



Curatol 120SC

Insecticide

Specialist Weevil Control for Turf Professionals

Product Overview

ProForce Curatol 120SC Insecticide is a specialist insecticide formulated for effective control of Argentine Stem Weevil (*Listronotus bonariensis*) in a wide range of turfgrass situations.

ProForce Curatol 120SC Insecticide contains 120 g/L Spinosad, formulated as a suspension concentrate (SC) for reliable and even application.

ProForce Curatol 120SC Insecticide represents a new mode of action for Argentine Stem Weevil control in the Australian turfgrass market.

ProForce Curatol 120SC Insecticide acts via both contact and ingestion, disrupting the insect nervous system and leading to feeding cessation, paralysis, and death. It has known activity on both adults and larval stages of Weevil insects.

Key Features

- > Targeted activity against Argentine Stem Weevil larvae and adults.
- > Quick knockdown (within 3 days) and effective residual control (up to 4 weeks).
- > New active ingredient and mode of action group for turfgrass in Australia.
- > Excellent rotational option in an insecticide program targeting Argentine Stem Weevil.
- > Low odour, easy to use Suspension Concentrate formulation.
- > Non-scheduled chemistry. Low toxicity to mammals, birds, fish and crustacea.
- > Low environmental impact – derived from fermentation of a naturally occurring micro-organism.
- > Minimal effect on beneficial insects when used as directed (Ideal for IPM programs).
- > Rainfast once dry (typically within 2 hours under normal conditions). Exhibits translaminar activity.

Mode of Action

GROUP 5 INSECTICIDE

Spinosad acts primarily through ingestion, but also works via contact activity. Once ingested or absorbed, it affects the insect's nervous system in the following way:

1. Targets nicotinic acetylcholine receptors (nAChRs) – Spinosad binds to these receptors, causing continuous nerve stimulation.
2. Also affects GABA receptors – This adds to the disruption of normal nerve function.
3. Result – The insect becomes hyperexcited, leading to paralysis, feeding cessation, and eventual death (usually within 1-2 days).

Spinosad is most active against the larval stages of insects. Larvae ingest treated plant material or soil, or come into direct contact with the active ingredient. Spinosad has contact activity, but it is far more potent when ingested. Exposed insects stop feeding almost immediately but may take up to three (3) days to die.

Adult weevil control with Spinosad depends on feeding behavior and contact exposure time.

Spinosad does exhibit translaminar properties. Adding a surfactant to the spinosad solution can help it penetrate leaf tissues more effectively.

Origins of Spinosad

Spinosad was discovered in 1982 by scientists at Eli Lilly and Company. It was isolated from a rare, naturally occurring soil bacterium called *Saccharopolyspora spinosa*.

This bacterium was found in an old abandoned rum distillery on Hispaniola, an island in the Caribbean. It produces a family of compounds called spinosyns, which are secondary metabolites with potent insecticidal properties.

Spinosad is composed primarily of two spinosyns: Spinosyn A (about 85%) & Spinosyn D (about 15%).

From a commercial product point of view, Spinosad is produced by fermenting *S. spinosa* in a controlled environment. The spinosyns are harvested, refined, and formulated to make the insecticidal products which are present in ProForce Curatol 120SC Insecticide.

