
- Are continuously taken up from the treated zone around the roots and translocated quickly through the xylem into leaves
- Are available to the plants even under high or low soil moisture conditions
- Compared to thiamethoxam have superior residual properties under high or low soil moisture conditions.
- Other compounds such as thiamethoxam are slowly metabolised by the plant, readily leached from the root zone and synthetic pyrethroids are non-systemic

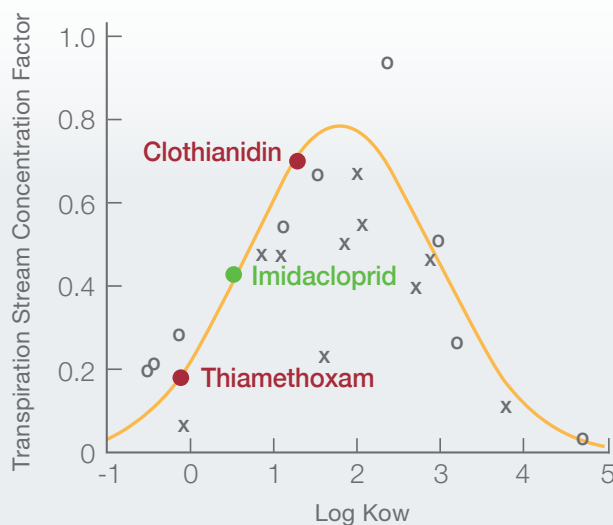


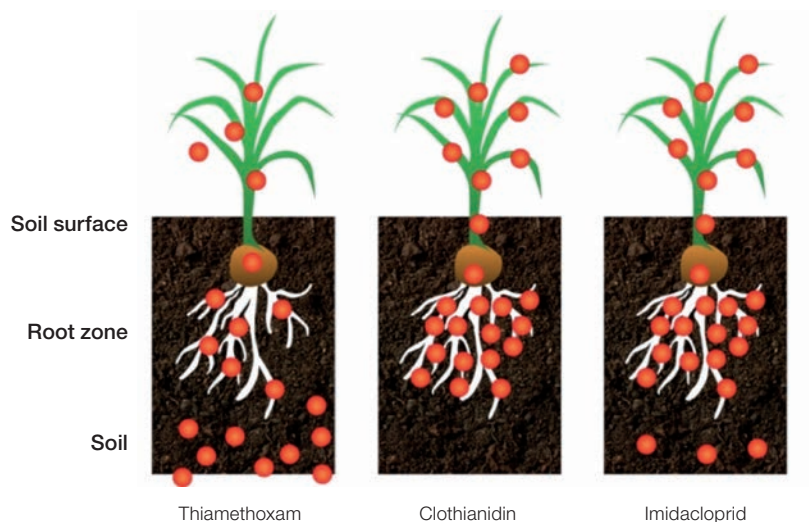
Fig.1. Systemicity of neonicotinoid insecticides. Relationship between the translocation of neonicotinoids to barley shoots following uptake by the roots (Jeschke et al., 2002)

## Behaviour in the soil

- The water solubility of a compound contributes to its availability in the root zone.
- A compound's soil adsorption (binding) coefficient, or Koc value, is a measure of how tightly the compound adheres to soil particles.
- High Koc (>300) values adhere tightly to soil particles making the compound less available for uptake by the roots of a plant.
- Loosely adhering compounds that have high water solubility are subject to excessive leaching beyond the crop's root system with potential to contaminate ground water.
- Both clothianidin and imidacloprid have the combination of optimal soil adsorption and moderate water solubility for good secondary redistribution and bioavailability in the root zone.

The balance of water solubility and its strong adsorption of organic soil particles (Koc -value) prevents clothianidin from leaching and ensures a long lasting bioavailability.

	Thiamethoxam	Clothianidin	Imidacloprid
Water Solubility	4100 ppm	327 ppm	510 ppm
Koc-value	70	160	319



## Pest/Crop summary

	Sorghum	Maize / Sweet corn	Sunflowers	Canola, forage brassica	Broadleaf pasture	Grass pasture
Cutworm						
Wireworm					–	–
Aphids			–		–	–
Redlegged earth mite	–	–	–			
Blue oat mite	–	–	–			
Yellowheaded cockchafer	–	–	–	–	–	
African black beetle	–	–	–	–	–	
Lucerne flea (Suppression only)	–	–	–			

■ Control     
 ■ Suppression     
 ■ No registration

## Product comparison (canola)

	Crop	Cutworm	Wireworm	Aphids	Redlegged earth mite	Blue oat mite	Lucerne flea
Poncho Plus	Canola, forage brassica						
Cruiser® Opti	Canola	–	–			–	
Gaucho® 600	Canola, Forage brassica	–	–				–
Cosmos®	Canola	–	–	–		–	–

