



Product Name: Roundup Xtend 2 Herbicide with VapourGrip Technology
APVMA Approval No: 93140/147346

Label Name:	Roundup Xtend 2 Herbicide with VapourGrip Technology
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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 CONSTITUENTS: 320 g/L GLYPHOSATE PRESENT AS THE MONOETHANOLAMINE SALT 160 g/L DICAMBA PRESENT AS THE MONOETHANOLAMINE SALT
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Mode of Action:	GROUP 9 4 HERBICIDE
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Statement of Claims:	For the control of certain broadleaf and grass weeds in XtendFlex cotton
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Net Contents:	5 - 1000 L
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Restraints:	This section contains file attachment.
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	WITHHOLDING PERIODS Harvest (H): DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION Grazing (G): DO NOT FEED COTTON FODDER, STUBBLE OR TRASH TO LIVESTOCK
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Trade Advice:	EXPORT OF TREATED PRODUCE Growers should note that MRLs or import tolerances may not exist in all markets for cotton seed grown from cotton crops treated with ROUNDUP XTEND 2 Herbicide with VapourGrip Technology. If you are growing cotton for seed export, please check with Bayer Crop Science for the latest information on MRLs and import tolerances before using ROUNDUP XTEND 2 Herbicide with VapourGrip Technology.
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General Instructions:	This section contains file attachment.
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Resistance Warning:	<p>RESISTANT WEEDS WARNING GROUP 9 4 HERBICIDE</p> <p>ROUNDUP XTEND 2 Herbicide with VapourGrip Technology is a combination of the glycine and benzoic acid group of herbicides. ROUNDUP XTEND 2 Herbicide with VapourGrip Technology has the inhibition of ESP Syntheses and the disruptor of plant cell growth modes of action. For weed resistance management, ROUNDUP XTEND 2 Herbicide with VapourGrip Technology is both a Group 9 and 4 Herbicide. Some naturally occurring weed biotypes resistant to ROUNDUP XTEND 2 Herbicide with VapourGrip Technology and other Group 9 and Group 4 Herbicides may exist through normal genetic variability in any weed population.</p> <p>The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by ROUNDUP XTEND 2 Herbicide with VapourGrip Technology or other Group 9 or Group 4 Herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Bayer accepts no liability for any losses that may result from the failure of ROUNDUP XTEND 2 Herbicide with VapourGrip Technology to control resistant weeds.</p> <p>Users of ROUNDUP XTEND 2 Herbicide with VapourGrip Technology over XTENDFLEX cotton must implement practices that minimise the development of resistance in treated weeds. Minimising this risk may best be achieved by following the integrated weed management strategy guidelines summarised below:</p> <ol style="list-style-type: none"> 1. Aim to enter the XTENDFLEX cropping phase of the rotation with a low weed burden. 2. Integrate as many different weed control options (chemical and cultural) as possible through all phases of the crop rotation. 3. Make every herbicide application count – use registered rates at the correct application growth stage and assess effectiveness. 4. Rotate herbicides with different modes of action throughout the crop rotation. 5. Regularly monitor the effectiveness of resistance management practices. 6. Test weed populations for herbicide resistance status as part of ongoing integrated weed management. 7. Growers should not plant XTENDFLEX crops in paddocks with populations of confirmed dicamba resistant weeds. <p>It is advised that consultation on Integrated Weed Management be undertaken with an accredited agronomist or program prior to use of ROUNDUP XTEND 2 Herbicide with VapourGrip Technology over XTENDFLEX cotton.</p> <p>More information on Integrated Weed Management can be found at: www.weedsmart.org.au.</p> <p>As with conventional varieties, volunteer and ratoon XTENDFLEX plants may occur in fallows, and non-cropping areas of a farm such as irrigation ditches, water storages, etc. These plants will not be controlled by ROUNDUP XTEND 2 Herbicide with VapourGrip Technology or other glyphosate (Group 9) or dicamba (Group 4) herbicides and should be controlled in both cropping and non-cropping areas. These plants are best managed with cultivation and/or the appropriate registered herbicides (see the Integrated Weed Management Strategy Guidelines above). Growers should ensure that they have an effective weed management strategy developed for the control of these weeds.</p>
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Users of ROUNDUP XTEND 2 Herbicide with VapourGrip Technology over XTENDFLEX cotton must allow Bayer or its agents to undertake audits or surveys as necessary to assess management by users of the development of dicamba resistance in target weeds.

RESISTANT WEEDS REPORTING

Users of ROUNDUP XTEND 2 Herbicide with VapourGrip Technology and Technology Service Providers (TSPs) are required to report any adverse events, such as suspected weed resistance, to Bayer as soon as it is identified. Weeds identified to have survived ROUNDUP XTEND 2 Herbicide with VapourGrip Technology must be controlled by an alternative strategy in order to prevent weeds from setting seed.