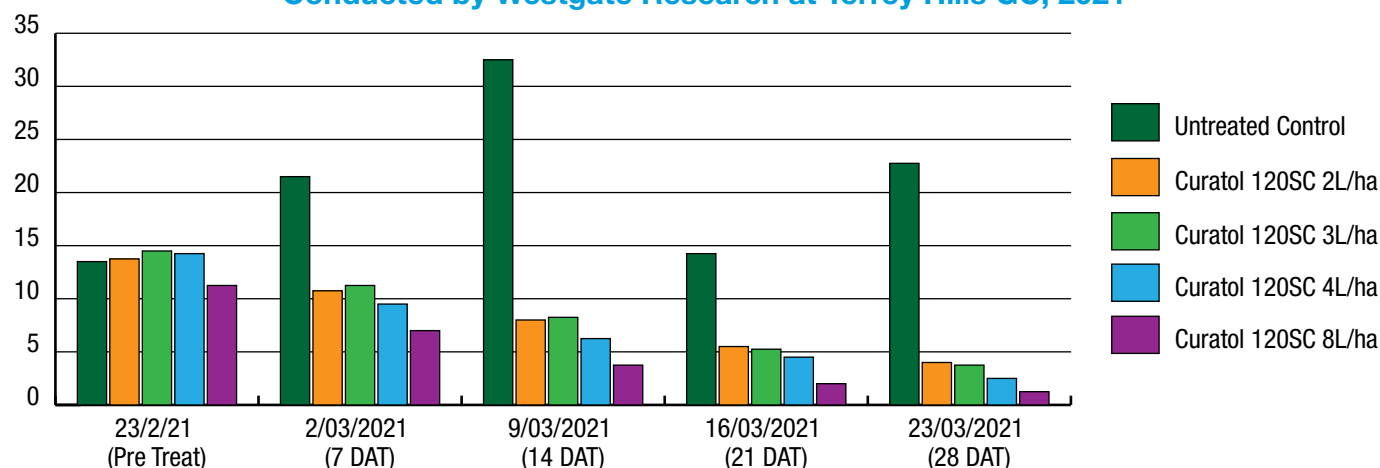


Curatol 120SC Insecticide – Use Rates & Label Recommendations

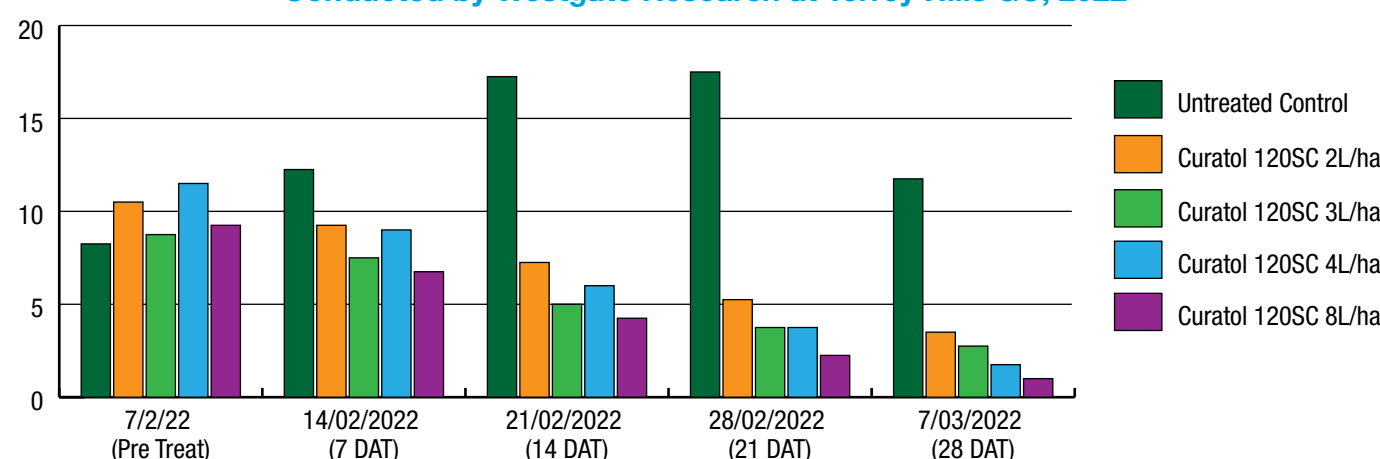
SITUATION	PEST	RATE	CRITICAL COMMENTS
Turf (including Golf Courses, Sports Fields and other sport and recreational turf areas)	Argentine Stem Weevil (<i>Listronotus bonariensis</i>)	4 L/ha	Monitor adult activity through spring and early summer. Spray when peak numbers are observed or when first visual symptoms appear typically around late September to January. Early application is essential to minimise damage to turf due to feeding. Apply up to three applications of ProForce Curatol 120SC Insecticide per season.



Argentine Stem Weevil Larvae Populations following treatment with Curatol 120SC Insecticide – Conducted by Westgate Research at Terrey Hills GC, 2021



Argentine Stem Weevil Larvae Populations following treatment with Curatol 120SC Insecticide – Conducted by Westgate Research at Terrey Hills GC, 2022



Argentine Stem Weevil Lifecycle Overview

1. Egg Stage

- Laid by adults inside the leaf sheaths or stems of grass plants.
- Eggs are tiny, white to cream-coloured and difficult to detect.
- Duration: 4-10 days depending on temperature.