■ Control     
 ■ Suppression     
 ■ No registration

# Pests

## Cutworm (*Agrotis infusa*)

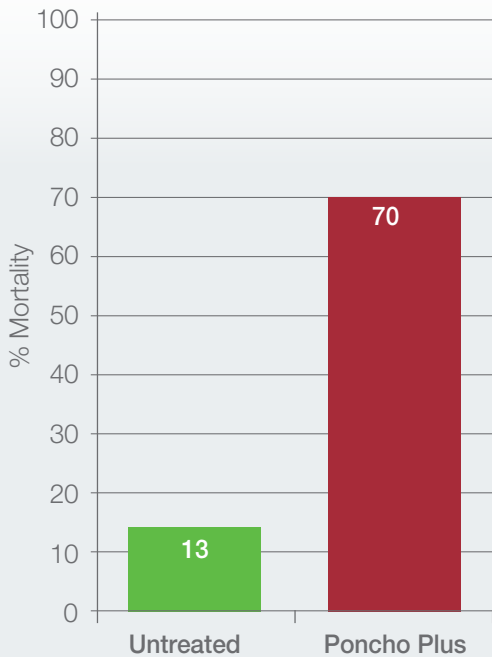
CANOLA	FORAGE BRASSICA	SORGHUM	GRASS PASTURE	BROADLEAF PASTURE	MAIZE	SWEETCORN	SUNFLOWER
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Grey = Not registered for the crop    Yellow = Registered in the crop

- Cutworms are the larvae of the Bogong moth
- Attack seedlings at the base of plant, “cutting” the plant off at ground level
- Normally feed at night and spend the day just beneath the soil surface
- Control with foliar sprays can be very difficult.

### Control of cutworm in canola

Average of 4 trials



Trials: W10-353, W10-354, W11-397, W11-398  
 Application rates: Poncho Plus 500 mL/100 kg  
 Please note: Even though untreated, some natural mortality occurs.



### Feeding damage in canola

Average of 4 trials



Trials: W10-353, W10-354, W11-397, W11-398  
 Application rates: Poncho Plus 500 mL/100 kg





# Wireworm

CANOLA	FORAGE BRASSICA	SORGHUM	GRASS PASTURE	BROADLEAF PASTURE	MAIZE	SWEETCORN	SUNFLOWER
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Grey = Not registered for the crop    Yellow = Registered in the crop

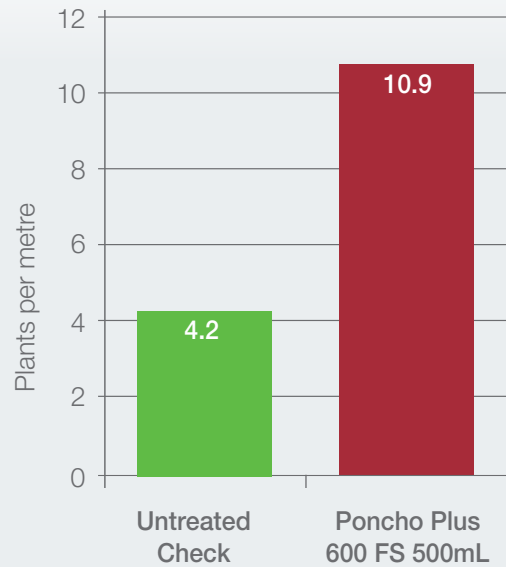
The true wireworm is a soft bodied larva with a flattened head approximately 20 mm long and is the larval stage of the click beetle from the Elateridae family.

- Wireworm cause damage by feeding on the roots of plants which affects emergence and crop vigour. They particularly target the emerging hypocotyl and early root systems
- Clothianidin provides greater efficacy for chewing insects than imidacloprid or thiamethoxam.



## Wireworm in canola and forage brassica Increase in plant stand compared to untreated.

Average of 4 trials



Trials: W08-235, W09-230, W09-247, W09-342  
Application rates: Poncho Plus 500 mL/100 kg

