

POISON

KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING



Plemax[®]

Insecticide

ACTIVE CONSTITUENTS: **(A) 80 g/L NOVALURON**
320 g/L INDOXACARB (75:25)
(equivalent to 240 g/L active S-isomer)

(B) 80 g/L NOVALURON
267 g/L INDOXACARB (90:10)
(equivalent to 240 g/L active S-isomer)

GROUP	15	22A	INSECTICIDE
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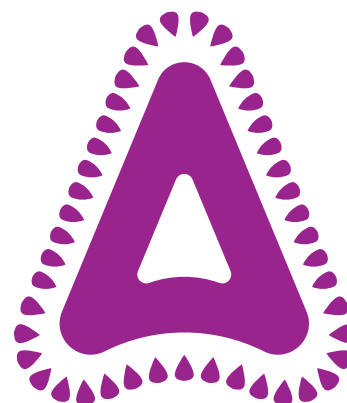
CROPS: Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Eggplant, Leafy vegetables (Chicory, Cress, Endive, Fennel, Kale, Lettuce, Mustard, Silver Beet, Spinach, Bok Choy, Choy Sum and Chinese Cabbage), Peppers (Capsicum and Chilli) and Tomatoes (Trellis and Field)

CONTROLS: Cabbage Cluster Caterpillar, Cabbage White Butterfly, Centre Grub, Cluster Caterpillar, Cotton Bollworm, Diamondback Moth, Native Budworm, Potato Moth as per the Directions for Use

Formulation type

Suspension
Concentrate

SC



ADAMA

adama.com

CONTENTS: 1 – 1000 L

DIRECTIONS FOR USE

RESTRAINTS

DO NOT apply if heavy rains or storms that are likely to cause runoff from treated fields are forecast within 3 days.
DO NOT irrigate to the point of runoff from treated fields for at least 3 days after application.
DO NOT apply by aircraft.

For PROFESSIONAL use only.

DO NOT apply by spraying equipment carried on the back of the user.

ENSURE YOU READ THE PROTECTION STATEMENTS BEFORE APPLYING THE PRODUCT.

BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, EGGPLANT, LEAFY VEGETABLES, PEPPERS (CAPSICUM AND CHILLI) AND TOMATOES:

DO NOT use on container, hydroponic, greenhouse or glasshouse grown crops unless indicated in the directions for use table.
DO NOT apply by vertical sprayers.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The advisory buffer zones in the buffer zone table below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 km/h as measured at the application site during the time of application.

DO NOT apply if there are surface temperature inversion conditions present at the application site during the time of application. These conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets are not smaller than a MEDIUM spray droplet size category in vegetable situations.
- Minimum distances between the application site and downwind sensitive areas are observed (see the following table titled 'Buffer zones for boom sprayers').

Buffer zones for boom sprayers

Situation	Application rate	Boom height above the target canopy	Mandatory downwind buffer zones				
			Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Vegetables	Up to 300 mL/ha	0.5 m or lower	0 metres	70 metres	0 metres	0 metres	70 metres
		1.0 m or lower		210 metres	10 metres		325 metres
	200 mL/ha	0.5 m or lower		50 metres	0 metres		40 metres
		1.0 m or lower		140 metres	10 metres		170 metres

