HERBICIDE

STOMP Xtra

HERBICIDE
Active Constituent: 455 g/L PENDIMETHALIN

GROUP D HERBICIDE

For the control of annual ryegrass and wireweed in wheat, barley and peas and annual grasses and certain broadleaf weeds in various crops as per the DIRECTIONS FOR USE table.

FEATURES	Breakthrough technology – capsule suspension (CS) formulation – water based product.
BENEFITS	Less staining, 30% more concentrated product, fewer drums to dispose of.
MODE OF ACTION	STOMP Xtra is a pre-emergence herbicide which is a member of the dinitroanaline group of herbicides. STOMP Xtra acts by inhibition of tubulin formation. This inhibition of tubulin formation prevents cell division within the plant. Stomp Xtra has no post-emergence activity.
PACK SIZES	20 L

U.N. Number	*Correct Shipping Name*	*Class*	*Subsidiary Risk*
Not Applicable	Not considered a Dangerous Good	Not Applicable	Not Applicable
HAZCHEM Code	***Poisons Schedule***	***Emergency Guide***	***Packaging Group***
Not Applicable	5	Not Applicable	Not Applicable

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

STOMP XTRA

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For the control of annual ryegrass and wireweed in wheat, barley and peas and annual grasses and certain broadleaf weeds in various crops as per the DIRECTIONS FOR USE table.

GENERAL INSTRUCTIONS

STOMP Xtra Herbicide is a selective herbicide for the control of most annual grasses and certain broadleaved weeds.

STOMP Xtra controls weeds by inhibiting seedling development; it will not control established weeds.

For best results, seedbeds should be free of weeds, trash and clods at the time of application.

Soils containing a high percentage of organic matter can result in poor control. It is recommended that application to soils containing a high percentage of organic matter (greater than 6%) be avoided. Crop injury may result if cold, wet weather follows planting or if STOMP Xtra is applied to a poorly prepared seedbed. With the return of favourable growing conditions (warm weather), the crop will usually recover and resume normal growth.

Caution: prolonged periods of rainfall and/or excessive soil moisture at or following application may delay breakdown of STOMP Xtra capsules, resulting in loss of weed control.

MIXING

Shake, invert or roll container several times before use. Put half the required volume of water in spray tank and start agitation. When using STOMP Xtra alone, add STOMP Xtra to partially filled tank and then add the remainder of the water. Mix thoroughly.

When using STOMP Xtra in tank mixes with products such as atrazine or diuron, mix these products as indicated on the relevant label and add the STOMP Xtra last, then complete filling of the tank. Maintain good agitation at all times until spraying is completed. If the spray mixture is allowed to settle, thorough agitation is essential to re-suspend the mixture before spraying is resumed.

Note that when tank mixing STOMP Xtra with paraquat and glyphosate herbicides, the STOMP Xtra should be thoroughly mixed in the spray tank first, before adding a paraquat or glyphosate product.

APPLICATION METHOD

Ground Application: Use conventional sprayers with either mechanical or by-pass agitation. Flat fan nozzles should be used. Spray equipment should be correctly calibrated to ensure proper application. If applying STOMP Xtra in tank mix combination with atrazine or diuron, nozzle screens must be no finer than 50 mesh. Apply the recommended quantity of STOMP Xtra in 50-200 litres of water per hectare. Where pre-emergence surface treatment is used, the higher rates of water are recommended.

Aerial Application: Pre-plant soybeans, cotton, sunflowers, peanuts, navy beans, cow peas, mung beans, pigeon peas and post-plant, post flushed combine sown rice only.

Apply the recommended quantity of STOMP Xtra in 25-60 litres of water per hectare. It is essential that the equipment is correctly calibrated and an even spray pattern is obtained.

It is essential that markers be used and an accurate swath width is maintained. Do NOT apply if wind speed is greater than 16 km/hour.

Always spray with a cross wind in accordance with recommended flying practice.

Do NOT apply STOMP Xtra Herbicide by aerial spraying in eucalypt forestry situations.

INCORPORATION

(a) STOMP Xtra works best if thoroughly mixed with soil either mechanically or by irrigation or rainfall. The aim of incorporation is to produce an even band of herbicide to intercept germinating weed seeds.

(b) Post-plant pre-emergence surface applications of STOMP Xtra alone, or as a tank mixture, are most effective in controlling weeds when adequate rainfall occurs or irrigation is applied within 7 - 10 days after treatment to achieve incorporation. If no rain or irrigation is received within 7-10 days, light mechanical incorporation is required for optimum weed control, except when used on maize, carrots and rice.

(c) Maize is tolerant to STOMP Xtra either alone or in mixtures with atrazine if the seed germinates below the chemically treated band. Maize, carrots and rice are NOT tolerant to STOMP Xtra if it is in direct contact with the seed.

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CEREAL SEED DRESSINGS

Some fungicidal seed dressings can shorten coleoptile length and this can affect emergence particularly if seed is sown too deep. When these cereal seed dressings are used in STOMP Xtra treated areas it is very important to ensure there is good seed depth control and to sow just below (1 cm) the chemically treated band. Consult your local Department of Agriculture Agronomist for further advice.

WEATHER CONDITIONS AT PLANTING

Crop injury may result if cold weather follows planting. With the return of favourable growing conditions (warm weather), crops usually recover and resume normal growth. In cereals, prolonged cold wet conditions during germination and emergence can result in wheat or barley coleoptiles remaining in the treated band for an extended period. This can reduce emergence.

RESISTANT WEEDS WARNING

STOMP Xtra Herbicide is a member of the dinitroaniline group of herbicides. STOMP has the inhibition of tubulin formation mode of action. For weed resistance management, STOMP is a Group D herbicide. Some naturally-occurring weed biotypes resistant to STOMP and other Group D 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 STOMP or other Group D herbicides.