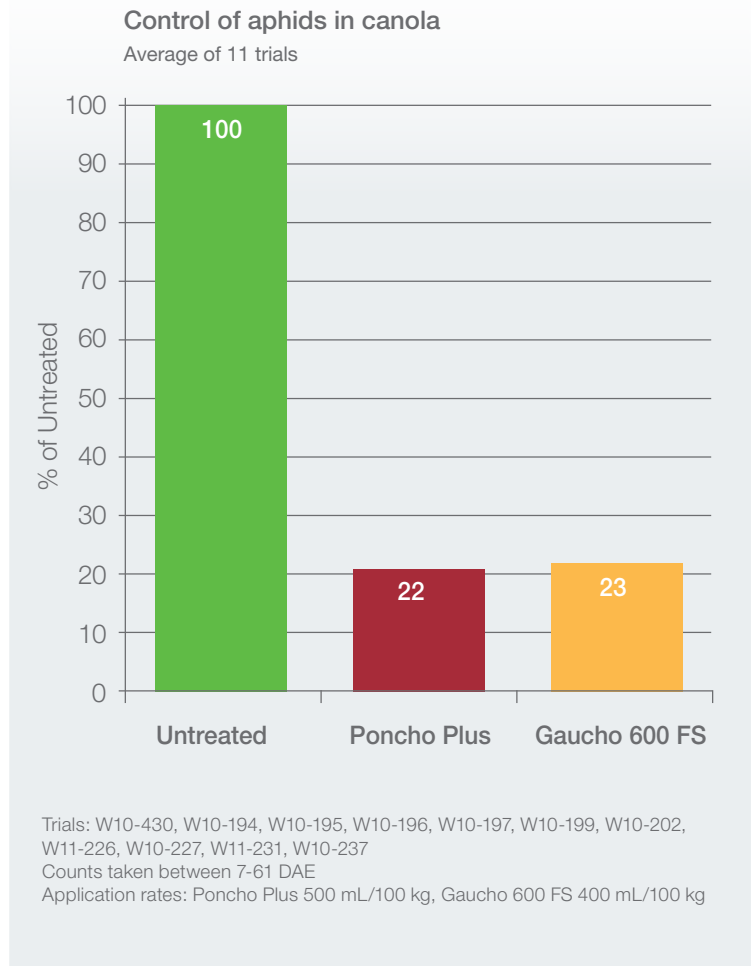
# Aphids

CANOLA	FORAGE BRASSICA	SORGHUM	GRASS PASTURE	BROADLEAF PASTURE	MAIZE	SWEETCORN	SUNFLOWER
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• There are three major canola aphid pests in Southern Australia

- the cabbage aphid (*Brevicoryne brassicae*),
  - the turnip aphid (*Lipaphis erysimi*)
  - the green peach aphid (*Myzus persicae*)
- Aphids transmit viruses to canola such as turnip yellows virus (TuYV) (formally known as beet western yellows virus (BWYV), and turnip mosaic virus (TuMV).



## Redlegged earth mite & Blue oat mite

CANOLA	FORAGE BRASSICA	SORGHUM	GRASS PASTURE	BROADLEAF PASTURE	MAIZE	SWEETCORN	SUNFLOWER
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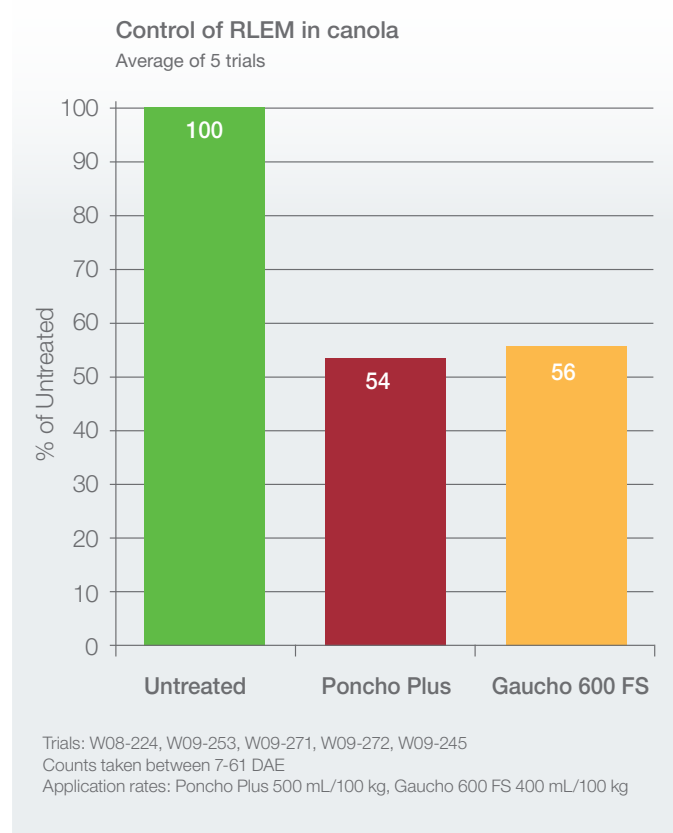
Grey = Not registered for the crop Yellow = Registered in the crop