CROP	PEST	RATE	CRITICAL COMMENTS
Broccoli, Brussels Sprouts, Cabbage (closed head varieties only), Cauliflower	Cabbage White Butterfly (<i>Pieris rapae</i>), Cotton Bollworm (<i>Helicoverpa armigera</i>), Native Budworm (<i>H. punctigera</i>)	200 mL/ha	For all crops Regularly monitor crops and target sprays against eggs and newly hatched larvae before they become entrenched.
	Cabbage cluster caterpillar (<i>Crociodolomia pavonana</i>), Centre Grub (<i>Hellula hydralis</i>), Cluster Caterpillar (<i>Spodoptera litura</i>), Diamondback Moth (<i>Plutella xylostella</i>)	200 to 300 mL/ha	Apply up to three applications of PLEMAX® per crop. Use a minimum spray interval of seven (7) days between applications. Thorough coverage is essential. Adjust water volumes to crop stage (200-1000 L/ha). Refer to Surfactant/Wetting agent section. Cabbage cluster caterpillar, Centre grub, Cluster caterpillar and Diamondback moth
Leafy Vegetables: Chicory, Cress, Endive, Fennel, Kale, Lettuce (closed head and leafy varieties), Mustard, Silver Beet, Spinach and Chinese Leafy Vegetables: Bok Choy, Choy Sum, Chinese Cabbage	Cabbage White Butterfly (<i>Pieris rapae</i>), Cotton Bollworm (<i>Helicoverpa armigera</i>), Native Budworm (<i>H. punctigera</i>), Cabbage cluster caterpillar (<i>Crociodolomia pavonana</i>), Centre Grub (<i>Hellula hydralis</i>), Cluster Caterpillar (<i>Spodoptera litura</i>), Diamondback Moth (<i>Plutella xylostella</i>)	200 mL/ha	Use the higher rate under higher pressure and for longer residual control. For Cabbage Centre Grub, time sprays early to ensure larvae are exposed to treatment before they become entrenched in protected feeding sites. Eggplant, Peppers (Capsicum and Chilli), Tomato (Trellis and Field) Use the higher rate during periods of higher <i>Helicoverpa</i> spp. pressure for longer residual control. Resistance management
	Cotton Bollworm (<i>Helicoverpa armigera</i>), Native Budworm (<i>H. punctigera</i>)	200 to 300 mL/ha or 20 mL/100 L dilute	DO NOT apply more than two (2) consecutive applications of PLEMAX® before rotating to an insecticide from an alternative mode of action.
Eggplant, Peppers (Capsicum and Chilli), Tomato (Trellis and Field)	Potato Moth (Tomato Leaf Miner) (<i>Phthorimaea operculella</i>)	200 mL/ha or 20 mL/100 L dilute	Use of PLEMAX® is subject to a CropLife Australia resistance management strategy for diamondback moth in brassicas. Review the strategy prior to using PLEMAX®. As part of an Insecticide Resistance Management programme for Cotton Bollworm, it is important to plough crops immediately after harvest.

NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

WITHHOLDING PERIODS

Harvest

Broccoli, Brussels Sprouts, Cabbage, Cauliflower:

DO NOT HARVEST FOR 7 DAYS AFTER LAST APPLICATION.

Eggplant, Leafy Vegetables and Chinese Leafy Vegetables, Peppers (Capsicum and Chilli), Tomatoes (Trellis and Field):

DO NOT HARVEST FOR 3 DAYS AFTER LAST APPLICATION.

Grazing

All treated crops:

DO NOT ALLOW LIVESTOCK TO GRAZE CROPS OR VEGETABLE WASTE (EXCEPT TOMATO POMACE) THAT HAS BEEN TREATED WITH PLEMAX® INSECTICIDE.

EXPORT TRADE ADVICE

Maximum residue limits (MRLs) or import tolerances may not exist in all markets for produce treated with PLEMAX®, or livestock that have been fed pomace from crops treated with PLEMAX®. If you are growing produce or grazing livestock destined for export, please consult with your exporter or Adama Australia for the latest information on MRLs and import tolerances.

GENERAL INSTRUCTIONS

PLEMAX® is a co-formulation of an oxadiazine (indoxacarb) and benzoylurea (novaluron) insecticide, formulated as a Suspension Concentrate (SC). The active ingredients in PLEMAX® enter the target pests via:

- Direct contact during application
 - The cuticle as they come into contact with treated foliage, roots or soil
 - Ingestion of treated foliage, roots or soil
- After exposure to a sufficient dose of PLEMAX®, target pests typically cease feeding and die three to five days later.

PLEMAX® should be applied after careful monitoring of pest populations to determine the need for application based on locally determined thresholds and to ensure the correct timing of application.

More than one application of PLEMAX® may be required to control a pest population. Where multiple applications are required, PLEMAX® should be used in rotation with other mode of action insecticides.

PRODUCT USE

Mixing

Always add PLEMAX® to water in tank. DO NOT premix or slurry. Use only clean water.

Half fill the spray tank with water and add the appropriate amount of PLEMAX® directly to the spray tank. Agitate and add other companion products or surfactant, then completely fill the tank with water. Mix thoroughly and continue mechanical or hydraulic agitation. Use the prepared spray immediately. DO NOT store the spray mixture or allow it to sit for a period of time without agitation.

APPLICATION

All crops:

Apply PLEMAX® as per the following crop specific application guidelines. DO NOT apply PLEMAX® using Ultra Low Volume (ULV) methods.

Minimising Spray Drift: The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator must consider all these factors when making application decisions and determining off-target drift risks near the application. A spray drift minimisation strategy should be employed at all times when applying this product.

APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL BUT WILL NOT MINIMISE DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVOURABLE ENVIRONMENTAL CONDITIONS.

Larger droplets may reduce the effects of evaporation.

Surfactant/Wetting Agent

Eggplant, Peppers (Capsicum and Chilli), Leafy Vegetables and Chinese Leafy Vegetables, Tomato:

Use a non-ionic surfactant/wetting agent at 15 g active/100 L (e.g. Agral* 600 or Shirwet* 600 at 25 mL/100 L).