GROUP **D** HERBICIDE

Since the occurrence of resistant weeds is difficult to detect prior to use, BASF Australia Ltd accepts no liability for any losses that may result from the failure of STOMP to control resistant weeds.

COMPATIBILITY

Physical compatibility of STOMP Xtra has been tested with the following herbicides:

Atrazine, diuron, simazine, prometryne, fluometuron , fluometuron plus prometryne, ametryne, paraquat, propanil, linuron, glyphosate, Ramrod® Flowable and Logran®. If tank mixing, observe the directions under mixing.

FOLLOWING CROPS

In the event of crop failure the soil should be cultivated to a minimum depth of 15cm to ensure any residues are evenly dispersed throughout the soil.

If a maize crop fails due to weather conditions or some other reason, maize can be replanted the same year without adverse effects but seeding depth must be below the retilled area.

The following crops may be sown after a minimum interval of 2 months after application of STOMP Xtra:

Carrots, parsnips, parsley, celery, potatoes, peas, French beans, transplanted brassicas, transplanted lettuce, transplanted tomatoes, transplanted capsicums.

The following crops may be sown after a minimum interval of 5 months after application of STOMP Xtra:

Turnips, lettuce, radish, Brussels sprouts, cabbage, cauliflower, broccoli, onions, leeks, sweetcorn, pumpkins, squash, melons, cucumbers.

The following crops may be sown after a minimum interval of 12 months after application of STOMP Xtra:

Redbeet (beetroot), spinach, silverbeet, poppy.

PRECAUTION

Re-entry period

Do NOT allow entry into treated areas for 12 hours. 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.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

Do NOT apply under meteorological conditions or from spraying equipment which could be expected to cause spray to drift onto nearby susceptible plants, adjacent crops, crop lands or pastures.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish and other aquatic life.

Do NOT contaminate dams, rivers, drains or streams with chemical or used containers.

STORAGE AND DISPOSAL

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

Do NOT dispose of undiluted chemicals on-site.

The method of disposal of the container depends on the container type. Read the "Storage and Disposal" instructions on the label that is attached to the container.

SAFETY DIRECTIONS

Will irritate the eyes. Avoid contact with eyes. Wash hands after use. When preparing and using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length PVC gloves. After each day's use, wash gloves and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Telephone 131126 Australia-wide.

MSDS

Additional information is listed in the Material Safety Data Sheet.

CONDITIONS OF SALE: All conditions and warranties rights and remedies implied by law or arising in contract or tort whether due to the negligence of BASF Australia Ltd. or otherwise are hereby expressly excluded so far as the same may legally be done provided however that any rights of the Buyer pursuant to non excludable conditions or warranties of the Trade Practices Act 1974 or any relevant legislation of any State are expressly preserved but the liability of BASF Australia Ltd. or any intermediate Seller pursuant thereto shall be limited if so permitted by the said legislation to the replacement of the goods sold or the supply of equivalent goods and all liability for indirect or consequential loss or damage of whatsoever nature is expressly excluded. This product must be used or applied strictly in accordance with the instructions appearing hereon. This product is solely sold for use in Australia and must not be exported without the prior written consent of BASF Australia Ltd.

NRA Approval No.: 52757

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DIRECTIONS FOR USE

RESTRAINTS: Do NOT sow sensitive summer crops such as sorghum and millets within 12 months of application of STOMP Xtra.
Do NOT apply to a poorly prepared seedbed.
Do NOT use STOMP Xtra mixed with atrazine on heavy clay soils.
Do NOT apply STOMP Xtra where waterlogging is likely to occur.

CROP	WEEDS CONTROLLED	STATES	RATE/ TREATED ha	CRITICAL COMMENTS
1. PRE-PLANT INCORPORATED TREATMENT (DOUBLE INCORPORATION)				
Cotton	See Weed Table A	Qld, NSW only	2.2 L/ha	Incorporate into the soil within 24 hours of application. Use a combine with trailing harrows and chain or offset or tandem discs or Lilliston cultivators, set to work to a depth of 2-5cm. Subsequent planting operations in irrigated cotton may remove the STOMP Xtra treated soil from hills leaving an untreated band over the row, requiring a further application of STOMP Xtra or other herbicides in that band. When the seedbed is rough, a second incorporation is necessary. STOMP Xtra may be applied by aerial or ground spraying. In the Macquarie Valley area, only apply by air when ground is too wet for ground application. (Refer note on “Incorporation” (a)). Use the higher rate on heavy textured soils or those high in organic matter and the lower rate on light to medium textured soils.
Cow peas, mung beans, navy beans, peanuts, pigeon peas and soybeans	See Weed Table A	Qld, NSW, NT only	1.8 to 2.2 L/ha	
Sunflowers	See Weed Table A	Qld, NSW, Vic, SA, Tas only		
Barley and wheat	Annual ryegrass (*Lolium rigidum*), wireweed (*Polygonum aviculare*), wild oats * (*Avena* spp.) * Suppression only	All States	870 mL/ha	Incorporate into the soil within 24 hours of application. (Refer note (a) under “Incorporation”). Use weighted harrows at 8-13 km/hr followed by a cross working with a combine set to work at a depth of 2-5 cm at 8-13 km/hr. Application to heavier soil types which have poor structural characteristics or are poorly worked may result in insufficient and uneven incorporation and unsatisfactory weed control. Heavy soils which are cloddy or have a surface crust or surface seal should be avoided. Attempting to incorporate STOMP Xtra when soils are very wet or very dry may also result in insufficient mixing and therefore poor weed control. Wheat and barley seed must be sown approximately 1 cm beneath the chemically treated band or reduced emergence may occur. Refer sections "Cereal Seed Dressings" and "Weather Conditions at Planting", under GENERAL INSTRUCTIONS, for further information on emergence. If wild oats are expected to be a problem use a wild oat herbicide.
Field peas	Annual ryegrass (*Lolium rigidum*), wireweed (*Polygonum aviculare*), wild oats * (*Avena* spp.) * Suppression only	Southern NSW, Vic, Tas, SA, WA only	1.5 L/ha	Incorporate into the soil within 24 hours of application. Use weighted harrows at 8-13 km/hour followed by a cross-working with a combine set to work at a depth of 2-5 cm at 8-13 km/hr. Seed should be sown below the chemical band. Use cover harrows behind the combine. (Refer note (a) under "Incorporation"). Use a wild oat herbicide if wild oats are expected to be a problem.

