

Product Name: Smart Clethodim 360EC Herbicide
APVMA Approval No: 95504/145888



Label Name:	Smart Clethodim 360EC Herbicide
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	ACTIVE CONSTITUENT: 360 g/L CLETHODIM SOLVENT: 570 g/L LIQUID HYDROCARBON
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Mode of Action:	GROUP 1 HERBICIDE
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Statement of Claims:	For the control of certain grass weeds in beetroot, cabbage, canola, celery, cotton, forestry, lettuce, non-bearing fruit trees, onions, ornamentals, peanuts, pulses (including adzuki beans, broad beans, chickpeas, faba beans, field peas, lentils, lupins and mung beans), potatoes, soybeans and pasture legume (lucerne, clover and medic) seed crops (and pastures) according to the Directions for Use table.
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Net Contents:	CONTENTS 5L - 1000L
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Restraints:	<p>RESTRAINTS</p> <p>DO NOT apply without the addition of an oil (see GENERAL INSTRUCTIONS). DO NOT apply to plants that are stressed by moisture or temperature extremes. DO NOT apply if rain is expected within one hour of application. DO NOT apply more than once to any one crop.</p> <p>SPRAY DRIFT RESTRAINTS:</p> <p>Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift</p> <p>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</p>
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	<p>of plant or livestock commodities, outside the application site from spray drift. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.</p> <p>DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.</p> <p>DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.</p>
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	<p>WITHHOLDING PERIODS HARVEST</p> <p>Pasture Legume (Lucerne, Clover and Medic) Seed Crops and Pastures: NOT REQUIRED WHEN USED AS DIRECTED.</p> <p>Canola, Cotton, Peanuts, Pulses (Adzuki Beans, Broad Beans, Chickpeas, Faba Beans, Field Peas, Lentils, Lupins, and Mung Beans) and Soybeans: NOT REQUIRED WHEN USED AS DIRECTED.</p> <p>Forestry: NOT REQUIRED WHEN USED AS DIRECTED.</p> <p>Beetroot, Cabbage: DO NOT APPLY LATER THAN 7 DAYS BEFORE HARVEST.</p> <p>Onions: DO NOT APPLY LATER THAN 14 DAYS BEFORE HARVEST.</p> <p>Lettuce, Potatoes: DO NOT APPLY LATER THAN 4 WEEKS BEFORE HARVEST.</p> <p>Celery: DO NOT APPLY LATER THAN 9 WEEKS BEFORE HARVEST.</p> <p>GRAZING</p> <p>Pasture Legume (Lucerne, Clover and Medic) Seed Crops and Pastures: DO NOT GRAZE OR CUT FOR STOCK FEED FOR 14 DAYS AFTER APPLICATION.</p> <p>Canola, Peanuts, Pulses (Adzuki Beans, Broad Beans, Chickpeas, Faba Beans, Field Peas, Lentils, Lupins, and Mung Beans) and Soybeans: DO NOT GRAZE OR CUT FOR STOCK FEED FOR 21 DAYS AFTER APPLICATION.</p> <p>Cotton: DO NOT GRAZE OR CUT COTTON FORAGE OR STUBBLE FOR STOCK FEED.</p>
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Trade Advice:	
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General Instructions:	This section contains file attachment.
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Resistance Warning:	<p>RESISTANT WEEDS WARNING</p> <p>Smart Clethodim 360EC Herbicide is a member of the cyclohexanedione group of herbicides. Smart Clethodim 360EC Herbicide has the inhibition of acetyl coA carboxylase mode of action. For weed resistance management, Smart Clethodim 360EC Herbicide is a Group 1 Herbicide. Some naturally-occurring weed biotypes resistant to Smart Clethodim 360EC Herbicide and other Group 1 Herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be</p>
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	controlled by Smart Clethodim 360EC Herbicide or other Group 1 Herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Smart Crop Pty Ltd accepts no liability for any losses that may result from the failure of Smart Clethodim 360EC Herbicide to control resistant weeds.
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Precautions:	<p>CAUTION</p> <p>Ornamentals and Trees – While Smart Clethodim 360EC Herbicide is generally selective to broadleaved plants (i.e. it is active against grasses), tests should always be made on a small number of plants not previously tested.</p> <p>DO NOT use on Gymnosperms (pines, conifers, etc) unless a prior test has been conducted to check safety on the relevant species.</p>
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS</p> <p>DO NOT apply Smart Clethodim 360EC Herbicide if wind is likely to cause drift onto susceptible crops/plants, cropping lands or pastures. Smart Clethodim 360EC Herbicide should not be applied through misting equipment or any other method likely to cause excessive drift. Care should be taken to avoid damage to adjoining native grasses or grass crops.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</p> <p>DO NOT contaminate streams, rivers or waterways with the product or used containers.</p>
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Storage and Disposal:	<p>STORAGE AND DISPOSAL</p> <p>Store in the closed, original container in a dry, cool well-ventilated area out of direct sunlight. Protect from frost. 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 authority is not available, bury the empty packaging 500mm 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.</p> <p>For Refillable containers: Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p>
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Safety Directions:	<p>SAFETY DIRECTIONS</p> <p>Harmful if swallowed. Will irritate the eyes and skin. When preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist, washable hat, elbow-length chemical resistant gloves and face shield or goggles. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.</p>
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First Aid Instructions:	<p>FIRST AID</p> <p>If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26; New Zealand 0800 764 766. If swallowed, DO NOT induce vomiting.</p>
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First Aid Warnings:

DIRECTIONS FOR USE

Crop	Crop Growth Stage	Weeds Controlled	Rate mL/ha	Stage of Weed Growth	State	Critical Comments
Canola	DO NOT apply after flower buds become visible (green buds)	Annual Ryegrass (<i>Lolium rigidum</i>), Annual Phalaris (<i>Phalaris minor</i>)	100 to 333	2-leaf to fully tillered	QLD, NSW, ACT, VIC, TAS, SA, WA only	Always apply with a crop oil. See Adjuvants and Spray Additives for specific instructions. The lower doses will provide effective control if applied under ideal conditions to weeds that are smaller, actively growing and free from temperature or water stress. See COMPATIBILITY AND CAUTIONS in GENERAL INSTRUCTIONS for mixture recommendations with insecticides, fungicides and other herbicides.
		Barley Grass (<i>Hordeum leporinum</i>), Brome Grass (<i>Bromus diandrus</i>), Wild Oats (<i>Avena spp.</i>)	116 to 333			
		Volunteer Wheat (<i>Triticum aestivum</i>), Volunteer Oats (<i>Avena sativa</i>)	133 to 333 (116 to 333 in WA only)			
		Silver Grass (<i>Vulpia bromoides</i>) suppression only	166 to 333			
		Paradoxa Grass (<i>Phalaris Paradoxa</i>)	166 to 250 250 - 333	2- to 5-leaf stage 5-leaf to fully tillered	QLD, NSW, ACT only	
Pulse crops (including adzuki beans, broad beans, chickpeas, faba beans, field peas, lentils^ and lupins#). Pasture (1) legume (lucerne, clover and medic) seed crops and pastures (1) (including	Adzuki beans: DO NOT APPLY after first flower buds are visible.	Annual Ryegrass (<i>Lolium rigidum</i>) Annual Phalaris (<i>Phalaris minor</i>)	100 to 333	2 leaf to fully tillered	QLD, NSW, ACT, VIC, TAS, SA, WA only	Always apply with a crop oil. See Adjuvants and Spray Additives for specific instructions. The lower doses will provide effective control if applied under ideal conditions to weeds that are smaller, actively growing and free from temperature or water stress. See COMPATIBILITY AND CAUTIONS in GENERAL INSTRUCTIONS for mixture recommendations with insecticides, fungicides and other herbicides. ^ Application up to 7-
		Barley Grass (<i>Hordeum leporinum</i>) Brome grass (<i>Bromus diandrus</i>) Wild Oats (<i>Avena spp.</i>)	116 to 333			
	Chickpeas, faba beans, broad beans, field peas: DO NOT APPLY beyond full flowering.	Volunteer Wheat (<i>Triticum aestivum</i>) Volunteer Oats (<i>Avena sativa</i>)	133* to 333* (116 to 333 in WA only)			
		Volunteer Barley (<i>Hordeum vulgare</i>)	333			