Precautions:	<p>PRECAUTION</p> <p>Re-entry Period</p> <p>Do not allow entry into treated areas until spray has dried. If 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.</p>
Protections:	<p>PROTECTION OF WILDLIFE, FISH CRUSTACEA AND ENVIRONMENT</p> <p>Toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.</p> <p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS</p> <p>Avoid spray drift and vapour movement onto susceptible crops such as cotton that does not contain the XtendFlex herbicide tolerance technology, flowers, tree nuts, fruit trees, lupins, ornamentals, tomatoes, vegetables, grape vines or any other field crop. DO NOT apply or drain or flush equipment on or near native or non-target trees or other plants or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots.</p> <p>INTEGRATED PEST MANAGEMENT</p> <p>Toxic to beneficial arthropods. Not compatible with integrated pest management (IPM) programs utilising beneficial arthropods. Minimise spray drift to reduce harmful effects on beneficial arthropods in non-crop areas.</p>
Storage and Disposal:	<p>STORAGE AND DISPOSAL</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 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 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.</p>

(1000 L container)

If tamper evident seals are broken prior to initial use then the integrity of the contents cannot be assured. The container must be vented before discharging contents. To empty connect a camlock fitted hose to the bottom valve. Remove top cap when discharging for venting purposes. When the container is empty, close all caps and valves and return the container to the point of purchase.

Safety Directions:

SAFETY DIRECTIONS

Will irritate the eyes. May irritate the skin. Avoid contact with eyes and skin. When opening the container and preparing the product for use, wear cotton overalls buttoned to the neck (or equivalent clothing), elbow-length chemical resistant gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves and face shield and contaminated clothing.

First Aid Instructions:

FIRST AID

If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

First Aid Warnings:

RESTRAINTS

DO NOT spray with aircraft.

DO NOT apply more than one (1) application per season.

DO NOT apply unless the pH of the spray solution is 5.2 or above.

DO NOT tank mix with products containing ammonium salts such as ammonium sulphate (AMS), urea ammonium nitrate, or herbicides containing glufosinate-ammonium, or ammonium salts of glyphosate. Small quantities of AMS can greatly increase the volatility potential of dicamba.

DO NOT apply when the temperature is 35°C or above or forecast within 3 days of application.

DO NOT apply in December, January or February.

DO NOT apply if heavy rains or storms are forecast within 3 days.

DO NOT irrigate to the point of field runoff from the treatment area for at least 3 days after application, unless all run-off can be captured on-farm.

DO NOT tank mix with products containing glyphosate.

DO NOT spray when rain seems likely to occur within 4 hours.

DO NOT spray when weeds are wet with dew or rain or under stress from drought, low soil fertility, extreme cold or water logging.

DO NOT apply to crops undersown with clover, lucerne or medics.

DO NOT apply within 20 metres of neighbouring crops on all sides of the treated field.

Products must only be used by applicators that have successfully completed the XtendFlex Cotton Spray Applicator Training. NOT to be used by uncertified persons working under the supervision of a certified applicator.

DO NOT apply unless VapourGrip Xtra Agent is also included in the spray mixture, as per the label of that product.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at 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 VERY COARSE 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	Boom height above the target canopy	Mandatory downwind buffer zones Vegetation areas
3.25 L/ha	0.5 m or lower	130 m

DIRECTIONS FOR USE**DIRECTIONS FOR USE TABLE**

SITUATION – IN CROP IN COTTON VARIETIES CONTAINING XTENDFLEX HERBICIDE TOLERANCE TECHNOLOGY (DOES NOT INCLUDE APPLICATION PRIOR TO PLANTING) Apply in a minimum of 100 L of spray solution/ha.