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CROP	WEEDS CONTROLLED	STATES	RATE/ TREATED ha	CRITICAL COMMENTS
Chickpeas, faba beans, lupins and safflower	Annual ryegrass, wireweed, wild oats * * Suppression only	Qld, northern NSW, Tas◆ only	1.8 to 2.2 L/ha	Incorporate into the soil within 24 hours of application . Use weighted harrows at 8-13 km/hr followed by a cross working with a combine set to work at a depth of 2-5 cm at 8-13 km/hr. Seed should be sown below the chemical band. Use cover harrows behind the combine. (Refer note (a) under "Incorporation"). Use the higher rates on medium to heavy textured soils and the lower rates on light textured soils. Heavy soils which are cloddy or have a surface seal should be avoided. Attempting to incorporate STOMP Xtra when soils are very wet or very dry may also result in insufficient mixing and therefore poor weed control. If wild oats are expected to be a problem use a wild oat herbicide. ◆**Lupins:** In Tasmania, use only on species *Lupinus angustifolius.* Do NOT use on *L. albus.*
2. PRE-PLANT APPLICATION (INCORPORATED BY THE SOWING PROCESS)				
Barley and wheat	Annual ryegrass, wireweed, wild oats * * Suppression only	All States	1.3 L/ha	**Barley and wheat:** Where full (double) incorporation is impractical and where the seedbed tilth is fine and free of large stones and trash, apply STOMP Xtra up to 24 hours prior to sowing. Incorporate with the combine set to sow to a depth of 3-5 cm. Use trailing harrows. (Refer note (a) under "Incorporation".). In minimum till situations, only light incorporation will occur due to soil displaced by the points. Trailing harrows should be used to provide better incorporation and weed control. Avoid heavy trash situations which may result in uneven application and incorporation, leading to reduced weed control. Wheat and barley seed must be sown at least 1 cm beneath the chemically treated band or reduced emergence may occur. Refer sections "Cereal Seed Dressings" and "Weather Conditions at Planting", under GENERAL INSTRUCTIONS, for further information on emergence. **Canola:** Apply STOMP Xtra up to 24 hours prior to sowing. Ensure that STOMP is well incorporated. Sow canola with a seeding depth of 1-3 cm, at the appropriate depth for conditions Canola seed can be placed within the treated band. Use the higher rates on medium to heavy textured soils and the lower rates on light textured soils. **NOTE:** Development of water-logged conditions after the application of STOMP Xtra may retard the emergence of canola . If wild oats are expected to be a problem use a wild oat herbicide. Application to heavier soil types which have poor structural characteristics or are poorly worked may result in insufficient and uneven incorporation and unsatisfactory weed control. Heavy soils which are cloddy or have a surface crust or surface seal should be avoided. Attempting to incorporate STOMP Xtra when soils are very wet or very dry may also result in insufficient mixing and therefore poor weed control.
Canola	Annual ryegrass, wireweed, wild oats * * Suppression only	Southern NSW, Vic, SA, WA, Tas only	1.3 to 2.2 L/ha	
	Silvergrass * (*Vulpia* spp.) * Suppression only		1.5 to 2.2 L/ha	

