

POISON

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

QUALI-PRO

Twister®

Insecticide

ACTIVE CONSTITUENT:

80 g/L NOVALURON

267 g/L INDOXACARB (90:10)

(equivalent to 240 g/L active S-isomer)

GROUP 15 | 22A INSECTICIDE

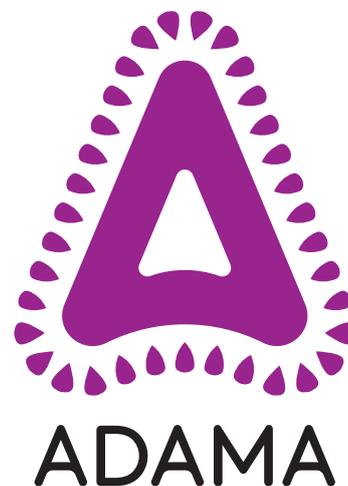
SITUATION: Turf

CONTROLS: African Black Beetle, Argentine Stem Weevil, Billbug, Lepidoptera including Cutworm, Armyworm and Sod Webworm.

Formulation type

Suspension
Concentrate

SC



adama.com

CONTENTS: 1 L - 1000 L

DIRECTIONS FOR USE

RESTRAINTS

DO NOT apply if heavy rains or storms are forecast within 3 days.

DO NOT irrigate to the point of runoff 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.

DO NOT allow children up to 2 years of age to enter treated recreational turf areas for 9 days after application (does not apply to recreational turf areas where access for children is already restricted).

ENSURE YOU READ THE PROTECTION STATEMENTS BEFORE APPLYING THE PRODUCT.

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 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 14 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:

- Sprayer droplets are not smaller than an ULTRA COARSE spray droplet size category.
- 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
Turf	Up to 300 mL/ha	0.5 m or lower	0 meters	70 metres	0 meters	0 meters	70 metres
	3 L/ha	0.5 m or lower	0 meters	70 metres	0 meters	0 meters	90 metres

CROP	PEST	RATE	CRITICAL COMMENTS
Turf (including Golf Courses, Sports Fields, and other sport and recreational turf areas)	Argentine Stem Weevil (<i>Listronotus bonariensis</i>)	3 L/ha	<p>Monitor adult activity through spring and early summer. Spray when peak numbers are observed or when first visual symptoms appear typically around late September to January. Early application is essential to minimise damage to turf due to feeding.</p> <p>Apply up to three applications of QUALI-PRO® TWISTER® per season.</p> <p>QUALI-PRO® TWISTER® has not been tested on all turf species. For sensitive turf species, e.g. Buffalo, it is recommended that small areas be tested for turf safety before large-scale application occurs.</p>
	Billbug (La Plata Weevil) (<i>Sphenophorus brunnipennis</i>), African Black Beetle (<i>Heteronychus arator</i>)	3 L/ha	<p>Apply up to three applications of QUALI-PRO® TWISTER® per season. QUALI-PRO® TWISTER® is relatively slow-acting against soil insect pests of turf. As such, monitoring of turf for several months following application is recommended.</p> <p>Preferably spray onto wet or dewy turf. Irrigate with at least 3 mm of water commencing within 1 hour of application. DO NOT irrigate to the point of runoff. To maximise performance, apply QUALI-PRO® TWISTER® in combination with a credible soil surfactant.</p> <p>Billbug: Monitor adult activity through late spring and early summer. Spray when numbers peak or when small larvae (4 mm) are found in the thatch or surface soil typically around late November to early December. Early application is essential to minimise damage to turf due to feeding. Ensure product placement as close to soil surface as possible.</p> <p>African Black Beetle: Apply at peak egg hatch (African Black Beetle – late September through to mid-November), or when small larvae are present. Ensure product placement as close to soil surface as possible.</p> <p>Note: QUALI-PRO® TWISTER® has not been tested on all turf species. For sensitive turf species, e.g. Buffalo, it is recommended that small areas be tested for turf safety before large-scale application occurs.</p>
	Lepidoptera including Cutworm (<i>Agrotis</i> spp.), Armyworm (<i>Spodoptera</i> spp.), Sod Webworm (<i>Herpetogramma licarsialis</i>)	200 - 300 mL/ha	<p>Apply as soon as pest activity is noted.</p> <p>To ensure optimal control, delay watering (irrigation) or mowing for 24 hours after application. Apply in sufficient volume to ensure thorough coverage.</p> <p>Use higher rate when conditions favour high pest pressure.</p>

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

WITHHOLDING PERIODS

DO NOT GRAZE TREATED TURF OR LAWN; OR FEED TURF OR LAWN CLIPPINGS FROM ANY TREATED AREA TO POULTRY OR LIVESTOCK.

GENERAL INSTRUCTIONS

QUALI-PRO® TWISTER® is a co-formulation of an oxadiazine (indoxacarb) and benzoylurea (novaluron) insecticide, formulated as a Suspension Concentrate (SC). The active ingredients in QUALI-PRO® TWISTER® 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 QUALI-PRO® TWISTER®, target pests typically cease feeding and die three to five days later. QUALI-PRO® TWISTER® 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 QUALI-PRO® TWISTER® may be required to control a pest population. Where multiple applications are required, QUALI-PRO® TWISTER® should be used in rotation with other mode of action insecticides.

PRODUCT USE

Mixing

Always add QUALI-PRO® TWISTER® 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 QUALI-PRO® TWISTER® 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

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.

Apply in a minimum spray volume of 400 L/ha and ensure thorough coverage. With most nozzle types, narrower spray angles produce larger droplets. When targeting Billbug or African Black Beetle, apply QUALI-PRO® TWISTER® onto wet or dewy turf. Irrigate with at least 3 mm of water commencing within 1 hour of application. QUALI-PRO® TWISTER® is relatively slow-acting against soil insect pests of turf. As such, monitoring of turf for several months following application is recommended. DO NOT irrigate to the point of runoff. To maximise performance, it is recommended that QUALI-PRO® TWISTER® be applied in combination with credible soil surfactant. QUALI-PRO® TWISTER® has not been tested on all turf species. For sensitive turf species, e.g. Buffalo, it is recommended that small areas be tested for turf safety before large-scale application occurs. Contact Adama Australia for more information.

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 QUALI-PRO®

GROUP 15 22A INSECTICIDE

TWISTER® Insecticide is a Group 15 and Group 22A insecticide. Some naturally occurring insect biotypes resistant to QUALI-PRO® TWISTER® 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 QUALI-PRO® TWISTER® or other Group 15 and 22A insecticides are used repeatedly. The effectiveness of QUALI-PRO® TWISTER® 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 QUALI-PRO® TWISTER® to control resistant insects. QUALI-PRO® TWISTER® may be subject to specific resistance management strategies.

To help prevent the development of resistance to QUALI-PRO® TWISTER®, use QUALI-PRO® TWISTER® 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 QUALI-PRO® TWISTER® 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

1L: Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Triple-rinse containers 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 QUALI-PRO® TWISTER® Insecticide is available from adama.com or call Customer Service on 1800 423 262.

CONDITIONS OF SALE: The use of QUALI-PRO® TWISTER® 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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