Crop	Crop Growth Stage	Weeds Controlled	Rate mL/ha	Stage of Weed Growth	State	Critical Comments
pastures containing chicory and plantain).	to the 7 node/ early branching stage of crop growth.	Silver grass (<i>Vulpia bromoides</i>) – suppression only	166 to 333		NSW, ACT, VIC, TAS only	node/early branching crop growth stage only. # NOT QLD (1) See use of Smart Clethodim 360EC
	Lupins: DO NOT APPLY after 80% of flowers have opened.	Paradoxa grass, (<i>Phalaris paradoxa</i>)	166 - 250 250-333	2 to 5 leaf stage 5-leaf to fully tillered	QLD, NSW, ACT only	Herbicide in pastures under General Instructions.
Cotton (Qld, NSW and NT only)	Cotton: DO NOT APPLY after full flowering (mid bloom).	Barnyard Grass (<i>Echinochloa spp.</i>), Blown Grass (<i>Agrostis aveacea</i>), Crowsfoot Grass (<i>Eleusine indica</i>), Feathertop Rhodes Grass (<i>Chloris virgata</i>), Liverseed Grass (<i>Urochloa panicoides</i>), Red Sprangletop Grass (<i>Leptochloa filiformis</i>), Seedling Johnson Grass (2) (<i>Sorghum halepense</i>), Summer Grass (<i>Digitaria spp.</i>), Volunteer Sorghum (<i>Sorghum spp.</i>)	166 to 250 250-333	2 to 5 leaf Stage 5-leaf to fully tillered	QLD, NSW, ACT, VIC, WA, NT only	Always apply with a crop oil. See Adjuvants and Spray Additives for specific instructions. The lower doses will provide effective control if applied under ideal conditions to weeds that are smaller, actively growing and free from temperature or water stress.
Peanuts, Mung beans, Soybeans Pasture legume (lucerne, clover and medic) seed crops and pastures (including pastures containing chicory and plantain).	Peanuts: DO NOT APPLY after the pod fill stage of crop development.	Mung beans, soybeans: DO NOT APPLY after first flower buds are visible.				See COMPATIBILITY AND CAUTIONS in GENERAL INSTRUCTIONS for mixture recommendations with insecticides, fungicides and other herbicides. (1) See use of Smart Clethodim 360EC
						Herbicide in pastures under General Instructions.
						(2) Only Johnson Grass seedlings germinating from seed will be controlled. Seedlings that appear later as shoots from underground stems will not be controlled, and more than one application may be required to control emerging shoots.
						Always apply with a crop oil. See Adjuvants and Spray Additives for specific instructions.

Crop	Weeds Controlled	Rate mL/ha	Stage of Weed Growth	State	Critical Comments
Beetroot, Cabbage, Celery, Lettuce, Potatoes, Onions	Barnyard Grass (<i>Echinochloa spp.</i>), Blown Grass (<i>Agrostis aveacea</i>), Crowsfoot Grass (<i>Eleusine indica</i>), Feathertop Rhodes Grass (<i>Chloris virgata</i>), Liverseed Grass (<i>Urochloa panicoides</i>), Paradoxa Grass (<i>Phalaris paradoxa</i>), Red Sprangletop Grass (<i>Leptochloa filiformis</i>), Seedling Johnson Grass (1) (<i>Sorghum halepense</i>), Summer Grass (<i>Digitaria spp.</i>), Volunteer Sorghum (<i>Sorghum spp.</i>)	166 to 250 250-333	2 to 5 leaf stage 5-leaf to fully tillered	All states	The lower doses will provide effective control if applied under ideal conditions to weeds that are smaller, actively growing and free from temperature or water stress. Use a spray volume of 150L/ha when spraying dense grass populations. (1) Only Johnson Grass seedlings germinating from seed will be controlled. Seedlings that appear later as shoots from underground stems will not be controlled, and more than one application may be required to control emerging shoots. Always apply with a crop oil. See Adjuvants and Spray Additives for specific instructions.
	Annual Ryegrass (<i>Lolium rigidum</i>), Annual Phalaris (<i>Phalaris minor</i>), Barley Grass (<i>Hordeum leporinum</i>), Brome Grass (<i>Bromus diandrus</i>), Wild Oats (<i>Avena spp.</i>)	100 to 333 116 to 333	2 leaf to fully tillered	All states	
	Volunteer Wheat (<i>Triticum aestivum</i>), Volunteer Oats (<i>Avena Sativa</i>)	133 to 333 (116 to 333 in WA only)			
	Volunteer Barley (<i>Hordeum vulgare</i>)	333			
	Silver grass (<i>Vulpia bromoides</i>) – suppression only (not Qld, WA)	166 to 333			
	Winter grass (<i>Poa annua</i>)	333			
Forestry, non-bearing fruit trees and ornamentals	Annual Ryegrass (<i>Lolium rigidum</i>), Annual Phalaris (<i>Phalaris minor</i>), Barley Grass (<i>Hordeum leporinum</i>), Barnyard Grass (<i>Echinochloa</i>	333	2 leaf to fully tillered	All states	Apply after plants have recovered from transplant shock and are showing signs of active growth. Always apply with a crop oil. See Adjuvants and Spray Additives for