- Redlegged earth mite (*Halotydeus destructor*), blue oat mite (*Penthaleus major* and *Penthaleus falcatus*).
- Redlegged earth mites and blue oat mites are significant economic pests in canola, forage brassica and pasture. Mites feed on the leaf surface which leads to loss of vigour, reduces plant establishment

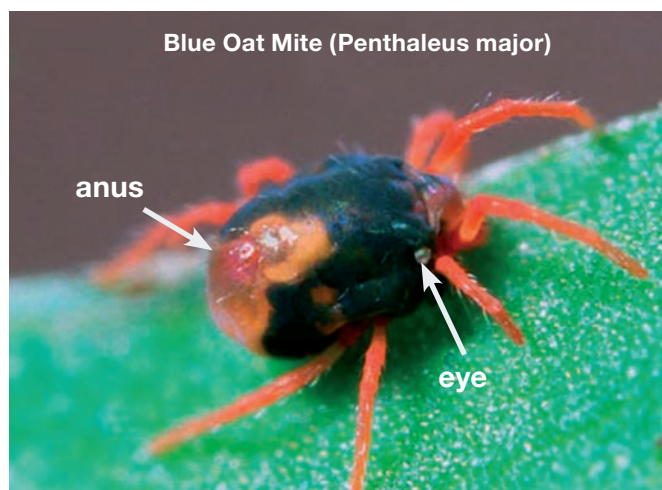
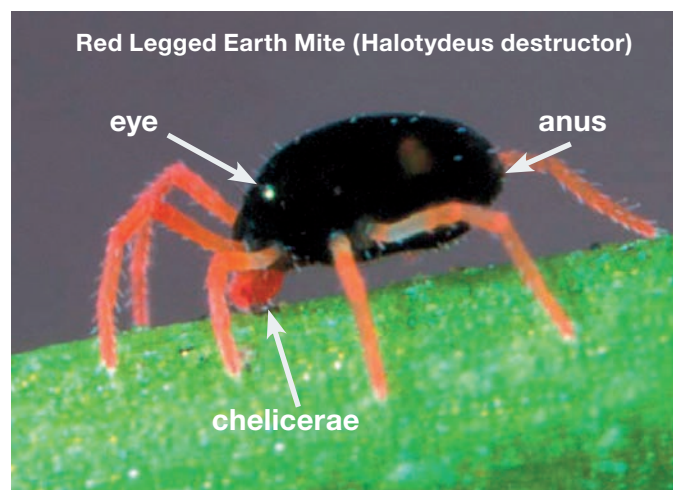
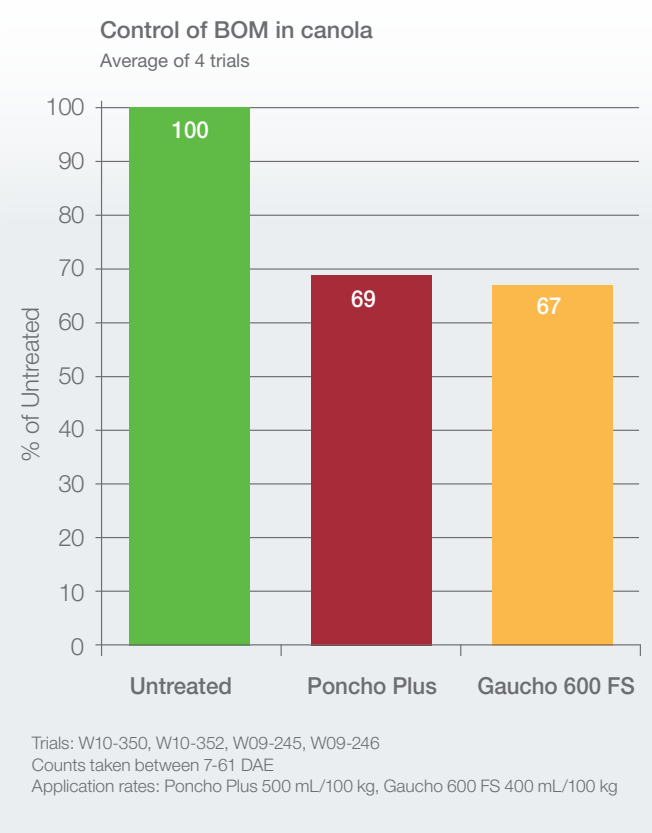
and in severe infestations can completely destroy the crop. The populations of mites build up in grass and legume pastures in spring/summer which then infest the winter crops.

- NOTE – Poncho Plus does not control balaustium mites or bryobia mites.

