

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

Sertin[®] 186 EC

SELECTIVE POST-EMERGENCE HERBICIDE

Active Constituent: 186 g/L SETHOXYDIM
Solvent: 689 g/L LIQUID HYDROCARBONS

GROUP A HERBICIDE

For the control of specific emerged grass weeds in various crops as specified in the DIRECTIONS FOR USE table

GENERAL INSTRUCTIONS

Sertin 186 EC Selective Post-emergence Herbicide is a member of the cyclohexanedione group of herbicides. Sertin is a herbicide which inhibits production of acetyl coA carboxylase. For weed resistance management Sertin is a Group **A** herbicide. Some naturally-occurring weed biotypes resistant to Sertin, and other Group **A** 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 controlled by Sertin or other Group **A** herbicides. Since occurrence of resistant weeds is difficult to detect prior to use, Bayer CropScience Pty Ltd accepts no liability for any losses that may result from the failure of Sertin to control resistant weeds.

Export of Treated Produce

Growers should note that suitable MRLs or import tolerances may not have been established in all markets for produce treated with Sertin 186 EC Selective Post-emergence Herbicide. If you are growing produce for export, please check with Bayer CropScience Pty Ltd for the latest information on MRLs and import tolerances BEFORE using Sertin.

General Information

Sertin must always be applied in combination with spray oil or, in certain cases, a non-ionic surfactant. Sertin is a selective grass herbicide which acts on emerged grass weeds by absorption through the plant foliage. Seven to ten days after application of Sertin, the older leaves of grasses show a purple colouration, the young shoots gradually turn yellow and the base of the youngest shoot begins to die. Total plant collapse occurs within 14 to 21 days. Mild, wet weather encourages plant growth and increases the activity of Sertin. Hot, dry or excessively cold weather slows activity. The product does not control broad-leaved weeds, nutgrass, wintergrass or fescues (silvergrass). Allow Sertin to dry on the leaves of grass weeds. Do NOT apply this product after applying acifluorfen, bentazone or methabenzthiazuron, or within 10 days of the application of metribuzin as good grass control may be reduced.

Sertin may be tank-mixed at reduced application rates, with Correct or with Fusilade for broader spectrum grass weed control as per the DIRECTIONS FOR USE Table.

On winter weed species (i.e. volunteer wheat, volunteer oats, wild oats, paradoxa grass and annual ryegrasses) 1 L of spray oil is required for spray volumes up to 100 L/ha. For volumes greater than 100 L/ha and in all other situations, 2 L of spray oil is required. In certain specific cases as detailed in the CRITICAL COMMENTS, a non-ionic surfactant (BS 1000) may be used. In tank mixtures with Correct or Fusilade, specific adjuvant combinations are detailed in the DIRECTIONS FOR USE Table.

Ornamentals

In general, Sertin is selective to broad-leaved plants i.e. it is active only against grasses (Gramineae). A check should always be made on a small number of ornamental plants of a variety or species not previously tested. The product has been found to be non-phytotoxic when applied over-the-top of the following ornamental species:

<i>Azalea</i> spp.	<i>Juniperus</i> spp.	<i>Cotoneaster horizontalis</i>
<i>Lagerstroemia indica</i>	<i>Erica ventricosa</i>	<i>Mirbelia oxyloboides</i>
<i>Eucalyptus scoparia</i>	<i>Phlox</i> cv. Pink Desire	<i>Grevillea</i> cv. Clear view David
<i>Picea</i> spp.	<i>Jacaranda</i> spp.	<i>Scaevola</i> cv. Mauve Clusters

Slight phytotoxicity was observed when the product was applied over-the-top of:

<i>Eucalyptus globulus</i>	<i>Gardenia jasminoides</i>	<i>Fuchsia</i> spp.
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Severe phytotoxicity to *Acer palmatum* was observed in a similar application.

Mixing

When applying Sertin with an adjuvant or BS 1000 only, add half the required amount of water to the tank, then add the measured amount of Sertin with the agitator running. Continue filling to the desired level and then, with the agitator still running, add the required amount of adjuvant or BS 1000.

When applying Sertin with an adjuvant and/or BS 1000 in mixtures with another herbicide, add half the required amount of water to the tank, then with the agitator running, add the measured amount of Sertin and continue agitation for 2 to 3 minutes; add the other herbicide and continue agitation for a further 2 to 3 minutes; add the required amount of adjuvant and/or BS 1000, agitate for a further 2 to 3 minutes, then add the remainder of water.

Do NOT allow spray mix to sit overnight.

Application

Ground Rig Application: Use sprayers with tapered flat fan nozzles. The use of 110° flat fan nozzles is recommended for optimum spray coverage. The use of flood jet or hollow cone nozzles is not recommended.

Apply 40 to 400 L spray volume/ha with minimum pressure of 240 kPa.