Crop	Weeds Controlled	Rate mL/ha	Stage of Weed Growth	State	Critical Comments
	<p><i>spp.</i>), Blown Grass (<i>Agrostis aveacea</i>), Brome Grass (<i>Bromus diandrus</i>), Crowsfoot Grass (<i>Eleusine indica</i>), Feathertop Rhodes Grass (<i>Chloris virgata</i>), Liverseed Grass (<i>Urochloa panicoides</i>), Paradoxa Grass (<i>Phalaris paradoxa</i>), Red Sprangletop Grass (<i>Leptochloa filiformis</i>), Seedling Johnson Grass (1) (<i>Sorghum halepense</i>), Silver Grass (<i>Vulpia bromoides</i>) – suppression only (not QLD, WA), Summer Grass (<i>Digitaria spp.</i>), Volunteer Sorghum (<i>Sorghum spp.</i>), Volunteer Wheat (<i>Triticum aestivum</i>), Volunteer Oats (<i>Avena sativa</i>), Volunteer Barley (<i>Hordeum vulgare</i>), Winter Grass (<i>Poa annua</i>)</p>				<p>specific instructions. Use a spray volume of 150L/ha when spraying dense grass populations. DO NOT use on Gymnosperms (pines, conifers, etc) unless a prior test has been conducted to check safety on the relevant species.</p> <p>See COMPATIBILITY AND CAUTIONS in GENERAL INSTRUCTIONS for particular species.</p> <p>(1) Only Johnson Grass seedlings germinating from seed will be controlled. Seedlings that appear later as shoots from underground stems will not be controlled, and more than one application may be required to control emerging shoots.</p>

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

GENERAL INSTRUCTIONS

CLEANING SPRAY EQUIPMENT

Before using Smart Clethodim 360EC Herbicide

Ensure that the recommended clean-out procedures for the previous product (particularly sulfonylurea herbicides) sprayed with the equipment was done properly.

After using Smart Clethodim 360EC Herbicide

Empty the tank and drain the whole system.

Thoroughly wash inside the tank using a pressure hose, drain the tank and clean filters in the tank, pump line and nozzles.

Use of a household detergent will aid in the cleaning the equipment. Add detergent to the part-filled spray tank and thoroughly circulate through pumps, hoses and nozzles. Drain the system and thoroughly rinse twice with clean water.

Rinse water should be discharged onto a designated disposal area, or if this is unavailable, onto unused land away from desirable plants and water sources.

MIXING

To ensure even mixing, half-fill the spray tank with clean water, add the required amount of Smart Clethodim 360EC Herbicide. Add spray additive and agitate thoroughly, then add the remainder of the water. Agitate again before spraying commences.

ADJUVANTS AND SPRAY ADDITIVES Always apply Smart Clethodim 360EC Herbicide with a crop oil. Smart Clethodim 360EC Herbicide may be applied with Hasteen*, Kwickin*, Activoil*, D-C-Trate Advance or Rocket* at 1L/100L water or with Uptake* or Enhance* at 0.5-1L/100L water. (Use the higher rate of oil when weeds are large or if spraying conditions are less than optimal.) Smart Clethodim 360EC Herbicide may also be applied with D-C-Trate* at 2L/100L water. Smart Clethodim 360EC Herbicide is compatible with ammonium sulphate products such as Spraymate* Liase. When mixing Smart Clethodim 360EC Herbicide with atrazine use Uptake or Enhance at 1L/100L as the adjuvant. The addition of ammonium sulphate is recommended to improve performance of this tank mix. Smart Clethodim 360EC Herbicide is not compatible with Hot-Up* Spray Adjuvant or Freeway* Gold Penetrant.