### Redlegged earth mite (RLEM)



### Blue oat mite (BOM): canola/forage brassica



## Lucerne flea

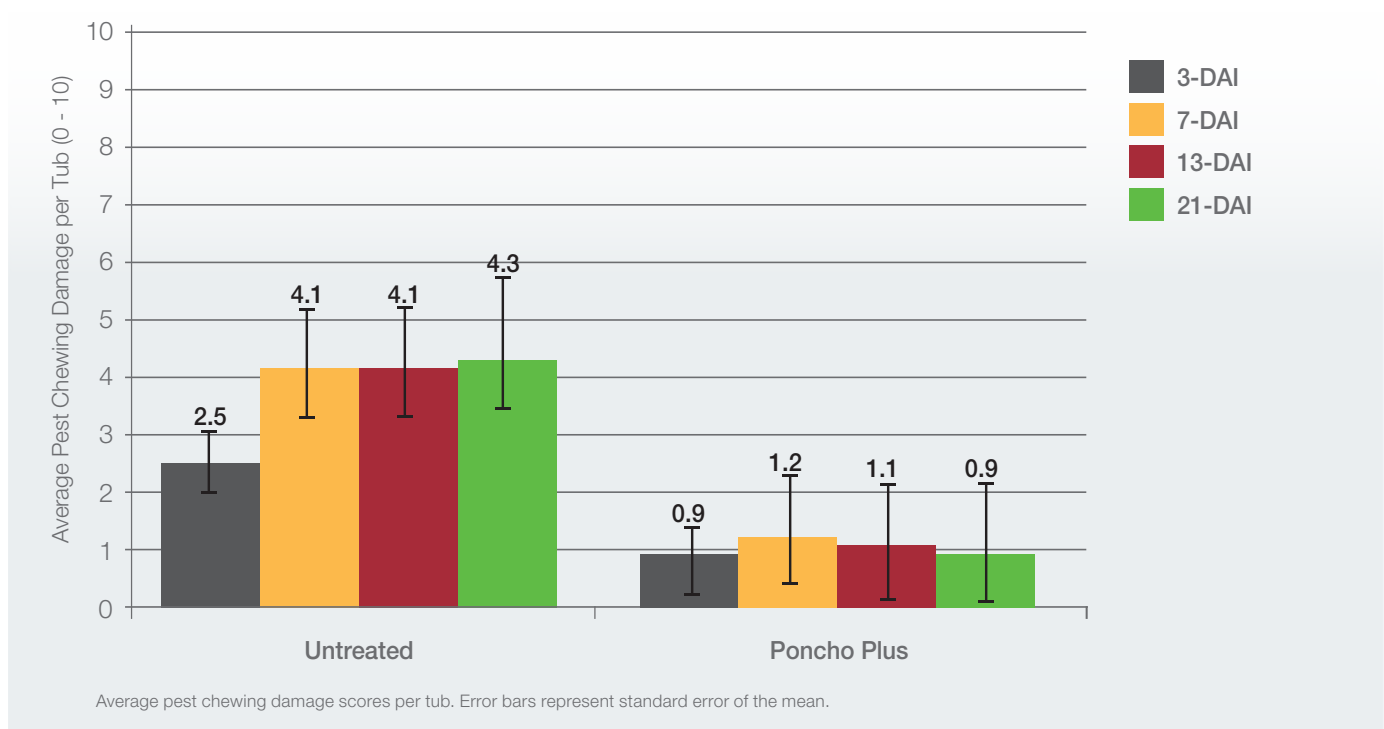
CANOLA	FORAGE BRASSICA	SORGHUM	GRASS PASTURE	BROADLEAF PASTURE	MAIZE	SWEETCORN	SUNFLOWER
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Grey = Not registered for the crop Yellow = Registered in the crop

- Lucerne flea (*Sminthurus viridis*) is an important establishment pest of grain crops and pastures in Australia.
- Suppression of the first lucerne flea generation will reduce the subsequent population growth in the paddock.



Efficacy of Poncho Plus as a Seed Treatment on Canola Against Mite Pests and Lucerne Flea (Microcosm Study).



## Yellowheaded pasture cockchafer and African black beetle

CANOLA	FORAGE BRASSICA	SORGHUM	GRASS PASTURE	BROADLEAF PASTURE	MAIZE	SWEETCORN	SUNFLOWER
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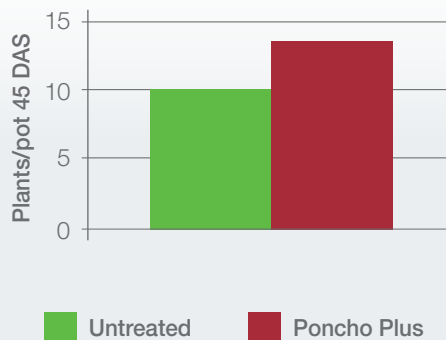
Throughout Australian cropping and pasture regions yellowheaded pasture cockchafer infestations cause a significant loss of yield and productivity every year.

