

# POISON

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



**SENATOR<sup>®</sup> 600**   
**RED** FLOWABLE SEED TREATMENT

The banner features a blue background with a wavy, fabric-like texture. A red horizontal bar contains the text 'SENATOR<sup>®</sup> 600' in white, with a white star icon to the right of the '0'. Below this bar, the word 'RED' is written in a large, stylized red font, followed by 'FLOWABLE SEED TREATMENT' in a smaller, white, sans-serif font. Several red star icons are scattered around the text.

**ACTIVE CONSTITUENT:**  
**600 g/L IMIDACLOPRID**

**GROUP 4A INSECTICIDE**

Seed treatment for the control of various soil and foliar pests in a range of field crops and the prevention of spread of barley yellow dwarf virus in cereal crops and for protection against insect pests of stored cereal seed grain as specified in the Directions for Use table.



**Nufarm**

Grow a better tomorrow.

**DIRECTIONS FOR USE**

CROP	PEST	STATE	CRITICAL COMMENTS
Cotton	Thrips	580 mL, 875 mL or 1.17 L/100 kg of seed	Thrip damage is dependent upon thrips infesting cotton seedlings and the subsequent growth rate of the plants. Choose a higher rate if high thrip pressure is expected (e.g. winter cereals and weeds supporting thrips) and/or cotton seedlings are expected to experience slow growth (e.g. cool weather from early planting or sown in shorter season districts). The mid-rate is considered a general rate for normal conditions.
	Brown flea beetle		When applied for thrip control, these rates will also reduce damage to cotyledons caused by brown flea beetle.
	Aphids	875 mL or 1.17 L/100 kg of seed	When applied for thrip control, these rates will also control early season aphids.
	Wireworms		Use the higher rate for increased length of control.
Maize, Sorghum, Sunflower, Sweet corn	Sugarcane wireworm ( <i>Agrypnus variabilis</i> ), Eastern false wireworm ( <i>Pterohelaeus darlingensis</i> ), Striate false wireworm ( <i>Pterohelaeus alternatus</i> ), Southern false wireworm ( <i>Gonocephalum macleayi</i> ), Black field earwig ( <i>Nala lividipes</i> ), Wingless cockroach ( <i>Cosmozosteria</i> spp., <i>Calolampira elegans</i> , <i>C. solida</i> ), Field cricket ( <i>Teleogryllus commodus</i> ), Black sunflower scarab ( <i>Pseudoheteronyx basicollis</i> )	Maize: 1.4 mL/1000 seeds  Sorghum, Sunflower, Sweetcorn: 430 mL /100 kg of seed	Apply only to high quality seed. Ensure thorough coverage of seed.  See <b>General Instructions</b> for how to treat seed.
Canola	Aphids	400 mL/100 kg of seed	SENATOR 600 Red will protect canola seedlings from early season aphid damage.
Forage and seed pasture, e.g. grasses such as ryegrass, fescue and phalaris; Clovers such as subterranean, white, red and strawberry; Medics; Lucerne	Redlegged earth mite, Blue oat mite		SENATOR 600 Red will protect emerging seedlings for 3-4 weeks after sowing. Crops must be monitored in the first 4 weeks of emergence to ensure SENATOR 600 Red performance.  <b>For autumn sowing:</b> After a pasture phase sow SENATOR 600 Red treated seed following a well timed spring spray (prior to the development of diapause eggs) of Le-mat* 290 SL Insecticide.  After a cropping phase a spring spray is not usually required, however if monitoring in spring finds moderate mite populations, a spring spray should be applied.  <b>For spring sowing:</b> After a pasture phase apply a spray of Le-mat prior to sowing SENATOR 600 Red treated seed.
	Forage brassicas (kale, turnips, rape and swedes)	300 mL/100 kg of seed	SENATOR 600 Red does not affect the viability of Rhizobia when SENATOR 600 Red is mixed with inoculant and seed is sown immediately into a moist soil.
	Lupins		
Cereals	Feeding damage caused by wheat aphid and corn aphid	120 or 240 mL/100 kg of seed	Use higher rate for increased length of control and in areas of high risk.
	Spread of barley yellow dwarf virus		In high risk areas with over 500 mm rain or moderate risk areas with over 400 mm rain in seasons following summer rains, a synthetic pyrethroid top-up spray should be applied 7-8 weeks after sowing.
	<b>Protection against insect pests of stored grain:</b> Indian meal moth ( <i>Plodia interpunctella</i> ), Psocids ( <i>Liposcelis bostrychophila</i> , <i>L. entomophila</i> , <i>L. decolor</i> and <i>L. paeta</i> ), Granary weevil ( <i>Sitophilus granarius</i> ), Lesser grain borer ( <i>Rhyzopertha dominica</i> ), Rice weevil ( <i>Sitophilus oryzae</i> ), Rust red flour beetle ( <i>Tribolium castaneum</i> ), Saw tooth flour beetle ( <i>Oryzaephilus surinamensis</i> ), Flat grain beetle ( <i>Cryptolestes ferrugineus</i> )	120 mL/100 kg of seed	When used for treatment of seed for infield control of cereal aphids in cereal crops (as above), SENATOR 600 Red will provide protection against damage from these storage pests for at least 6 months after treatment in storage.