APPLICATION

Ground Application

Smart Clethodim 360EC Herbicide should be applied with calibrated spray equipment. **DO NOT** apply with spray droplets smaller than a **MEDIUM** spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the BCPC Guideline. Apply in a minimum of 50 litres of water per hectare. Use 150 L/ha when spraying dense populations.

Aerial Application

Smart Clethodim 360EC Herbicide can be applied through aircraft fitted with boom or Micronair equipment. **DO NOT** apply with spray droplets smaller than a **MEDIUM** spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the BCPC Guideline. A spray volume of 20 to 30 L/ha is recommended.

Best results will be obtained when aerial applications are made in a light crosswind. Applications should not be made during temperature inversions or in conditions of very low relative humidity. Care should be taken to avoid drift damage to adjoining grass crops.

USE OF SMART CLETHODIM 360EC HERBICIDE ON PASTURE LEGUME (LUCERNE, CLOVER AND MEDIC) SEED CROPS AND PASTURES AND PASTURE HERBS

Smart Clethodim 360EC Herbicide has been demonstrated to be safe when applied to the following cultivars during early establishment.

- Pasture legumes
- Clover (*Trifolium* spp.)
- Annual: Subterranean Clover (Dalkeith, Dalsa, Goulburn, Koala, Nungarrin, Riverina, Seaton Park and York A), Arrowleaf Clover (Zulu II), Balansa Clover (Enduromax, Frontier, Paradana), Berseem Clover (Elite II), Gland Clover (Prima), Persian Clover (Prolific, Leeton), Rose Clover (Hykon).
- Perennial: Strawberry Clover (Palestine), White clover (NuSiral).
- Lucerne and Medics (*Medicago* spp.) Lucerne (Aurora, Field, Genesis, Hunterfield, Multileaf, Salado, Sardi SEVEN, Sceptre and Venus), Barrel Medic (Sephi, Jester Paraggio, Caliph), Burr Medic (Scimitar, Santiago), Snail Medic (Silver).
- Serradella (*Ornithopus* spp.) French or Pink Serradella (Cadiz), Yellow Serradella (Charano, Santorini).
- Pasture herbs: Chicory (Puna II) and Plantain (Tonic) Apply Smart Clethodim 360EC Herbicide when plants have reached 2-4 trifoliate leaf stage, or after 40 days from sowing. Some pasture varieties may exhibit an initial reduction in crop vigour or biomass, however, these symptoms are transient and crops recover fully with no effect on yield.

COMPATIBILITY

Grass Herbicides: Smart Clethodim 360EC Herbicide is compatible with the following grass herbicides: Targa*, Fusilade*, Verdict*, Sertin* and Correct* (refer to the Bayer Correct label for detail on adjuvant recommendations for that product).

NOTE: In all situations where Smart Clethodim 360EC Herbicide is mixed with another grass herbicide, Smart Clethodim 360EC Herbicide should be used at the full label rate specified for the target weed species.

Smart Clethodim 360EC Herbicide may also be applied in tank mixtures with one of the following products: Fastac* 100, Le-Mat*, Lontrel*, Spin Flo*, Sumi-Alpha* Flex*, Sumisclex* Broadacre and Dithane* M45.

Smart Clethodim 360EC Herbicide is compatible with atrazine. Avoid using this tank mix when crops are stressed by environmental factors. When mixing Smart Clethodim 360EC Herbicide with atrazine use Uptake* or Enhance* at 1L/100L as the adjuvant. The addition of an ammonium sulphate product such as Spraymate* Liase is recommended to improve performance of this tank mix.

Smart Clethodim 360EC Herbicide should not be applied in a tank mix with Bravo* (chlorothalonil), Brodal* (diflufenican), Basagran* (bentazone and MCPA) or Blazer* (acifluorfen). Apply as separate applications. For information on compatibility of products not listed, please refer to Crop Smart Pty Ltd.