2. Larval Stage (Damaging Stage)

- 3 larval instars, all feed internally within the stem, crown, or tillers.
- Feed by tunnelling inside the stem, disrupting water and nutrient flow.
- Damage includes:
 - o Wilting, Yellowing
 - o Turf thinning, Plant death
- Duration: 2-3 weeks.

3. Pupal Stage

- Mature larvae drop to the soil or thatch layer to pupate.
- Pupa is inactive but visible.
- Duration: 5-10 days.

4. Adult Stage

- Small, dark weevils (2.5-3 mm long).
- Emerge from pupae and feed on leaf blades, causing minor "windowing" or notching.
- After feeding, they mate and lay eggs, restarting the cycle.
- Adults are active flyers, especially in warm weather.
- Duration: Up to several weeks.

ProForce®
Curatol 120SC
Insecticide



Maximising performance

- > Apply by ground boom sprayer, low pressure hand wand or hand gun sprayer. To be effective Curatol 120SC requires thorough spray coverage. Ensure that equipment is properly calibrated to give an even distribution at the correct volume. Application volume should be adequate to ensure thorough and even coverage of turf leaves with penetration into the crowns. Total application volume should be 400 to 800 L/ha.
Use coarse droplets (e.g. Air Induction flat fan 025 to 04 nozzles). In higher cut turf (>15 mm) a significant spray shielding effect can occur, impacting negatively on spray penetration and even coverage at low application volumes.
- > Rotate with insecticides from different IRAC groups to prevent resistance development.
- > Repeat applications will often be required to catch overlapping generations.
- > Avoid spraying during peak pollinator activity. Once the spray deposit has dried, foraging bees will not be affected by Curatol 120SC Insecticide.
- > Irrigation: Light irrigation post-application (2-3 mm) can assist soil movement where larvae are active near the crown.
- > Mowing: Avoid mowing 24 hours before or after application to retain maximum residue on turf.
- > Monitoring: Use visual inspection (soapy water drench), vacuum sampling, or pitfall traps to track adult activity and time applications.
- > Application Timing: **Preventive**: Apply at the onset of adult weevil activity in spring or early summer. **Curative**: Apply at peak adult activity or when early larval feeding is detected.
- > Agitate or shake the container immediately prior to use. Half fill the spray tank with water, add the appropriate amount of accurately measured Curatol 120SC, then complete filling the tank. Ensure thorough agitation by mechanical or hydraulic action at all times during mixing and application. Use only clean water within the pH range of 5-9.

About Us

Indigo Specialty Products is a privately-owned business, formed and owned by a small team of industry professionals with extensive experience in manufacture, distribution, development and product registration. We are a business focused on production & supply of plant protection, pest control, plant nutrition, soil, water management & biological products. Specialising in Australasian non-crop and niche horticultural markets, including Turf & Amenity, Nursery Production, Industrial Vegetation Management, Forestry, Pest Control and Consumer Home Garden & Pest Management.



Formulated in Australia

Our goal is to manufacture the Indigo product ranges in Australia as much as possible, where we can oversee product quality processes, whilst allowing us the flexibility to modify products to overcome ever changing challenges. Our ProForce and HydroForce range of products are formulated in Australia using imported materials. Our Xcel Fertiliser and BioForce Biological range are manufactured in Australia to the highest possible standards.



Developed & Researched for local conditions

We are heavily focused on local research and development to ensure our products perform at their peak in the Australian markets. We actively invest in field trial research programs and modify our formulations to match the local conditions of the key markets in which we operate to maximise performance.



Focused on Specialty markets

We strive to be relevant in our core markets, by adding value via overcoming issues and obstacles that are present in the markets we operate within. We do this by focusing on control of key pests or diseases or by solving key management issues that our valued end user customers have. We also strive to be active in the core markets in which we operate by working closely with our allied distributor network, offering support, service and advice where required.



Diagnostic Services

We offer a complete diagnostic services package, known as TechForce, designed to evaluate and identify key agronomic problems, so we can be better informed in recommending products for the specific situation. We also believe that by offering these services, our customers and users of our products can evaluate performance of the portfolio in a quantifiable and scientific approach. We use some of Australia's leading laboratories in delivering results for our services including Westgate Laboratories, Tweed Laboratories and the Department of Primary Industries, Orange.

ProForce™ is a trademark of Indigo Specialty Products Pty Ltd

©JULY 2025