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

**WITHHOLDING PERIODS****Harvest:**

**Cotton and food producing crops: NOT REQUIRED WHEN USED AS DIRECTED**

**Grazing:**

**Maize, sorghum or sweet corn plants grown from treated seed: DO NOT GRAZE OR CUT FOR STOCK FOOD WITHIN 4 WEEKS OF SOWING**  
**Canola, forage brassicas and pastures grown from treated seed: DO NOT GRAZE OR CUT FOR STOCK FOOD WITHIN 6 WEEKS OF SOWING**  
**Lupin plants grown from treated seed: DO NOT GRAZE OR CUT FOR STOCK FOOD WITHIN 16 WEEKS OF SOWING**  
**Cereal plants grown from treated seed: DO NOT GRAZE OR CUT FOR STOCK FOOD WITHIN 9 WEEKS OF SOWING**

**GENERAL INSTRUCTIONS****COTTON****Mixing and seed treatment**

Prior to pouring or pumping SENATOR 600 Red from the container, either shake container vigorously or operate pump by-pass to ensure thorough mixing of the contents. Flowable formulations will settle over time. Add most of the water into the mixing vat followed by flowable fungicides (e.g. quintozene), coating agents (e.g. Peridiam\*, Nacret\*) and SENATOR 600 Red and stir until homogeneous. Then add the emulsifiable liquid fungicide (e.g. Apron\* 200SL i.e. metalaxyl-M) slowly whilst stirring. Calibrate commercial seed dressing equipment to ensure the seed throughput is mixed with the correct dose of slurry seed dressing. Ensure the seed dressing mixture is applied to the maximum number of seeds when initially applied to the seed. Retain seed in mixing chamber until coverage on seed is good. 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.

**FORAGE AND SEED PASTURE, CANOLA, FORAGE BRASSICAS, LUPIN, SUMMER CROPS****Mixing and seed treatment**

Prior to pouring, shake container vigorously, then add the required quantity of SENATOR 600 Red to sufficient water to give even coverage of the seed to be treated. Place seed in mixing equipment and rotate. Mix SENATOR 600 Red with sufficient water to give even coverage of seed and spray onto seed. For small seeds, apply a total volume of SENATOR 600 Red plus water of 1.5L/100 kg seed. For large seeds, apply a total volume of SENATOR 600 Red plus water of 500mL/100kg seed. Continue rotation until all liquid is distributed on seed. 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 SENATOR 600 Red on the seeds is maintained for a minimum of two seasons.

**Flow rate:** SENATOR 600 Red treated seed may slow flow rate of seed. Check flow rate of seed through sowing machinery before sowing to ensure the desired seeding rate is achieved.

