



Product Name: PRECEPT SELECTIVE HERBICIDE  
APVMA Approval No: 60897/137953

Label Name: PRECEPT SELECTIVE HERBICIDE

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

Constituent Statements: ACTIVE CONSTITUENTS:  
125 g/L MCPA PRESENT AS THE 2-ETHYL HEXYL ESTER  
25 g/L PYRASULFOTOLE  
6.25 g/L MEFENPYR-DIETHYL  
SOLVENT: 297 g/L LIQUID HYDROCARBON

Mode of Action: GROUP 4 27 HERBICIDE

Statement of Claims: For the post-emergent control of certain broadleaf weeds in wheat, barley, oats, cereal rye and triticale as specified in the DIRECTIONS FOR USE table.

Net Contents: 1000 L  
20 L - 200 L

Restraints: This section contains file attachment.

Directions for Use: This section contains file attachment.

Other Limitations:

Withholding Periods:	<b>WITHHOLDING PERIODS</b> Harvest NOT REQUIRED WHEN USED AS DIRECTED  Grazing/Stockfood Wheat, barley, oats, cereal rye, triticale <b>DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 4 WEEKS AFTER APPLICATION</b>
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Trade Advice:	
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General Instructions:	This section contains file attachment.
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Resistance Warning:	<b>RESISTANT WEEDS WARNING</b> <b>GROUP 4 27 HERBICIDE</b> Precept Selective Herbicide contains members of the pyrazole (pyrasulfotole) and phenoxy (MCPA) groups of herbicides. Precept is a herbicide which inhibits 4-hydroxyphenylpyruvate dioxygenase (4-HPPD) and also acts by disruption of plant cell growth. For weed resistance management Precept is a Group 4 and Group 27 herbicide. Some naturally-occurring weed biotypes resistant to Precept, and other Group 4 and Group 27 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 may not be controlled by Precept or other Group 4 and Group 27 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 Precept to control resistant weeds. Do not rely exclusively on Precept for weed control. Use as part of an integrated weed management program involving herbicides with other modes of action and non-chemical methods of control. CropLife Australia resistance management strategies are available from your local agricultural chemical supplier. Refer to these strategies for details of how to manage the build up of resistant weeds on your farm.
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Precautions:	<b>PRECAUTIONS</b> Re-entry period Do not allow entry into treated areas until the spray has dried. When 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.
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Protections:	<b>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS</b> DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift and MCPA volatilization onto nearby susceptible plants/crops, cropping lands or pastures.  <b>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</b> Highly toxic to algae and aquatic plants. DO NOT contaminate streams, rivers or waterways with this product or used containers. DO NOT apply under weather conditions or from spraying equipment that could be expected to cause spray to drift onto wetlands, natural surface waters, neighbouring properties or other sensitive areas.
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Storage and Disposal:	<p><b>STORAGE AND DISPOSAL</b></p> <p>Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.</p> <p>(Drummuster/not re-usable containers)</p> <p>Triple rinse container 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 for appropriate disposal 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. Do not re-use empty container for any other purpose.</p> <p>(Schutz/returnable/re-usable containers)</p> <p>If tamper evident seals are broken prior to initial use then the integrity of the contents cannot be assured. Empty container fully into application equipment by pumping through dry-break connection system. Do not attempt to breach the valve system or the filling point, or contaminate the container with water or other products. Ensure that the coupler, pump, meter and hoses are disconnected, triple rinsed and drained after each use. When empty, or contents no longer required, return the container to the point of purchase. This container remains the property of Bayer CropScience Pty Ltd. Do not re-use empty container for any other purpose.</p> <p>(1000 L minibulk container)</p> <p>If tamper evident seals are broken prior to initial use then the integrity of the contents cannot be assured. Empty product as required into application equipment. Do not attempt to breach the valve system or filling point, or contaminate the container with water or other products. Ensure that equipment used in transfer of the product is disconnected, triple rinsed with clean water and drained after each use. When the container is empty, close all caps and valves and return the container to the point of purchase.</p>
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Safety Directions:	<p><b>SAFETY DIRECTIONS</b></p> <p>Corrosive, will damage eyes. May irritate the skin. Avoid contact with eyes and skin. If product in eyes, wash it out immediately with water. When opening the container and preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length chemical resistant gloves and goggles. Wash hands after use.</p>
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First Aid Instructions:	<p><b>FIRST AID</b></p> <p>If poisoning occurs, contact a doctor or Poisons Information Centre Phone Australia 13 11 26. If in eyes wash out immediately with water.</p>
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First Aid Warnings:	
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## RESTRAINTS

**DO NOT** use if rainfall or irrigation is to occur within 2 hours of application.  
**DO NOT** apply to frost affected weeds or if frosts are imminent.  
**DO NOT** apply without adjuvant/crop oil#.  
**DO NOT** apply through a mister.

## SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at [www.apvma.gov.au/spraydrift](http://www.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 relevant buffer zone table/s 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 20 kilometres per hour at the application site during the time of application.

**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.

**DO NOT** apply by a boom sprayer unless the following requirements are met:

- Spray droplets not smaller than a **MEDIUM** spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for boom sprayers') are observed.

### Buffer zones for boom sprayers

Application rate	Mandatory downwind buffer zones		
	Natural aquatic areas	Vegetation areas	Livestock area
Up to maximum label rate	10 m	10 m	20 m

**DO NOT** apply by aircraft unless the following requirements are met:

- Spray droplets not smaller than a **MEDIUM** spray droplet size category.
- For maximum release height above the target canopy of 3 m or 25% of wingspan or 25% of rotor diameter, whichever is the greatest, minimum distances between the application site and downwind sensitive areas (see 'Mandatory downwind buffer zones' section of the following table titled 'Buffer zones for aircraft') are observed.

### Buffer zones for aircraft

Type of aircraft	Wind speed at time of application	Mandatory downwind buffer zones		
		Natural aquatic areas	Vegetation areas	Livestock areas
Fixed-wing and Helicopter	from 3 to 8 kilometres per hour	40 m	300 m	200 m
	from 8 to 14 kilometres per hour	40 m	500 m	300 m
	from 15 to 20 kilometres per hour	60 m	700 m	400 m

## DIRECTIONS FOR USE

CROP	WEED	WEED STAGE	RATE per ha	CRITICAL COMMENTS
<b>Wheat, oats, cereal rye, triticale, 3 leaf (Z13) to first node (Z31); Barley, 5 leaf (Z15) to first node (Z31)</b>  #See "Adjuvant/Crop Oil/Surfactant/Wetting Agent" under <b>General Instructions</b>	Bedstraw ( <i>Gallium spp.</i> )	2 to 6 leaf	1.5 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Capeweed ( <i>Arctotheca calendula</i> )	2 to 6 leaf	1 L + 30 g/ha Lontrel® SG	-
	Canola, volunteer ( <i>Brassica napus</i> )	2 to 8 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Chickpea, volunteer ( <i>Cicer arietinum</i> )	2 leaf to 5 node	1 L + 40 g/ha Lontrel SG	-
	Corn gromwell ( <i>Buglossoides arvensis</i> )	2 to 6 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Deadnettle ( <i>Lamium amplexicaule</i> )	2 to 6 leaf	1.5 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Doublegee ( <i>Emex australis</i> )	2 to 4 leaf	1.5 to 2 L	<b>Suppression of doublegee</b> Will suppress the growth of doublegee but may not adequately reduce plant numbers. Suppression of doublegee may require good growing conditions, good weed coverage at application then good crop competition following application. Use the lower rate where good coverage of each weed can be attained.
	Faba bean, volunteer ( <i>Vicia faba</i> )	2 leaf to 5 node	1 L + 30 g/ha Lontrel SG	-
	Field pea ( <i>Pisum sativum</i> )	2 to 5 leaf	1 to 2 L	Under good conditions Precept at 1 L/ha will provide satisfactory control of field pea. Use the lower rate where good coverage of each weed can be attained.
		2 leaf to 8 node	1 L + 40 g/ha Lontrel SG	-
	Fumitory ( <i>Fumaria densiflora</i> )	2 to 6 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Indian hedge mustard ( <i>Sisymbrium orientale</i> )	2 to 8 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Lentil, volunteer ( <i>Lens culinaris</i> )	2 to 6 leaf	1 L + 30 g/ha Lontrel SG	-
	Lupin, volunteer ( <i>Lupinus spp.</i> )	2 to 8 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Medic, volunteer ( <i>Medicago spp.</i> )	2 to 4 leaf	2 L/ha or 1 L + 30 g/ha Lontrel SG	-
	Paterson's curse ( <i>Echium plantagineum</i> )	2 to 6 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.