Aerial Application: Use a boom spray or AU5000 Mini Micronaire rotary atomisers. Do NOT use AU3000 Micronaires. Apply 30 to 40 L total spray volume/ha on a narrow swath width.

Compatibility

The following table summarises the current knowledge on compatibility of Sertin with other herbicides;

Afalon®	Basagran®	Betanal®	Blazer®	Brodal®	Broadstrike®	Correct®	Eclipse®	Fusilade	Igran®	Lontrel®	simazine	2,4-DB	Verdict®

green

Trials indicate no reduction in grass weed control when used as recommended. Mixtures may be used with minimal loss of activity under good growing conditions.

yellow

Trials indicate some reduction in grass weed control and/or increased crop phytotoxicity at recommended rates, even under good growing conditions. These mixtures will usually result in reduced grass weed control and cannot be recommended unless such efficacy loss is accepted.

red

Trials at recommended rates indicate severe reduction in grass weed control and/or significant crop injury. Mixture is not recommended.

Sertin is NOT compatible with MCPA or MCPB. Ioxynil is NOT compatible with Sertin in combination with crop oil. Sertin should NOT be applied in a tankmix with or within 10 days of application of metribuzin or weed control may be reduced and the risk of phytotoxicity will be increased.

Sertin may be tank mixed with Correct or with Fusilade for broader spectrum grass weed control as per the DIRECTIONS FOR USE Table.

Sertin in combination with an adjuvant should not be applied in a tankmix with Brodal or simazine in lupins as the risk of phytotoxicity will be increased. However, Sertin can be tank mixed with Brodal provided a non-ionic surfactant (BS 1000) is substituted for crop oil. Transient phytotoxicity may still occur. Do NOT use this combination in crops which are stressed due to any cause, as damage may occur.

Sertin may be mixed with most commonly used insecticide and fungicide formulations however, it is not compatible with diazinon, carbaryl or fenitrothion.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with this product or the used container.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions or from spraying equipment which could be expected to cause spray to drift onto nearby susceptible plants (e.g. cereals, maize, sweet corn, sorghum or turf grasses), adjacent crops, crop lands or pastures. To avoid contamination and possible crop injury, ensure that correct boom cleaning procedures are followed prior to using this product. Consult the labels of products used previously for specific instructions.

STORAGE AND DISPOSAL

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

Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.



SAFETY DIRECTIONS

Avoid contact with eyes and skin and clothing. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (telephone 13 11 26).

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet, which can be obtained from www.bayercropscience.com.au.

EXCLUSION OF LIABILITY

This product must be used strictly as directed, and in accordance with all instructions appearing on the label and in other reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

Betanal[®], Brodal[®], Correct[®] and Sertin[®] are Registered Trademarks of Bayer.

APVMA Approval No.: 31839/0305

FOR 24 HOUR SPECIALIST ADVICE
IN EMERGENCY ONLY
PHONE 1800 033 111

DIRECTIONS FOR USE**Restraints**

DO NOT apply to grass weeds under stress caused by either climatic conditions such as cold, drought or waterlogging, or by the use of a pre-emergent herbicide as poor control may be achieved.

DO NOT apply if rainfall is imminent.

DO NOT apply overhead irrigation within 2 hours after application.

BROADACRE CROPS AND PASTURE

CROP (crops in bold are listed more than once)	WEEDS CONTROLLED	STATE	RATE/HA	WHP	CRITICAL COMMENTS
Canola, chickpeas, faba beans, field peas, green (freezer) peas (not Qld, NT), lentils, linseed (not Qld), lupins, soybeans,	Annual prairie grass (seedling), Awnless barnyard grass, barnyard grass, <i>Bracharia windersii</i> (Qld, NT only), crowsfoot grass, <i>Dinebra retroflexa</i> (Qld, NT only), green summer grass (Qld, NT only), Johnson grass (seedling), lesser canary grass (<i>Phalaris minor</i>), liverseed grass, paradoxa grass (<i>Phalaris paradoxa</i>) (Qld, NSW, NT only), pigeon grass (foxtail grass, Tas) (<i>Setaria verticillata</i>) (Vic, Tas, SA only), ryegrasses (not Qld, NT) (Wimmera ryegrass, Vic), stink grass, summer grass, volunteer oats, volunteer sorghum, volunteer wheat wild oats	All States	1 L plus 1 or 2 L of a crop oil such as D-C-Trate [®] or Ulvapron [®]	21 days (G)	Weed stage at application: Apply when the majority of the grass weeds are in the 2 to 6 leaf stage and are actively growing. NOTE: The 1 L rate of Sertin will control paradoxa grass and ryegrass up to the 4 tiller stage.
Clover and medic pastures and seed crops* , common stylo (<i>Stylosanthes guianensis</i>) (Qld, NT only)*, lucerne * Do NOT use on pastures containing desirable grasses.				14 days (G)	See Compatibility and GENERAL INSTRUCTIONS for precautions regarding mixtures with, or following application of various other products. Winter weeds: On winter weed species when applying less than 100 L/ha of spray volume use the 1 L rate of spray oil. In all other situations use 2 L/ha.
Cotton (Qld, NSW, WA, NT only)				Refer to WHP statement	
Sunflowers				-	