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CROP	WEEDS CONTROLLED	STATES	RATE/ TREATED ha	CRITICAL COMMENTS
Chickpeas, faba beans, field peas, lupins and safflower	Annual ryegrass, wireweed, silvergrass * (*Vulpia* spp.), wild oats * * Suppression only	Southern NSW, Vic, SA, WA only	1.5 to 2.2 L/ha	Where full (double) incorporation is impractical and where the seedbed tilth is fine and free of large stones and trash, apply STOMP Xtra or in the case of lupins, STOMP Xtra plus simazine, up to 24 hours prior to sowing. Incorporate with the combine set to sow to a depth of 3-5 cm. Use trailing harrows. (Refer note (a) under "Incorporation".) Application to heavier soil types which have poor structural characteristics or are poorly worked may result in insufficient and uneven incorporation and unsatisfactory weed control. Heavy soils which are cloddy or have a surface crust or a surface seal should be avoided. Attempting to incorporate STOMP Xtra when soils are very wet or very dry may also result in insufficient mixing and therefore poor weed control. Refer to section on "Weather Conditions at Planting", under GENERAL INSTRUCTIONS, for further information on emergence. If wild oats are expected to be a problem use a wild oat herbicide. Use the higher rates on medium to heavy textured soils and the lower rates on light textured soils.
Lupins		WA only	1.5 L/ha plus simazine at 500 g ai/ha	
		NSW, Vic, SA only	1.5 L plus simazine at 1.5 kg ai/ha	
3. POST-PLANT PRE-EMERGENCE SURFACE TREATMENT (OVERALL OR BAND SPRAYING): NON-MECHANICAL INCORPORATED				
Cotton	See Weed Table B	Qld, NSW only	3.3 L/ha	**Cotton:** Where incorporation prior to sowing is impractical and where the seedbed tilth is fine and free of large stones and trash, STOMP Xtra should be applied within 48 hours after sowing. **Sunflowers:** Where incorporation prior to sowing is impractical and where the seedbed tilth is fine and free of large stones and trash, STOMP Xtra should be applied after sowing and before the emergence of the crop and weeds. Where fat hen or blackberry nightshade is expected to be a major problem, pre-plant incorporation (No. 1 application method), is preferred. (Refer section on "Incorporation" (a) and (b)).
Sunflowers		Qld, NSW, SA only		
Broad beans	Poppies, wireweed (*Polygonum aviculare*)	Tas only	2.9 L/ha	**MINIMUM PLANTING DEPTH:** **Carrots:** 15 mm **Processing peas, broad beans and French beans:** 30 mm Seed should be sown with press wheels or rollers behind the planter in order to ensure coverage of the seed and compaction of the seed bed. Apply STOMP Xtra to a fine firm seedbed free of ridges, clods and trash within 2 days after sowing. Use the higher rates on heavier textured soils or those with a higher organic matter content. Incorporate with 12 to 25 mm of spray irrigation or rainfall applied within one day of application for optimum performance. Do NOT disturb the soil by rolling or harrowing after STOMP Xtra has been applied. Do NOT apply where heavy rainfall or irrigation is likely to lead to water logging. Do NOT use STOMP Xtra on soils with an organic matter content above 6% as inconsistent weed control will occur. **French Beans:** For Qld, use in the Lockyer and Fassifern valleys only. Do NOT apply to French beans sown during the autumn, winter or early spring or which are likely to be stressed by cold weather.
Carrots	See Weed Table D	Qld, NSW, Vic, SA, Tas, WA only	1.5 to 2.2 L/ha	
	Weed Table D plus sowthistle (*Sonchus oleraceus*), wild radish (*Raphanus raphanistrum*)		1.5 L/ha plus linuron at 1.0 kg ai/ha	
French beans	See Weed Table D	Qld, Tas only	2.2 to 2.9 L/ha	
Processing peas		Qld, Vic only	1.5 to 2.9 L/ha	
		Tas only	2.9 L/ha	

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CROP	WEEDS CONTROLLED	STATES	RATE/ TREATED ha	CRITICAL COMMENTS
Maize	See Weed Table B	Qld, NSW, NT only	3.3 L/ha	Where grasses are expected to be the major problem, this treatment is recommended – STOMP Xtra alone. Apply STOMP Xtra after planting and before emergence of crop and weeds. Do NOT incorporate this treatment. Avoid application in dry weather; this may cause pruning of aerial roots and lodging. (Refer sections on "Incorporation" (b) and (c)).
	See Weed Table C		2.2 L/ha plus atrazine at 1.0 kg ai/ha	Where thornapple, Noogoora burr, Bathurst burr, caltrop, paddy melon or mintweed are expected to be the major problems, STOMP Xtra should be applied in a tank mix combination with atrazine after planting and before the emergence of crop and weeds. Do NOT incorporate this mixture. Follow directions on atrazine label carefully. This treatment should not lead to soil residue problems with atrazine as the application rate is low. Do NOT use STOMP Xtra mixed with atrazine on heavy clay soils as weed control may not be adequate. (Refer section on "Incorporation" (b) and (c)).
Onions	Hogweed (wireweed) (*Polygonum aviculare*)	Tas only	540 mL to 725 mL/ha	Apply in conjunction with other herbicides as advised by a qualified crop adviser to ensure that an adequate level of weed control is achieved in adverse conditions. **Pre-emergence:** Do NOT use on sandy soils. **MINIMUM PLANTING DEPTH:** 15 mm Apply from immediately after sowing until just prior to emergence. Apply STOMP Xtra to a fine, firm seedbed free of clods and trash. Use the higher rates on heavy textured soils or those with a high organic matter content. For optimum performance, incorporate with 12 to 25 mm of spray irrigation within one day of application. Do NOT exceed 0.75 L/ha if soil conditions are wet and cold.
			725 mL to 1.5 L/ha	**Post-emergence:** Apply STOMP Xtra from the first true leaf until the 3 leaf stage. Repeat applications may be made after the 1 leaf up to the 3 leaf stage providing total usage of STOMP Xtra on crop does not exceed 3 L/ha. Avoid applying STOMP Xtra to areas where water logging is likely to occur.