Poncho Plus will also provide a useful level of control of African black beetle in grass pasture.



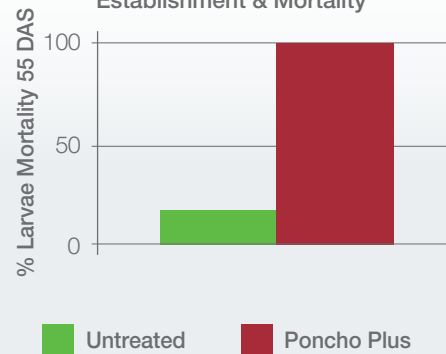
### Yellowheaded pasture cockchafer

Yellowheaded pasture cockchafer - Ryegrass Pot Bioassay - Establishment & Mortality



Trials: W10-374, sig dif

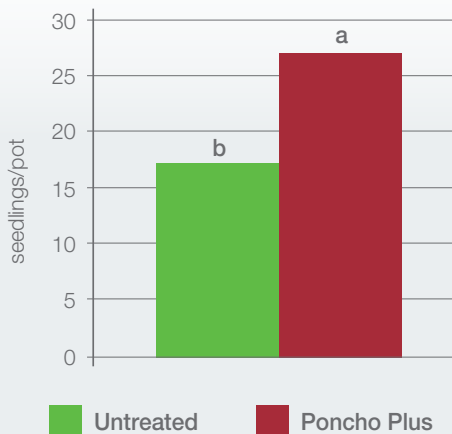
Yellowheaded pasture cockchafer - Ryegrass Pot Bioassay - Establishment & Mortality



Trials: W10-374, sig dif

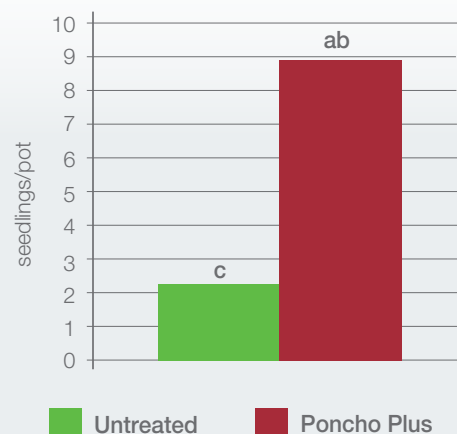
### African black beetle

African black beetle - Ryegrass Plant Establishment in Pots at 14 DAS



Trials: W08-236

African black beetle - Phalaris Plant Establishment in Pots at 7 DAS



Trials: W09-330

# Compatibility

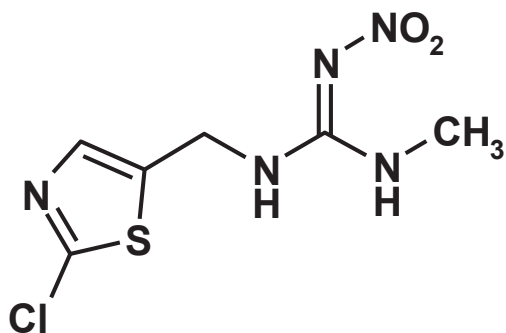
Poncho Plus has been shown to be physically compatible with each of the following products:

Product trade name	Product supplier	Application rate/100 kg of seed	Slurry volume tested (per 100 kg seed)
Jockey® Stayer®	Bayer	2000 mL	3 Litre
Maxim® 100 FS	Syngenta	50 mL	1 Litre & 3 Litre
Maxim XL	Syngenta	400 mL	1 Litre & 3 Litre
EverGol® Xtend	Bayer	35 mL	1 Litre & 3 Litre
Cosmos	BASF	400 mL	1 Litre & 3 Litre
Apron® XL	Syngenta	100 mL	1 Litre & 3 Litre
Thiram 600	Crop Care	350 mL	1 Litre & 3 Litre
Concep® II	Syngenta	180 g	1 Litre & 3 Litre