CROP	WEED	WEED STAGE	RATE per ha	CRITICAL COMMENTS
	Prickly lettuce ( <i>Lactuca serriola</i> )	2 to 6 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Sowthistle ( <i>Sonchus oleraceus</i> )	2 to 8 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Sub clover, volunteer ( <i>Trifolium subterraneum</i> )	2 to 6 leaf	1 L + 60 g/ha Lontrel SG	-
	Turnip weed ( <i>Rapistrum rugosum</i> )	2 to 6 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Vetch, volunteer ( <i>Vicia sativa</i> )	2 to 6 leaf	1 L + 40 g/ha Lontrel SG	-
	Wild radish ( <i>Raphanus raphanistrum</i> )	2 to 4 leaf	1 to 2 L	DO NOT use the 1 L/ha rate where excellent coverage is not possible. Where target weeds overlap each other, non target weeds overlap the target weed, ground or standing stubble impedes excellent coverage or crop impedes excellent coverage of all target weeds; increasing the rate up to 2 L/ha will improve control in most situations. Because high weed density may cause shading of weeds lower in the plant canopy or other factors may impede excellent herbicide leaf contact a follow up application of a suitable herbicide may be required to control plants remaining after an application of Precept.
		up to 6 leaf	1.5 to 2 L	Use the lower rate where good coverage of each weed can be attained.
		up to 8 leaf	2 L	-
	Wild turnip ( <i>Brassica tournefortii</i> )	2 to 8 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Wireweed ( <i>Polygonum aviculare</i> )	2 to 8 leaf	1 to 2 L	Use the lower rate where good coverage of each weed can be attained.
	Yellow burrweed ( <i>Amsinkia lycopsoides</i> )	2 to 6 leaf	1.5 to 2 L	Use the lower rate where good coverage of each weed can be attained.

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

## **GENERAL INSTRUCTIONS**

Precept is a selective phenoxy (Group 4) and pyrazole (which inhibits 4-HPPD – Group 27) herbicide. It is predominantly a foliar herbicide with limited activity via the soil. Precept will not reliably control weeds that emerge after spraying. Results are best under good growing conditions and application to weeds or crop under stress should be avoided. Precept will substantially reduce the growth of many weeds rather than give complete plant kill.

Refer to the **Critical Comments** in the **Directions for Use table** above and further information in the following **General Instructions**, which includes;

### **1. Adjuvant/crop oil/surfactant/wetting agent**

### **2. Application**

- a) *Mixing*
- b) *Spraying equipment*
- c) *Sprayer clean up*

### **3. Other factors influencing weed control**

- a) *Application time of day*
- b) *Effect of climate*
- c) *Weed coverage*
- d) *Weed density*
- e) *Weed stage*
- f) *Weed emergence after application*

### **4. Compatibility**

### **5. Crop safety**

### **6. Crop rotation recommendations**

It is important that all parts of the **General Instructions** are read in conjunction with the **Directions for Use table**.

#### **1. Adjuvant/Crop oil/Surfactant/Wetting agent**

Spray grade liquid ammonium sulfate or a recommended crop oil must be used in conjunction with Precept or Precept tank mixtures with other products in cereals. Recommended adjuvants include spray grade liquid ammonium sulphate at 500 grams active ingredient/ha or the crop oil Haste<sup>®</sup> (0.5 to 1% v/v), Supercharge<sup>®</sup> at 0.75% v/v or Uptake<sup>®</sup> at 0.5% v/v. The use of Haste at 0.5% v/v may reduce speed of control compared to Haste at 1% v/v. Consult Bayer Crop Science for information on other adjuvants.

DO NOT use non-ionic surfactants, e.g., BS 1000 unless tank mixing with Hussar<sup>®</sup> OD. For mixtures with compatible products refer to the table **Adjuvant Recommendation with Compatible Products** in the **Compatibility** section (section 4) below.

#### **2. Application**

Ensure that complete and even spray coverage of all weeds is achieved.

**Please refer also to the SPRAY DRIFT RESTRAINTS and MANDATORY NO-SPRAY ZONES within the DIRECTIONS FOR USE section of this label.**

##### **a) Mixing**

Half fill the spray tank with water, then with agitators in motion, add any compatible granular products if required, then add the correct amount of Precept Selective Herbicide directly into the spray tank. Add other relevant compatible herbicides, then adjuvant or crop oil as recommended. Complete filling the tank with agitators in motion. Agitation must continue before and during spraying.

##### **b) Spraying equipment**

**Ground sprayers** – Standard boom sprayers only are recommended and must be fitted with by-pass or mechanical agitation. It is recommended that 50 to 100 L water/ha is applied. However, in the case of advanced weeds (greater than 4 leaf at application), heavy weed density (causing shading of weeds) or heavy crop canopy

(causing shading of weeds), it is recommended that a spray volume in the range 70 – 150 L water/ha is used as adequate coverage is critical to ensure control.