BROADACRE CROPS AND PASTURE (continued)

CROP (crops in bold are listed more than once)	WEEDS CONTROLLED	STATE	RATE/HA	WHP	CRITICAL COMMENTS
Canola, chickpeas, clover and medic pastures and seed crops*, faba beans, field peas, green (freezer) peas (not Qld), lentils, linseed (not Qld), lucerne, lupins * Do NOT use on pastures containing desirable grasses.	Annual ryegrass (not Qld), paradoxa grass (<i>Phalaris paradoxa</i>) (NSW, Qld only)	Qld, NSW, Vic, SA, WA only	500 mL to 1 L plus 1 or 2 L of a crop oil such as D-C-Trate or Ulvapron	21 days (G) [except clover and medic pastures and seed crops, lucerne: 14 days]	When applying less than 100 L/ha of spray volume use the 1 L rate of spray oil. In all other situations use 2 L/ha. See Compatibility and GENERAL INSTRUCTIONS for precautions regarding mixtures with, or following application of various other products. Annual ryegrass, paradoxa grass: Use the minimum 500 mL/ha rate before annual ryegrass or paradoxa grass commence tillering. When ryegrass and paradoxa grass commence tillering or when conditions are less than excellent, use a higher rate of up to 1 L/ha. Do NOT use on tillered weeds that are under stress. NOTE: The 1 L rate of Sertin will control paradoxa grass and ryegrass up to the 4 tiller stage. Wild oats: For control of wild oats up to the 4 leaf pre-tillering growth stage, use at least 750 mL/ha.
	Wild oats (before tillering)	NSW, Vic, SA only	750 mL to 1 L plus 1 or 2 L of a crop oil such as D-C-Trate or Ulvapron		
Canola, chickpeas, clover and medic pastures and seed crops*, faba beans, field peas, lupins * Do NOT use on pastures containing desirable grasses.	Annual ryegrass, barley grass, brome grass, volunteer cereals, wild oats	NSW, Vic, SA, WA only	250 mL to 500 mL Sertin plus (+) 250 mL Fusilade® plus 2% D-C-Trate	21 days (G) [except clover and medic pastures and seed crops: 14 days]	Use this mixture with Fusilade where barley grass, brome grass or volunteer barley occur in combination with annual ryegrass. Use the lower rate of Sertin when ryegrass is pre-tillering and growing conditions are good. Increase the Sertin rate when either: <ul style="list-style-type: none"> • weeds are tillering • growth conditions are less than excellent • high weed populations occur. Do NOT use on tillered weeds that are under stress.
			or plus (+) 2% crop oil (such as Ulvapron) with 0.2% BS 1000®		
Canola, chickpeas, faba beans, field peas, lentils, linseed, lupins			250 mL to 300 mL Sertin plus (+) 200 mL to 300 mL Correct® with 0.2% BS 1000		Use this mixture with Correct where barley grass, brome grass or volunteer barley occur in combination with annual ryegrass. Use Sertin at the higher rate when ryegrass populations are high or dominate the weed spectrum. Use Correct at the higher rate when brome grass populations are high or dominate the weed spectrum. The total applied product should not be less than 500 mL/ha. Apply when weeds are at early tillering stage.

BROADACRE CROPS AND PASTURE (continued)

CROP (crops in bold are listed more than once)	WEEDS CONTROLLED	STATE	RATE/HA	WHP	CRITICAL COMMENTS
Lupins	Annual ryegrass	WA only	500 mL plus 0.1% BS 1000	21 days (G) [except clover and medic pastures and seed crops: 14 days]	<p>Use this combination, with BS 1000 as a surfactant, for control of pre-tillering ryegrass only <u>and only in tank mixtures with Brodal®</u> where the combination with D-C-Trate etc. may cause unacceptable crop phytotoxicity.</p> <p>This BS 1000 combination may still cause transient crop phytotoxicity.</p> <p>Do NOT use this combination on crops that are stressed due to any cause as damage may occur.</p> <p>Note: Do NOT use BS 1000 as an alternative to crop oils in other situations as weed control will be reduced.</p> <p>See also Compatibility and GENERAL INSTRUCTIONS.</p>

BROADACRE CROPS – Latest growth stage for application

CROP	GROWTH STAGE
Canola	Do NOT apply after flower buds become visible (green buds).
Chick peas, faba beans, field peas, lentils	Do NOT apply after the start of flowering.
Cotton	Do NOT apply after the start of boll opening.
Green (freezer) peas	Refer to withholding period statement.
Linseed, soybeans	Do NOT apply after flower buds become visible.
Lupins	Do NOT apply after the start of primary flowering (big bud).
Peanuts	Do NOT apply after the start of pegging.
Sunflowers	Do NOT apply after head initiation.