# Product Profile

## Structural formula clothianidin:

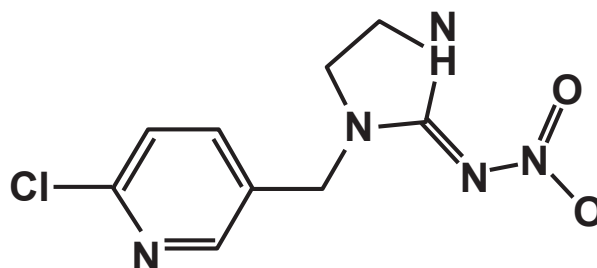


## Formulation

Appearance:	Red liquid
Density:	1.24 g/mL – 1.28 g/mL
Odour:	Characteristic
Vapour pressure:	1.3 x 10 <sup>-10</sup> Pa at 20°C (clothianidin) 2 x 10 <sup>-4</sup> Pa at 20°C (imidacloprid)
Solubility in water:	327 mg/L at 20°C (clothianidin) 510 mg/L at 20°C (imidacloprid)
Corrosiveness:	Not corrosive
Poison schedule:	Schedule 6
Hazchem code:	3Z
DG Class:	Class 9 – ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (imidacloprid, clothianidin solution)

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG code.

## Structural formula imidacloprid:



## Toxicological Properties

Tests have been performed with Poncho Plus Insecticidal Seed Treatment on a number of different animal species using various routes of administration. Poncho Plus is included in Schedule 6 of the SUSMP.

Results obtained include the following:

### Acute toxicity

Oral LD <sub>50</sub> (rat) :	> 300 < 2000 mg/kg
Dermal LD <sub>50</sub> (rat) :	> 2000 mg/kg
Inhalation LC <sub>50</sub> (rat) 4 h:	> 6141 mg/m <sup>3</sup> (clothianidin) > 5323 mg/m <sup>3</sup> (imidacloprid)
	No inhalation data is available for the formulation.
Skin irritation (rabbit):	No skin irritation
Eye irritation (rabbit):	No eye irritation
Sensitisation (Guinea pig):	Non-sensitising

# Behaviour In The Environment

## In crop

Imidacloprid and clothianidin are metabolized to a number of metabolites in crops. Based on the available data, the APVMA has approved the residue definition of imidacloprid as the sum of imidacloprid and metabolites containing the 6-chloropyrinylmethylene moiety, expressed as imidacloprid for commodities of both plant and animal origin and MRLs have been assigned. Based on the available data, the APVMA has approved the residue definition of clothianidin as parent clothianidin for commodities of both plant and animal origin and MRLs have been assigned.

Following application to crops as per the product label, the withholding periods are:

Withholding periods:

### Harvest:

Not required when used as directed

### Grazing:

Maize, sorghum, sweetcorn: DO NOT graze or cut for stockfood for 4 weeks after sowing

Grass pasture: DO NOT graze or cut for stockfood for 6 weeks after sowing

Canola, forage brassicas, broadleaf pasture: DO NOT graze or cut for stockfood for 8 weeks after sowing

## In soil

Imidacloprid is slightly to very slightly degradable in soil with DT<sub>50</sub> values of 68 to 998 days in a range of soils in the laboratory. In the field, DT<sub>50</sub> values ranged between 102 to 433 days. Based on the Koc values, imidacloprid does not bind strongly to soils and may be considered as moderately mobile.

Clothianidin is slightly to very slightly degradable in soil with DT<sub>50</sub> values of 143 to 1001 days in a range of soils in the laboratory. In field studies, the mean DT<sub>50</sub> value was calculated as 431 days. Based on the Koc values, clothianidin does not bind strongly to soils and may be considered as having medium to high mobility in soil.

## Effects on flora and fauna

Poncho Plus and its associated active ingredients, clothianidin and imidacloprid have been tested on a range of fish, aquatic invertebrates, birds, and on beneficial animals such as earthworms and bees. Clothianidin is moderately to practically non-toxic to birds and mammals. It is practically non-toxic to fish and the aquatic invertebrate *Daphnia magna* but it has very high toxicity to chironomid (midge) larvae in water. Imidacloprid is moderately toxic to mammals and moderately to highly toxic to birds. It is practically non-toxic to fish and moderately to practically non-toxic to the aquatic invertebrate *Daphnia magna* but it is very highly toxic to aquatic insects. Clothianidin, imidacloprid and Poncho Plus are considered highly toxic to bees, however when applied as a seed treatment extensive studies have demonstrated that the product will not harm bee colonies when label instructions are followed. Please refer to instructions regarding protection of bees below.



# Precautions

When treated seed is stored it should be kept apart from other grain and the bags or other containers should be clearly marked to indicate the contents have been treated with this product. Do NOT allow seed treated with this product to contaminate seed intended for human consumption. Do NOT use treated seed for human or animal consumption. Bags which have held treated seed are not to be used for any other purpose.