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CROP	WEEDS CONTROLLED	STATES	RATE/ TREATED ha	CRITICAL COMMENTS
4. POST-PLANT PRE EMERGENCE TREATMENT (INCORPORATED OR NON-INCORPORATED)				
Sugarcane	Awnless barnyard grass (*Echinochloa colona*), crowsfoot grass (*Eleusine indica*), green summer grass (*Brachiaria subquadripara*), Guinea grass (*Panicum maximum c.v. Hamil and c.v. Guinea*), Summer grass (*Digitaria ciliaris*)	Qld, NSW, WA only	2.2 to 3.3 L/ha	STOMP Xtra should be applied as soon as possible after planting and before weed emergence. However, consolidation (cutaway operation) of the planting furrow prior to application to prevent soil movement into the base of the drill is recommended. Poor grass control is expected in soils which contain a high percentage of organic matter. (Refer section on "Incorporation" (a)). Use the higher rate where longer weed control is required or where incorporation by irrigation or rainfall is likely to be delayed more than 5 days. **INCORPORATED:** Under dry conditions or where some cultivation is expected after application STOMP Xtra should be thoroughly incorporated by finger rakes to a shallow depth. In subsequent tillage operations, cultivation depth should not exceed the depth of incorporation. **WATER INCORPORATION:** Incorporate using 12 to 25 mm of spray irrigation or rainfall within 10 days of application. The area should not be disturbed by cultivation for the expected duration of weed control where this method of application is used. If excessive irrigation or rainfall occurs after the application of STOMP Xtra, resulting in the movement of soil from the top to the bottom of the planting drill, weed control will be reduced. For other broadleaf weeds higher rates of atrazine or diuron can be tank mixed with STOMP Xtra – see the relevant atrazine or diuron labels for details.
	Blue top (blue billygoat weed) (*Ageratum houstonianum*)		2.2 L/ha plus atrazine at 1.5 kg ai/ha or diuron at 1.5 kg ai/ha	
5. POST-PLANT AND FLUSHING: STOMP 330E TANK MIXTURES				
Combine sown rice	Barnyard grass (*Echinochloa* spp.), silvertop grass (brown beetle grass) (*Diplachne reptatrix*), starfruit (*Damasonium minus*)	Qld, NSW, NT only	2.2 L/ha plus propanil at 1.8 kg ai/ha	Apply this tank mixture up to the 2 leaf stage of barnyard grass and 1 leaf stage of silvertop. Apply by ground rig in 70-100 L/ha or by aircraft in 25-30 L/ha total spray volume. **WATER MANAGEMENT:** Flush immediately after sowing to enable a good even germination of rice. The soil surface must be sealed by a flushing irrigation or rainfall before the application of STOMP Xtra plus propanil. Apply a second flush or permanent flood after 2 days but not later than 5 days after the application of STOMP Xtra plus propanil. To assist in the control of barnyard grass, permanent water should be applied as soon as the rice can tolerate it and levels maintained for optimum growth of rice. **RICE STAGE:** After the first flushing irrigation the stage of rice at application of STOMP Xtra plus propanil is not critical and timing should be based on the stage of weed growth and water management. However, do NOT apply to rice in a weakened condition from causes such as soil salts, moisture stress, overwatering, or any other cause. Some transient leaf burn of the rice may result after the application of STOMP Xtra plus propanil but no long term effects will result from this leaf burn. Rice seed should be covered with at least 1 cm of water after the first flushing irrigation before STOMP Xtra plus propanil is applied to germinating rice seed.

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CROP	WEEDS CONTROLLED	STATES	RATE/ TREATED ha	CRITICAL COMMENTS
Combine sown rice and pasture sod sown rice	Barnyard grass, silvertop grass, starfruit, annual sedges * (*Cyperus* spp.) * Suppression only	Qld, NSW, NT only	2.2 or 3.3 L/ha plus paraquat at 200 g ai/ha	Use the higher rate when sowing into pasture sod sown rice for annual sedge control or when more than 10 days is expected between treatment and permanent water. Apply this tank mix up to the 3 leaf stage of barnyard grass, silvertop and sedges, before rice emergence. Apply by ground rig in 70-100 L/ha of water total spray volume. **WATER MANAGEMENT:** Flush immediately after sowing to enable a good even germination of rice. The soil surface must be sealed by a flushing irrigation or rainfall before the application of STOMP Xtra plus paraquat. Apply a second flush or permanent flood after 1 day but not later than 5 days after the application of STOMP Xtra plus paraquat. To assist in the control of barnyard grass, permanent water should be applied as soon as the rice can tolerate it and levels maintained for optimum growth of rice. **RICE STAGE:** After the first flushing irrigation, STOMP Xtra plus paraquat must be applied before rice emergence. Do NOT apply to rice in a weakened condition from causes such as soil salts, moisture stress, over-watering, or any other cause.
6. PRE-TRANSPLANT TREATMENT				
Transplanted broccoli, cabbage and cauliflower	See Weed Table D	Qld, NSW, Vic, SA, Tas, WA only	1.5 to 2.2 L/ha	Apply STOMP Xtra to a firm seedbed free of ridges, clods and trash between 7 and 2 days before transplanting. Use the higher rates on heavier textured soils or those with a higher organic matter content. Incorporate with 12 to 25 mm of spray irrigation or rainfall applied within one day of application for optimum performance. Mechanical disturbance to the seed bed at transplanting should be minimised to achieve optimum performance. Do NOT apply after transplanting as damage will occur. Do NOT apply where water logging is likely to occur after transplanting or crop stunting will result. Do NOT use STOMP Xtra on soils with an organic matter content above 6% as inconsistent weed control will occur. Ramrod may be tank mixed with STOMP Xtra prior to transplanting or applied separately after transplanting.
	Weed Table D plus dwarf amaranth (*Amaranthus macrocarpus*), green amaranth (*Amaranthus viridis*), annual nettles (*Urtica* spp.), Indian hedge mustard (*Sisymbrium orientale*), potato weed (*Galinsoga parviflora*), sowthistle, turnip weed (*Rapistrum rugosum*), wild radish, wild turnip (*Brassica tournefortii*), winter grass (*Poa annua*)		1.5 to 1.8 L/ha plus 9 L/ha Ramrod† Flowable	
Transplanted lettuce	See Weed Table D	Qld, NSW, Vic, SA, WA only	1.5 to 2.9 L/ha	