When using Sertin 186 EC in a tank mix with another product also take the growth stage application window of the other product into consideration.

HORTICULTURAL CROPS

CROP (crops in bold are listed more than once)	WEEDS CONTROLLED	STATE	RATE/HA	WHP	CRITICAL COMMENTS
Asparagus	Annual prairie grass (seedling), Awnless barnyard grass, barnyard grass, <i>Bracharia windersii</i> (Qld, NT only), crowsfoot grass, <i>Dinebra retroflexa</i> , (Qld, NT only), green summer grass (Qld, NT only), Johnson grass (seedling), Lesser canary grass (<i>Phalaris minor</i>), liverseed grass, paradoxa grass (<i>Phalaris paradoxa</i>) (Qld, NSW, NT only), pigeon grass (foxtail grass, Tas) (<i>Setaria verticillata</i>) (Vic, Tas, SA only), ryegrasses (not Qld, NT) (Wimmera ryegrass, Vic), stink grass, summer grass, volunteer oats, volunteer sorghum, volunteer wheat, wild oats	All States	1 L plus 1 or 2 L of a crop oil such as D-C-Trate or Ulvapron	1 day (H)	Weed stage at application: Apply when the majority of the grass weeds are in the 2 to 6 leaf stage and are actively growing. NOTE: The 1 L rate of Sertin will control paradoxa grass and ryegrass up to the 4 tiller stage. See Compatibility and GENERAL INSTRUCTIONS for precautions regarding mixtures with, or following application of various other products. Winter weeds: On winter weed species when applying less than 100 L/ha of spray volume use the 1 L rate of spray oil. In all other situations use 2 L/ha.
Brassica crops (direct sown or transplanted) i.e. cabbage, cauliflower, Brussels sprouts, broccoli, Kohlrabi; green beans (Qld, WA, NT, Tas only), swedes (Tas only), tomatoes				6 weeks (H)	
Butternut pumpkins, cucumbers, lettuce, melons, onions , pumpkins, red beet, zucchini				4 weeks (H)	
Carrots, peanuts (Qld, NSW, WA, NT only), potatoes, sweet potatoes (not Vic)				-	
Brassica crops (direct sown or transplanted) i.e. cabbage, cauliflower, Brussels sprouts, broccoli, kohlrabi; green beans, swedes	English couch (rope twitch, quack grass), onion twitch (bulbous oat grass)	Tas only	1.5 L plus 2 L of a crop oil such as D-C-Trate or Ulvapron	6 weeks (H)	Apply when the majority of the target weeds are in the 3 leaf stage; repeat application when weed re-growth is in the 3 leaf stage to obtain suppression for the growing life of the crop.
Green (freezer) peas, oilseed poppies				10 weeks (H)	
Onions				4 weeks (H)	
Potatoes, sweet potatoes				-	
Ornamentals	Kikuyu, common couch	All States	8 mL plus 10 mL of a crop oil such as D-C-Trate or Ulvapron per litre of water.	-	Spray runners, which are actively growing, in early spring; a second application 3 weeks later may be necessary to ensure total kill. Apply as a directed spray to the grass weeds at the base of the ornamentals. Some species of ornamentals may show phytotoxic effects when sprayed over the top. See GENERAL INSTRUCTIONS – Ornamentals for further information.

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

WITHHOLDING PERIOD (WHP):

Harvest (H)

Canola, carrots, chickpeas, cotton, faba beans, field peas, lentils, linseed, lupins, ornamentals, peanuts, potatoes, soybeans, sunflowers, sweet potatoes:

NOT REQUIRED WHEN USED AS DIRECTED.

Asparagus:

DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.

Beets, butternut pumpkins, cucurbits, lettuce, onions:

DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.

Brassica crops, green beans, swedes, tomatoes:

DO NOT HARVEST FOR 6 WEEKS AFTER APPLICATION

Green (freezer) peas, oilseed poppies:

DO NOT HARVEST FOR 10 WEEKS AFTER APPLICATION.

Grazing (G)

Common stylo, clover and medic pastures and seed crops, lucerne:

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER APPLICATION.

Canola, chickpeas, faba beans, field peas, green beans, green (freezer) peas, lentils, linseed, lupins, peanuts, soybeans:

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 21 DAYS AFTER APPLICATION.

Cotton:

DO NOT GRAZE OR CUT COTTON FORAGE OR STUBBLE FOR STOCK FOOD.

When using Sertin 186 EC in a tank mix with another product also take the withholding period of the other product into consideration.