Broccoli, Brussels Sprouts, Cabbage, Cauliflower:

Use a non-ionic surfactant/wetting agent at 75 g active/100 L (e.g. Agral* 600 or Shirwet* 600 at 125 mL/100 L).

DO NOT add a non-ionic surfactant/wetting agent if:

- Mixing with another product which already contains a surfactant and/or the product label advised not to add a surfactant.
- Mixing with a liquid fertiliser.

DO NOT use BS1000* or Activator-90* as it may cause crop phytotoxicity.

Ground Application

Brassicas, leafy vegetables, fruiting vegetables:

PLEMAX® can be applied as a ground application via a boom sprayer.

Ensure thorough spray coverage of foliage. Droplet should be of medium droplet size category. Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. For banded spraying, increase the number of fan nozzles per crop row as the plant size increases.

As per the rate guidelines in can be applied to target crops as a rate per hectare, as a dilute spray or a concentrate spray application (where stated in the directions for use). For dilute and concentrate applications, the following guidelines should be observed:

Dilute Spraying

- Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off.
- The required volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- Add the amount of product specified in the Directions for Use table for each 100 L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (see Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- The mixing rate for concentrate spraying can then be calculated in the following way:

Example only

1. Dilute spray as determined above: For example 1000 L/ha
 2. Your chosen concentrate spray volume: For example 500 L/ha
 3. The concentration factor in this example is 2X (i.e. $1000 \text{ L} \div 500 \text{ L} = 2$)
 4. If the dilute label rate is 20 mL/100 L, then the concentrate rate becomes 2×20 ; that is 40 mL/100 L of concentrate spray.
- The chosen spray volume, the amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows.
 - For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

Spray Equipment Cleanout

Prior to application, start with clean, well maintained application equipment. Immediately following application, thoroughly clean all spray equipment using a specialist cleaning agent such as All Clear® DS Spray Tank Cleaner and Decontaminator, following the product label instructions. Clean all other associated application equipment.

INSECTICIDE RESISTANCE WARNING

For insecticide resistance

management PLEMAX® Insecticide

GROUP 15/22A INSECTICIDE

is a Group 15 and Group 22A insecticide. Some naturally occurring insect biotypes resistant to PLEMAX® and other Group 15 and 22A insecticides may exist through normal genetic variability in any insect population.

The resistant individuals can eventually dominate the insect population if PLEMAX® or other Group 15 and 22A insecticides are used repeatedly. The effectiveness of PLEMAX® on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to detect prior to use, Adama Australia accepts no liability for any losses that may result from the failure of PLEMAX® to control resistant insects. PLEMAX® may be subject to specific resistance management strategies.

To help prevent the development of resistance to PLEMAX®, use PLEMAX® in accordance with the current Insecticide Resistance Management (IRM) Strategy for your region. For further information contact your local supplier, Adama representative or local department agronomist.

COMPATIBILITY

Contact your local Adama Australia representative for information on product compatibility.

PRECAUTION

Re-entry Period

Do not allow entry into treated areas until spray has dried. If prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

INTEGRATED PEST MANAGEMENT

Toxic to beneficial arthropods. DO NOT apply if crop monitoring indicates high levels of parasitism on key pests and economic thresholds have not been reached. If economic thresholds have been exceeded and PLEMAX has been applied, continue to monitor crops for both pests and beneficial arthropods prior to further insecticide applications. Minimise spray drift to reduce harmful effects on beneficial arthropods in non-crop areas.

PROTECTION OF HONEY BEES AND OTHER INSECT POLLINATORS

Highly toxic to bees. Harmful to bee brood. DO NOT apply to crops from the onset of flowering until flowering is complete. DO NOT allow spray drift to flowering weeds or flowering crops in the vicinity of the treatment area. Before spraying, notify beekeepers to move hives to a safe location with an untreated source of nectar and pollen, if there is potential for managed hives to be affected by the spray or spray drift.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. DO NOT contaminate streams, rivers or watercourses with the chemical or used containers.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

Triple-rinse container before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

Drummuster containers: Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced but may be taken separately.

If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

Refillable Containers: Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage. This container remains the property of Adama Australia.

SAFETY DIRECTIONS

May irritate the eyes. Avoid contact with eyes. Do not inhale vapour or spray mist. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist, and elbow-length chemical resistant gloves and goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical resistant gloves. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

FIRST AID

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

SDS

Additional information is listed in the safety data sheet (SDS). A safety data sheet for PLEMAX® Insecticide is available from adama.com or call Customer Service on 1800 423 262.

CONDITIONS OF SALE: The use of PLEMAX® Insecticide being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama Australia, regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Adama Australia accepts no responsibility for any consequence whatsoever from the use of this product.

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