The use of a nozzle that will deliver a MEDIUM spray quality is recommended.

**Aerial application** – Apply in a minimum of 30 L water per hectare.

Effective weed control will only be achieved where good coverage of each weed leaf surface is achieved, on actively growing weeds. Weed size needs to be considered in conjunction with weed density. If an aerial application of Precept is to be considered, then treat target weeds at the earliest possible growth stage.

The rate of Precept should be increased (up to a maximum of 2.0 L/ha) to improve reliability when applying with aircraft. Use a recommended spray oil as the adjuvant rather than ammonium sulphate when applying by aircraft.

DO NOT spray too high above the ground.

**Misters** – DO NOT apply Precept through a mister.

### c) Sprayer clean up

The sprayer must be thoroughly cleaned before being used again to spray crops other than winter cereals.

**Warning:** The rubber components present in some spraying units have shown they may be affected by exposure to undiluted Precept. To reduce the risk of the rubber components of the spraying unit being adversely affected by exposure to the product, it is recommended that the spray unit be thoroughly cleaned after each use.

Cleaning procedure: Ensure that the following operation is carried out in an area that is clear of waterways, desirable vegetation and tree roots, and preferably in an area where drainings can be contained.

Fill the boom tank with water, rinse and repeat this procedure (i.e., fill and rinse the tank twice) then remove and clean all filters (inline and nozzle) separately. A boom cleaner should be used in this process to provide an effective cleaning technique for Precept. This should be done immediately after spraying is finished to prevent dried residues adhering to the tank/lines/filters.

When a tank mixture of Precept with a compatible product has been used, more rigorous cleaning of the sprayer may be required than when using Precept alone. Refer to the compatible product label for appropriate instructions in this event.

## **3. Other factors influencing weed control**

### a) Application time of day

Optimum performance of Precept occurs when it is applied in warmer temperatures with good light intensity. To maximise efficacy apply Precept during the day, at least 1 hour before sunset, particularly if followed by low overnight temperatures.

### b) Effect of climate

Activity of Precept Selective Herbicide will be reduced if weeds are stressed. Optimum results will be obtained if good temperature, good light intensity and good soil moisture exists at application.

### Rainfast period

DO NOT use if rainfall or irrigation is to occur within 2 hours of application.

### Temperature

DO NOT apply to frost affected weeds or if frosts are imminent.

The use of Precept Selective Herbicide at 2 L/ha may provide better control of weeds during frosty periods.

### c) Weed coverage

Reduced control will occur where target weeds overlap each other, non-target weeds overlap the target weed, ground or standing stubble impedes excellent coverage or crop impedes excellent coverage of all target weeds. Increasing the Precept rate up to 2 L/ha will improve control in most situations.

Because weed overlap may cause shading of weeds lower in the plant canopy or other factors may impede excellent herbicide leaf contact, a follow up application of a suitable herbicide may be required to control plants remaining after an application of Precept.

#### d) Weed density

For reliable control good contact must be made with each plant. High weed density may cause shading of plants lower in the weed canopy. In dense weed or crop stands a follow up application of a suitable herbicide may be required to control remaining plants.

DO NOT use the minimum specified rate where excellent coverage of each weed through the canopy is not possible. For dense weed populations, increasing the rate to 2 L/ha will improve control in most situations. Because high weed density may cause shading of weeds lower in the plant canopy a follow up application of a suitable herbicide may be required to control plants remaining after an application of Precept.

Where crop or weed density is high, water volume should be increased as recommended in the **Application** section (section 2) above.

#### e) Weed stage

Apply when weeds are actively growing. In most situations the rate specified for each weed size will give satisfactory control. Under certain conditions such as:

- \*high crop or weed density
  - \*later germinations
  - \*abnormal weed growth including early flowering
- higher rates of Precept Selective Herbicide up to 2 L/ha may be required.

Precept Selective Herbicide may not effectively control:

- \* regrowth of suppressed weeds;
- \* transplanted weeds;
- \* weeds growing under stress from previous herbicide applications.

#### f) Weed emergence after application

Precept Selective Herbicide will not reliably control following germinations of weeds. A follow up application of a suitable herbicide may be required to control remaining plants or plants that emerge after application. The use of Precept Selective Herbicide at 2 L/ha will provide better control of weed emergence following application.