**CEREAL CROPS****Mixing and seed treatment**

Prior to pouring, shake container vigorously, then add the required quantity of SENATOR 600 Red to sufficient water to give even coverage of the cereal seed to be treated. The quantity of water used for mixing will vary depending on type of equipment and quality of seed. Use a minimum of 400 mL of mixture (i.e. SENATOR 600 Red plus water) with each 100 kg of seed. Do not use more than 600mL of mixture (product + water) with each 100 kg of seed. Whatever dilution is used it is essential that 120 mL (or 240 mL) of SENATOR 600 Red is applied/100 kg seed. The mixture should be gently stirred regularly.

**Seed quality**

SENATOR 600 Red seed treatment should not be used on seed with more than 12% moisture content, or on sprung, sprouted, damaged or severely pinched seed, or seed of poor viability. If in doubt, have a germination test carried out on the seed before treatment to ensure that it is of acceptable standard. Treating with SENATOR 600 Red as directed may raise the moisture level of the seed by up to 0.6%, depending on conditions at treatment. The use of SENATOR 600 Red mixed with water at recommended rates will have no effect on the storage life of treated sound seed.

**COMPATIBILITY**

SENATOR 600 Red is compatible with flowable seed treatment formulations of triadimenol + cypermethrin and tebuconazole + cypermethrin for use on cereal seeds. Do not use more than 600mL of total mixture/100 kg seed (i.e. SENATOR 600 Red plus other products plus water). SENATOR 600 Red is compatible with triadimenol + cypermethrin flowable seed treatments for use on cotton seed.

**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 SENATOR 600 Red 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.

**INSECTICIDE RESISTANCE WARNING**

<b>GROUP</b>	<b>4A</b>	<b>INSECTICIDE</b>
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For insecticide resistance management, Senator 600 Red Flowable Seed Treatment is a Group 4A insecticide. Some naturally occurring insect biotypes resistant to SENATOR 600 Red and other Group 4A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if SENATOR 600 Red or other Group 4A insecticides are used repeatedly. The effectiveness of SENATOR 600 Red on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Nufarm Australia Limited accepts no liability for any losses that may result from the failure of SENATOR 600 Red to control resistant insects. SENATOR 600 Red may be subject to specific resistance management strategies. For further information contact your local supplier, Nufarm Australia Limited representative or local agricultural department agronomist.

**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 consumption. Bags which have held treated seed are not to be used for any other purpose.

**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**

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 seeds are thoroughly buried and not accessible to birds and other wildlife

#### **STORAGE AND DISPOSAL**

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

##### **Non-refillable containers**

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.

##### **Refillable containers**

Empty contents fully into mixing equipment. Close all valves and return to point of supply for refill or storage.

#### **SAFETY DIRECTIONS**

Harmful if swallowed. May irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When opening the container and using the product, wear elbow-length PVC gloves. Wash hands after use. After each day's use, wash gloves.

#### **FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126, New Zealand 0800 764 766.

#### **ADDITIONAL STATEMENTS (WHS REGULATIONS 2011)**

Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, clothing, eye and face protection. IF SWALLOWED: Rinse mouth.

#### **SAFETY DATA SHEET**

For further information refer to the Safety Data Sheet (SDS) which can be obtained from your supplier or from the Nufarm website – [nufarm.com.au](http://nufarm.com.au)

**In case of emergency: Phone 1800 033 498.** Ask for shift supervisor. Toll free 24 hours.

#### **CONDITIONS OF SALE**

"Any provisions or rights under the Competition and Consumer Act 2010 or relevant state legislation which cannot be excluded by those statutes or by law are not intended to be excluded by these conditions of sale. Subject to the foregoing, all warranties, conditions, rights and remedies, expressed or implied under common law, statute or otherwise, in relation to the sale, supply, use or application of this product, are excluded. Nufarm Australia Limited and/or its affiliates ("Nufarm") shall not accept any liability whatsoever (including consequential loss), or howsoever arising (including negligence) for any damage, injury or death connected with the sale, supply, use or application of this product except for liability which cannot be excluded by statute."

Nufarm Australia Limited  
ACN 004 377 780  
103-105 Pipe Road  
Laverton North Victoria 3026  
Tel: (03) 9282 1000  
[nufarm.com.au](http://nufarm.com.au)

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