## Re-handling

Do not allow re-handling of treated seed unless wearing cotton overalls, over normal clothing, buttoned to the neck and wrist and chemical resistant gloves. Clothing must be laundered after each day's use.

## Protection of livestock

Seed treated with this product must not be used for animal consumption or poultry feed or mixed with animal feed. Do NOT allow seed treated with this product to contaminate seed intended for animal consumption.

## Protection of wildlife, fish, crustaceans and environment

Very toxic to aquatic life. DO NOT contaminate ponds, waterways and drains with this product, used containers or bags which have held treated seed. DO NOT feed treated seed or otherwise expose to wild or domestic birds. Any spillages of treated seed, however minor, must be cleaned up immediately, preferably by recovery and re-use. If disposal is required, ensure treated seed are thoroughly buried and not accessible to birds and other wildlife.

## Protection of bees and other insect pollinators

This product is highly toxic to bees. Pollinators can be exposed to treated seed dust when it is carried by air or when it is deposited onto flowering crops, flowering weeds or water. Very dry and windy conditions can favour dust transport. For planters that discharge dust into the air, including those using pneumatic vacuum seed metering devices, deflector equipment should be installed to reduce emission of dust and the potential for off-field deposit of dust onto flowering crops or flowering weeds. For planters that discharge dust into the air, DO NOT perform seeding operations under very dry or windy conditions.

## Storage and disposal product and original container

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. The method of disposal of the container depends on the container type. Read the STORAGE AND DISPOSAL instructions on the label that is attached to the container.

## Storage of treated seed

Do not store treated seed near foodstuffs or where likely to prove hazardous to humans or animals. If the seed is not used immediately after treatment it should be stored in a dry, well ventilated place. Although Poncho Plus has no effect on the viability of treated seed, subsequent germination can be adversely affected by poor storage conditions such as high moisture combined with high temperatures. No liability can therefore be accepted for the performance of stored treated seed.

## Mixing and seed treatment

Prior to pouring, shake container vigorously, then add the required quantity of Poncho Plus to sufficient water to give even coverage of the seed to be treated. Place seed in mixing equipment and rotate. Mix Poncho Plus with sufficient water to give even coverage of seed and spray onto seed. The quantity of water used for mixing will vary depending on type of equipment and type of seed, refer to Bayer for specific treatment information. Store treated seed under cover in cool, dry conditions. Do not treat seed with poor viability. Do not store treated seed near foodstuffs or where likely to prove hazardous to humans or animals. Do not carry over maize, sorghum, sunflower or sweet corn seed from one season to the next season. The insecticidal activity of Poncho Plus on the seed is maintained for a minimum of 12 – 18 months.

**Flow rate:** Poncho Plus treatment may slow flow rate of seed. Check flow rate of seed through sowing machinery before sowing to ensure the desired seeding rate is achieved.

**Seed quality:** Poncho Plus seed treatment should be used only on high quality seed which meets or exceeds accepted seed quality parameters. Treating with Poncho Plus as directed may raise the moisture level of the seed by up to 1.5%, depending on conditions at treatment. The use of Poncho Plus mixed with water at recommended rates will have no effect on the storage life of treated sound seed.

## **Safety directions**

Harmful if swallowed. Harmful if inhaled. Avoid contact with skin. Do not inhale. When preparing the product for use and using the product, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat and elbow-length chemical resistant gloves. If product on skin, immediately wash area with soap and water. Wash hands after use. After each day's use wash gloves and contaminated clothing.

## **First aid**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone: 13 11 26.

## **Safety data sheet**

Additional information is listed in the Safety Data Sheet, which can be obtained from **[www.bayercropscience.com.au](http://www.bayercropscience.com.au)**.

## **Exclusion of liability**

This product must be used strictly as directed, and in accordance with all instructions appearing on the label and in other reference material. So far as it is lawfully able to do so, Bayer CropScience Pty. Ltd. accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

# Notes



## INVEST IN SOME SERIOUS SEED CAPITAL, REAP THE REWARDS.

Introducing the Bayer SeedGrowth® System – a highly innovative range of equipment, products and services from the leaders in on-seed applications, enabling you to tailor a protection and enhancement program for your crops, using the very latest technology from Bayer. Whether you choose just one component or make use of all Bayer SeedGrowth has to offer, you'll be enhancing the health of your crops and protecting your most valuable asset.

- **Services** to support, train and advise agribusinesses
- **Equipment** to apply the latest innovative treatments
- **Products** to protect your crops from pests and disease
- **Coatings** to repel dust, improve seed flow and placement



**Bayer SeedGrowth®**

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