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CROP	WEEDS CONTROLLED	STATES	RATE/ TREATED ha	CRITICAL COMMENTS
7. PERENNIAL CROPS				
Avocadoes, bananas, citrus, deciduous fruits, grapevines, lychees, macadamia nut, mangoes, nuts	Dwarf amaranth, green amaranth, annual ryegrass, asthma plant (*Euphorbia hirta*), barnyard grass, chickweed (*Stellaria media*), crowsfoot grass, deadnettle (*Lamium amplexicaule*), fat hen (*Chenopodium album*), pigeon grass,pigweed (*Portulaca oleracea*), prickly lettuce (*Lactuca serriola*), sowthistle, summer grass, winter grass, wireweed.	All States	6.5 to 8.7 L/ha	Do NOT apply STOMP Xtra to grapevines after bud swell. **PRECAUTION:** STOMP Xtra or STOMP Xtra plus simazine is likely to affect the emergence and growth of green manure crops such as oats or beans between rows of trees or vines, if they are sown into the treated band within 12 months of application. Use the higher rate on medium to heavy textured soils and the lower rate on light textured soils. Use a directed spray avoiding spray contact with green bark, fruit and foliage. If applied to freshly transplanted trees or vines, soils should be compacted prior to application of STOMP Xtra to avoid contact with roots. STOMP Xtra must be incorporated by a minimum of 5 mm of rainfall or spray irrigation as soon as possible but no later than 10 days after application or weed control may be reduced. For best results, soil surface should be free of weeds, surface litter and clods at the time of application. If small weeds are present at the time of application, STOMP Xtra should be tank mixed with a knockdown herbicide at the recommended rate. **CAUTION:** Use of simazine mixtures could lead to crop damage on vines younger than 3 years of age. Refer to the simazine label. Do NOT apply simazine mixtures to alkaline soils.
	As above plus prairie grass (*Bromus unioloides*), spotted medic (*Medicago arabica*)		8.7 L/ha	
Citrus, deciduous fruits, grapevines and nuts	As above plus cobbler's pegs (*Bidens pilosa*), curious weed (*Schkuhria pinnata*), stinking Roger (*Tagetes minuta*)		6.5 L/ha plus simazine at 800 g ai/ha	
	As above plus caltrop (*Tribulus terrestris*)		8.7 L/ha plus simazine at 1 kg ai/ha	
Established lucerne seed crops only	Fat hen, summer grass (*Digitaria sanguinalis*)	NSW, SA only	2.2 L/ha	During the spring months prior to irrigation, the lucerne stand should be grazed down hard to produce a low trash soil surface. Apply STOMP Xtra and incorporate treatment by 12-25 mm of spray irrigation or rainfall within one day of application.
	As above plus pigeon grass (*Setaria* spp.)		3.3 L/ha	
Eucalypt forestry plantations	Amaranths (*Amaranthus* spp.), annual rye grass, asthma plant (*Euphorbia hirta*), barnyard grass (*Echinachloa cruss-galli*), chickweed (*Stellaria media*), crowsfoot grass (*Eluesine indica*), deadnettle (*Lamium amplexicaule*), fat hen (*Chenopodium album*), pigeon grass (*Setairia* spp.), pigweed (*Portulaca oleracea*), prickly lettuce (*Lactuca serriola*), stagger weed (*Stachys arvensis*), sow thistle (*Sonchos oleraceus*), summer grass (*Digitaria ciliaris*), winter grass (*Poa annua*), wireweed (*Polygonum aviculare*)	All States	6.5 to 8.7 L/ha	**PRE-PLANTING:** Apply 7 to 2 days prior to transplanting. Use the higher rate on heavier textured soils or soils with higher organic matter. Mechanical disturbance should be minimised during planting to optimise performance. **POST-PLANTING:** Apply immediately following planting, before emergence of weeds. Repeat applications may be made as directed sprays to provide pre-emergence control of weeds. Emerged weeds should be controlled with carefully directed applications of a non-selective herbicide or over-the-top application of a selective herbicide. If applied to freshly transplanted trees, soils should be compacted prior to application to avoid contact with roots. Weed control may be reduced if rainfall or irrigation does not occur within 10 days of application. Flood irigation may reduce control.

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CROP	WEEDS CONTROLLED	STATES	RATE/ TREATED ha	CRITICAL COMMENTS
Pyrethrum Pre-emergence crops	See Weed Table D	Tas only	1.5 to 2.2 L/ha	Apply STOMP to seedbed within 10 days of sowing, prior to pyrethrum emergence. Apply at the lower rates on sandy soils. Incorporate with 12-25 mm of rainfall or irrigation within 1 day of application for optimum performance.
Post-emergence crops			1.5 to 3.6 L/ha	Apply STOMP prior tp weed germination at any stage of pyrethrum growth from 2 true leaf stage to preflowering, as advised by qualified crop advisor. Seek advice from qualified crop advisor before applying follow up applications in any one year. Incorporate with 12-25 mm of rainfall or irrigation within 1 day of application for optimum performance.
Teatree (*Melaleuca alternifolia*)	Weed Table B plus dwarf amaranth, green amaranth, annual ryegrass, barnyard grass, chickweed (*Stellaria media*), crowsfoot grass, deadnettle (*Lamium amplexicaule*), fat hen, pigeon grass, pigweed, prickly lettuce (*Lactuca serriola*), sowthistle, summer grass, winter grass, wireweed	NSW, Qld, SA, NT only	3.3 to 6.5 L/ha	Do NOT tankmix with simazine as crop damage may result. For best results the soil surface should be free of weeds, surface litter and clods at the time of application. **PRE-TRANSPLANTING:** Apply 7 to 2 days prior to transplanting seedlings. Use the higher rates on heavier textured soils or soils with higher organic matter. Mechanical disturbance should be minimised during planting to optimise performance. Avoid contact of treated soil with seedling roots. **POST-PLANTING:** Apply immediately following planting and pre-emergence of weeds. If applied to freshly transplanted trees, soils should be compacted prior to application of STOMP Xtra to avoid contact with roots. Weed control may be reduced if rainfall or irrigation does not occur within 10 days of application. Flood irrigation may reduce control.
8. ESTABLISHED TURF				
TURF WARM SEASON SPECIES. Bahia grass, buffalo grass, couch, Kikuyu, salt water couch and Zoysia grass turf	Crowsfoot (crab grass), summer grass, winter grass	All States, ACT, NT only	3.3 L/ha or 33 mL/100 m^2	The product should be incorporated by 10-15 mm of spray irrigation or rainfall as soon as possible within one day of application. Apply once every 10 weeks from early September to the end of February.
Queensland blue couch, hybrid couch c.v. Tifdwarf			2.2 L/ha or 22 mL/100 m^2	
TURF COOL SEASON SPECIES. Kentucky blue grass			3.3 L/ha or 33 mL/100 m^2	The product should be incorporated by 10-15 mm of spray irrigation or rainfall as soon as possible within one day of application. Do NOT make more than one application of STOMP 330E per year. (Refers to ryegrass, bent grass only).
Bent grass, perennial ryegrass			2.2 L/ha or 22 mL/100 m^2	