### **4. Compatibility**

Observe the more rigorous of the recommended crops and crop safety restrictions for the Precept and companion herbicide labels when tank mixing.

When mixing with other herbicides increased crop effects may occur. Under normal growing conditions this should not result in any yield loss due to Precept.

Mix partner	Mix rate	Critical comments
<b>Broadleaf herbicides</b>		
Ally®	5 g/ha	Precept at 1 L/ha as a mix partner. Crop effects (discolouration and slowed rate of growth) may be increased when Ally is tank mixed with Precept at 1 L/ha plus Hasten at 1% v/v. Under normal growing conditions this should not result in any yield loss. Observe crop safety restrictions on the Ally label. DO NOT apply Ally plus Precept in oats.
Lontrel® 750 SG	30 to 60 g/ha	No loss of efficacy or adverse crop effects
<b>Annual ryegrass herbicides</b>		
Atlantis®	Label rates	Precept at 1 L/ha as a mix partner - Atlantis will provide suppression of annual ryegrass only.
Achieve®	Label rates	Precept at 1 L/ha as a mix partner - some reduction in efficacy and the speed of action of these products may occur.
Cheetah® Gold	Label rates	
Decision®	Label rates	
Axial®	300 mL/ha plus Adigor at 0.5% v/v	Physically compatible.

Mix partner	Mix rate	Critical comments
<b>Wild oat herbicides</b>		
Achieve	Label rates	Precept at 1.0 L/ha as a mix partner - some reduction in efficacy and the speed of action of these products may occur.
Atlantis	Label rates	
Cheetah Gold	Label rates	
Topik®	Label rates	
Hussar®	200 g/ha	Physically compatible.
Axial	300 mL/ha plus Adigor at 0.5% v/v	
<b>Insecticides</b>		
Le-mat® 290 SL	100 mL/ha	These insecticides are physically compatible with Precept but have not been tested for biological compatibility.
Decis Options®	500 mL/ha	
Dimethoate	85 mL/ha	
Bulldock® Duo	1.0 L/ha	
<b>Fungicides</b>		
Amistar® Extra	up to 800 mL/ha	Note: With Amistar Extra, constant agitation is required or irreversible settling will occur. All fungicides listed here are physically compatible with Precept but have not been tested for biological compatibility.
Tilt® Extra	500 mL/ha	
Opus® 125 SC	500 mL/ha	

#### Adjuvant recommendation with compatible products

Precept mix-partner	Recommended surfactant/adjuvant	Critical comments
Achieve	Supercharge 0.75% v/v	DO NOT use BS1000 or a non-ionic wetting agent when Precept is applied alone or with any other product as reduced efficacy or speed of kill may result.
Ally	Hasten 1% v/v	
Atlantis	Hasten 1% v/v	
Cheetah Gold	Hasten 1% v/v	
Decision	Hasten 1% v/v or Uptake 0.5% v/v	
Hussar	Hasten 1% v/v	
Topik	Hasten 0.5% v/v	

For advice on the compatibility of other products, contact the manufacturer, Bayer Crop Science.

#### 5. Crop safety

Precept Selective Herbicide generally shows good crop selectivity when used as directed. The following will help minimise crop effects.

##### **Selective crops**

- DO NOT apply to crops undersown with legumes or to broadleaf pastures.
- DO NOT apply to any crop other than wheat, barley, oats, cereal rye or triticale.
- DO NOT apply to hay crops unless boom overlap growth reduction is accepted.
- DO NOT apply Ally plus Precept in oats.

##### **Recommended growth stage**

- Precept Selective Herbicide contains MCPA 2-ethylhexyl ester. Wheat, oat, triticale and cereal rye should be at minimum 3 leaf stage (Z13 growth stage), before application of Precept Selective Herbicide. Barley should be at minimum 5 leaf stage (Z15 growth stage), before application of Precept Selective Herbicide. Consult your local agronomist for the latest advice on varieties which require later growth stage applications to avoid the effects of MCPA.
- DO NOT apply later than Z31 (first node).