WEEDS CONTROLLED	RATE	CRITICAL COMMENTS
Peachvine, Fleabane	3.25 L/ha + 1% v/v VapourGrip Xtra Agent	Apply when weeds have 2 to 6 leaves.
Climbing buckwheat (less than 12 leaves), Couch, Johnson grass	3.25 L/ha + 1% v/v VapourGrip Xtra Agent	For Johnson grass apply to plants with a minimum of 30 cm new growth.
Annual ryegrass, African turnip weed, Annual ground cherry, Barnyard grass, Bathurst burr, Black pigweed, Bladder ketmia, Boggabri weed, Button grass, Caltrop (yellow vine), Camel (Afghan) melon, Caustic weed, Columbus grass, Deadnettle, Liverseed grass, Mexican poppy, Milk thistle (common sowthistle), Mintweed, Native millet, New Zealand spinach, Noogoora burr, Paradoxa grass, Pigweed (up to 25 cm diam.), Spear thistle, Stinkgrass (lovegrass), Sweet summer grass, Thornapple (datura), Turnip weed, Variegated thistle, Volunteer cereals, Volunteer sorghum, Wild oats, Wild/prickly lettuce, Wireweed	3.25 L/ha + 1% v/v VapourGrip Xtra Agent	Dense infestations of some weeds e.g. barnyard grass, liverseed (<i>Urochloa</i>) grass may need follow up treatments for complete control. When applied in tank mixtures with Dropp® UltraMax™ apply when at least 60% of bolls are open and immature bolls cannot be easily cut with a sharp knife, or where the seed coat in bisected bolls is black in colour. Where a leafy canopy limits spray coverage, reduced weed control can be expected. For best results under these conditions, delay application until canopy re-opens following initial conditioning treatment.

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

GENERAL INSTRUCTIONS

CROP SAFETY

After application to XTENDFLEX cotton some leaf spotting may occur. The development of the crop and subsequent growth will be unaffected.

MIXING

ROUNDUP XTEND 2 Herbicide with VapourGrip Technology mixes readily with water. Reduced results may occur if water used contains suspended clay or organic matter e.g. from dams, streams and irrigation channels, or high levels of calcium, magnesium or bicarbonate ions.

DO NOT mix, store or apply this product in galvanized steel or unlined steel containers or spray tanks, since a highly flammable gas mixture may be formed. Use stainless steel, aluminium, brass, copper, fiberglass, plastic or plastic lined containers or spray tanks. Spray tanks, pumps, lines and nozzles should be thoroughly cleaned with clean water following application. Ensure that the spray tank is free of any residue of other spray solutions prior to mixing. Use spray solutions promptly as a gradual loss of activity may occur over a period of days following spray preparation.

Mixing Order

1. Ensure application and mixing equipment are thoroughly clean and free of products containing ammonium ions prior to use.
 2. Fill the spray tank with three quarters of the required volume of clean water and start agitation.
 3. Add the required amount of VapourGrip Xtra Agent and agitate for 10 minutes.
 4. Agitation - Maintain constant agitation throughout mixing, transport and application.
 5. Buffer (when applicable). Do not use acidifying buffers or buffers containing ammonium ions, unless specifically recommended.
 6. Drift Reducing Adjuvants (DRA) (when applicable).
 7. Water-dispersible products (water dispersible granules (dry flowables), wettable powders, suspension concentrates, or suspo-emulsions).
 8. ROUNDUP XTEND 2 Herbicide with VapourGrip Technology with any other water-soluble products (when applicable)
 9. Emulsifiable concentrates (such as oil concentrate when applicable).
 10. Add remaining quantity of water.
- Maintain constant agitation until application is completed.

Clean equipment immediately after using this product, using a triple rinse procedure as follows:

1. After spraying, drain the sprayer (including boom and lines) immediately. Do not allow the spray solution to remain in the spray boom lines overnight prior to flushing.
2. Flush tank, hoses, boom and nozzles with clean water. If so equipped, open boom ends and flush.
3. Inspect and clean all strainers, screens and filters.
4. Prepare a cleaning solution with a commercial detergent or sprayer cleaner or ammonia according to the manufacturer's directions.
5. Take care to wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
7. Remove nozzles, screens and strainers and clean separately in the cleaning solution after completing the above procedures.
8. Drain pump, filter and lines.
9. Rinse the complete spraying system with clean water.
10. Clean and wash off the outside of the entire sprayer and boom.
11. All rinse water must be disposed of in compliance with Local, State or Territory guidelines.

Plantback periods:

Wait for the following periods before planting the following crops into soils sprayed with the product. At least 15 mm of rainfall is required before the plant back period begins.

If another herbicide is applied as a tank mix, observe the plant back restrictions on that label if they are longer. Note: If waterlogging occurs shortly after sowing, the product may cause some reduction in crop vigour. Use as directed only in the States indicated.

For irrigated cotton, wait for the following plant back periods listed in the table below before planting the corresponding crops into soils sprayed with the product. At least 15 mm of rainfall is required before the plant back period begins. Planting crops following applications to dryland cotton may require longer plant back

periods and/or interim rainfall. In some situations, there may be significant crop biomass reductions when winter crops are planted back after application of the product in dryland cotton.

Plantback Periods after spraying Roundup Xtend 2 herbicide in XtendFlex cotton

Rate/ha	Plant Back Period (days) #				
	Barley	Canola	Chickpeas	Oats	Wheat
3250 mL	35	56	56	35	35

#Plant back period only commences once a minimum of 15 mm of rainfall or irrigation has been received following application.