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CROP	WEEDS CONTROLLED	STATES	RATE/ TREATED ha	CRITICAL COMMENTS
9. IRRIGATION CHANNELS				
Cotton irrigation banks, channels and drains	Barnyard grass, silvertop grass (brown beetle grass)	Qld, NSW only	3.3 to 6.5 L/ha	Use the lower rate when short term control is required. Apply in late winter or early spring after regrading or clearing channels. The soil should be loose and free of large clods. If 25-50 mm of rainfall has not fallen within 14 days of application the channel should be filled with water and allowed to stand for 1 day. The water in the channel should then be drained off and used to pre-irrigate cotton fields. Do NOT use water in channel to irrigate or pre-irrigate susceptible crops.
			4.4 L/ha plus diuron at 8.1 kg ai/ha	Use this mixture where long term control is required or a broader weed spectrum is present. See diuron label for details. Water in the channel should NOT be used to irrigate or pre-irrigate susceptible crops.

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

WITHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.

WEED TABLE

A. IN COTTON, COW PEAS, MUNG BEANS, NAVY BEANS, PEANUTS, PIGEON PEAS, SOYBEANS, SUNFLOWERS – with pre-plant incorporated treatment (double incorporation)

The following weeds are controlled:

Barnyard grass	*Echinochloa* spp.	Native millet	*Panicum decompositum*
Button grass	*Dactyloctenium radulans*	Pale pigeon grass	*Setaria glauca*
Common heliotrope	*Heliotropium europeaum*	Paspalidium (Brigalow grass)	*Paspalidium* spp.
Crested goosefoot	*Chenopodium cristatum*	Pepper grass	*Panicum whitei*
Crowsfoot grass	*Eleusine indica*	Pigweed	*Portulaca oleracea*
Dwarf amaranth	*Amaranthus macrocarpus*	Queensland blue grass	Dichanthium sericeum
Early spring grass	*Eriochloa* spp.	Red Flinders grass	*Iseilema vaginiflorum*
Fat hen	*Chenopodium album*	Scarlet pimpernel	*Anagallis arvensis*
Green amaranth	*Amaranthus viridis*	Small burr grass	*Tragus australianus*
Liverseed grass	*Urochloa panicoides*	Stink grass	*Eragrostis cilianensis*
Mexican clover (white eye)	*Richardia brasiliensis*	Weeping love grass	*Eragrostis parviflora*
Mossman River grass	*Cenchrus echinatus*	Wireweed	*Polygonum aviculare*

Useful suppression of the following weeds is also obtained:

Blackberry nightshade	*Solanum nigrum*	Mintweed	*Salvia reflexa*
Caltrop	*Tribulus terrestris*	Peppercress	*Lepidium* spp.
Common verbena	*Verbena officinalis*	Stagger weed	*Stachys arvensis*

B. IN COTTON, SUNFLOWERS, MAIZE and TEATREE - with post-plant pre-emergence surface treatment (STOMP 330E alone)

The following weeds are controlled:

Barnyard grass	*Echinochloa* spp	Pale pigeon grass	*Setaria glauca*
Button grass	*Dactyloctenium radulans*	Paspalidium (Brigalow grass)	*Paspalidium* spp
Common heliotrope	*Heliotropium europeaum*	Pepper grass	*Panicum whitei*
Crested goosefoot	*Chenopodium cristatum*	Pigweed	*Portulaca oleracea*
Crowsfoot grass	*Eleusine indica*	Queensland blue grass	*Dichanthium sericeum*
Dwarf amaranth	*Amaranthus macrocarpus*	Red Flinders grass	*Iseilema vaginiflorum*
Early spring grass	*Eriochloa* spp.	Scarlet pimpernel	*Anagallis arvensis*
Green amaranth	*Amaranthus viridis*	Small burr grass	*Tragus australianus*
Liverseed grass	*Urochloa panicoides*	Stink grass	*Eragrostis cilianensis*
Mexican clover (white eye)	*Richardia brasiliensis*	Weeping love grass	*Eragrostis parviflora*
Mossman River grass	*Cenchrus echinatus*	Wireweed	*Polygonum aviculare*
Native millet	*Panicum decompositum*		

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Useful suppression of the following weeds is also obtained:

Caltrop	*Tribulus terrestris*	Mintweed	*Salvia reflexa*
Common sowthistle	*Sonchus oleraceus*	Peppercress	*Lepidium* spp.
Common verbena	*Verbena officinalis*	Stagger weed	*Stachys arvensis*

C. IN MAIZE - with post-plant pre-emergence surface treatment of STOMP 330E plus tank mix with atrazine.

The following weeds are controlled in addition to those controlled by STOMP 330E alone:

Bathurst burr	*Xanthium spinosum*	Noogoora burr	*Xanthium pungens*
Caltrop	*Tribulus terrestris*	Paddy melon	*Cucumis* spp
Mintweed	*Salvia reflexa*	Thornapple	*Datura* spp

The following weeds are not controlled by STOMP 330E or the mixture with atrazine:

Bindweed	*Convolvulus* spp.	Nut grass	*Cyperus rotundus*
Wandering jew	*Commelina* spp.		