## **Agronomic and environmental factors**

- Some crop yellowing and growth retardation may occur within 2 to 5 weeks of application. Where Precept Selective Herbicide up to 2 L/ha is applied, any effects will be negligible and rapidly dissipate except in areas of boom overlap. In boom overlap areas, growth retardation may occasionally remain until spring. Grain yield will not be compromised.
- Growth retardation and discolouration may be increased if the crop is affected by root disease, (e.g., cereal cyst nematode, rhizoctonia, take-all (haydie)), nutritional stress, waterlogging, drought stress, excessively cold conditions or previous herbicide treatment.
- DO NOT apply to cereals that are physically damaged (e.g., by hail, wind, insect attack).
- DO NOT apply to crops not actively growing, e.g., due to cold and wet conditions or drought stress.
- Crop effects (discolouration and slowed rate of growth) may be increased when Ally is tank mixed with Precept at 1.0 L/ha plus Hasteen at 1% v/v. Under normal growing conditions this should not result in any yield loss. Observe crop safety restrictions on the Ally label.

## **6. Crop rotation recommendations**

Minimum re-cropping intervals apply for all crops following Precept Selective Herbicide application.

Recropping intervals are dependent on the rate of product applied. Areas that receive double rates (boom overlaps) may show symptoms of damage in sensitive crops. This is generally restricted to discolouration (bleaching) of the crop but may also result in biomass reduction or reduced yields in some situations.

For advice on crops not listed below, contact the manufacturer, Bayer Crop Science.

### **Rainfall/irrigation –winter and summer recropping**

For crops listed as requiring a minimum amount of rainfall or irrigation in combination with a set recropping interval; rainfall and irrigation totalling less than the stated amount in the tables below following use of Precept may result in an extended recropping interval; patchy rain, with extended dry periods may also result in an extended recropping intervals, even when rainfall exceeds the minimum stated. If in doubt, seek specialist advice.

### **Dry conditions or less than the recommended minimum rainfall and irrigation**

Where less than the minimum rain has fallen between application and planting the next year, it is recommended to only plant a cereal.

### **pH**

Application to soils with a pH greater than 8.4 (soil in water) has not been tested and is not recommended. Recropping symptoms are reduced on acid soils (pH < 6.5 soil in water, pH < 6.0 in CaCl<sub>2</sub>).

### **Tank mixture with other herbicides**

In the event that a tank mixture of Precept and another herbicide has been used, the longer recropping interval of the tank mix products should be observed for the crop in question.

Crop – winter sown	Precept rate applied	Minimum rainfall/irrigation required	Recropping Interval
Wheat, barley, oats, triticale	up to 2 L/ha	-	3 weeks
Canola, clover*, chickpea, faba bean*, field pea, lentil*, lucerne, lupin, vetch	1 L/ha	250 mm	9 months
Alkaline or neutral soils Canola, chickpea, field pea, lucerne, lupin, vetch	2 L/ha**	250 mm	
Acid soils (pH < 6.5 in water, pH < 6.0 in CaCl <sub>2</sub> ) Canola, chickpea, clover, faba bean, field pea, lentil, lucerne, lupin, medic, vetch	2 L/ha	250 mm	
Alkaline soils Lentil, medic Note: On soils with free limestone do not use Precept above 1 L/ha unless substantial biomass reduction (medic) or discolouration (lentil, medic) is accepted in areas of boom overlap	2 L/ha (see note in Crop column)	500 mm	21 months

For winter recropping, transient biomass reduction or discolouration may occur where recropped following Precept application. When used as directed grain yield is not compromised where transient biomass reduction or discolouration occurs.

\*Where Precept at 1 L/ha is applied on alkaline soils, recropped areas that receive double rates (boom overlaps) may show increased symptoms of damage in crops such as clover, faba bean and lentil. This is generally restricted to discolouration (bleaching) of the crop but may also result in biomass reduction or reduced yields in some situations.

\*\*Where Precept at 2 L/ha is applied on alkaline soils, recropped areas that receive double rates (boom overlaps) may show increased symptoms of damage in crops such as canola, field pea, lentil, lupin, medic and vetch. This is generally restricted to discolouration (bleaching) of the crop but may also result in biomass reduction or reduced yields in some situations.

Crop – summer sown	Precept rate applied	Minimum rainfall required	Recropping interval
Maize, sorghum	up to 2 L/ha	-	8 weeks
Cotton, soybean, sunflower	up to 1 L/ha	300 mm	14 months
Mung bean	up to 2 L/ha***	300 mm	14 months
Cotton, soybean, sunflower	up to 2 L/ha***	500 mm	14 months

For summer recropping, transient biomass reduction or discolouration may occur where recropped after Precept application. When used as directed grain yield is not compromised where transient biomass reduction or discolouration occurs.

\*\*\*Where Precept at 2 L/ha is applied, recropping areas that receive double rates (boom overlaps) may show increased symptoms of damage. This is generally restricted to discolouration (bleaching) of the crop but may also result in biomass reduction in some situations.