D. IN CARROTS, PROCESSING PEAS, FRENCH BEANS, TRANSPLANTED CABBAGE, CAULIFLOWER, BROCCOLI, LETTUCE AND PYRETHRUM - with pre-emergence surface treatment after planting or before transplanting as directed and incorporated by spray irrigation.

The following weeds are controlled:

Awnless barnyard grass	*Echinochloa colona*	Fat hen	*Chenopodium album*
Bittercress	*Coronopus didymus*	Green fat hen	*Chenopodium murale*
Bladder ketmia	*Hibiscus trionum*	Pigweed	*Portulaca oleracea*
Chickweed	*Stellaria media*	Prickly lettuce	*Lactuca serriola*
Deadnettle	*Lamium amplexicaule*	Shepherd's purse	*Capsella bursa-pastoris*
Wireweed	*Polygonum aviculare*		

Useful suppression only of the following weeds at the lower rates. Higher rates or tank mixtures are required for complete control (see DIRECTIONS FOR USE table):

Annual nettles	*Urtica* spp.	Indian hedge mustard	*Sisymbrium orientale*
Blackberry nightshade	*Solanum nigrum*	Turnip weed	*Rapistrum rugosum*
Common sowthistle	*Sonchus oleraceus*	Wild radish	*Raphanus raphanistrum*
Fumitory	*Fumaria* spp.	Winter grass	*Poa annua*

THIS PRODUCT IS NOT CONSIDERED TO BE A DANGEROUS GOOD UNDER THE AUSTRALIAN CODE FOR THE TRANSPORT OF DANGEROUS GOODS BY ROAD AND RAIL

FOR SPECIALIST ADVICE IN AN
EMERGENCY ONLY
PHONE 1 800 033 111
TOLL FREE – ALL HOURS – AUSTRALIA-WIDE

BASF Australia Ltd
ABN 62 008 437 867
Norwest Business Park, 7 Maitland Place
Baulkham Hills NSW 2153

Customer Service Telephone:	**1800 635 550**
Customer Service Fax:	**1800 630 005**
Product Information Line:	**1800 501 940**
Fax On Demand:	**0500 544 044**

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PERMIT DETAILS FOR NUMBER – PERMIT 4541

STOMP XTRA

HERBICIDE

Active Constituent: 455 g/L PENDIMETHALIN

Registered to: FLOWER INDUSTRY ASSOCIATION - TASMANIA INC.
16 William Street
PERTH TAS 7300

FOR MINOR OFF-LABEL-USE OF A REGISTERED AGVET CHEMICAL PRODUCT

PERMIT NUMBER - PER4541

This permit is issued under the Agvet Code, of the relevant jurisdictions, to the person stated above. The holder of the permit must comply with all requirements as specified in the Agvet Code. A summary of the key requirements are that the holder must:

- supply any requested information to the NRA;
- inform the NRA if they become aware of any relevant information concerning the uses dealt with by this permit;
- comply with a lawful direction or requirement of an inspector.

This permit for the reasons given below, allows any person listed in ***1. Persons*** to use the products listed in ***2. Products*** for the minor off-label use specified in ***3. Directions for Use*** in the jurisdictions listed in ***4. States.***

If this permit were not issued use of the products as specified in this permit would constitute an offence under the Agvet Codes.

The persons listed in ***1. Persons*** must comply with all conditions listed in CONDITIONS OF PERMIT to be effectively covered by this permit.

THIS PERMIT IS IN FORCE FROM 10 SEPTEMBER 2001 TO 9 SEPTEMBER 2006.

It is in force until it expires or it is cancelled, suspended or surrendered.

REASON FOR ISSUE OF PERMIT

There are a very limited number of herbicides available for use on flower bulb crops such as Tulips, Liliums, Iris, Daffodil, Gladiolus and Freesias. Currently only simazine (2 products) and diuron (3 products) are registered for such use: diuron in Daffodils, Gladiolus and Tulips, and simazine for Gladiolus only.

Hence extra herbicides are required, to provide a rotation of herbicide groups (as part of resistance management: simazine and diuron are both Group-C)), to extend the weeds-controlled and crop spectrum, and to enable post-emergence weed control. A well-considered and well-documented strategy for diverse chemical weed control in flower-bulb crops has been proposed, including a variation of herbicide groups (C, D, E & K).

Pendimethalin (Group-D) is required for pre-emergent-weed control, particularly of wireweed. Pendimethalin is considerably more effective against wireweed than other herbicides used. Wireweed both competes for crop resources and causes significant difficulties at harvest. Also, pendimethalin gives an alternative to Group-C herbicides, which are widely used, and so help avoid such resistance developing in the target weeds.

This permit covers the use of pendimethalin (applied pre-emergence-crop and weed) for tulip, lilium, iris, daffodil and gladiolus.

1. Persons

Persons generally.

2. Products

STOMP XTRA HERBICIDE

Containing: 455 g/L PENDIMETHALIN
as its only active constituent.

3. Directions for Use

Crop	Pest	Rate
TULIP, LILIUM, IRIS, DAFFODIL AND GLADIOLUS.	CONTROL OR SUPPRESSION OF: AWNLESS BARNYARD GRASS, CHICKWEED, COMMON BITTERCRESS, DEAD NETTLE, FAT HEN, PIGWEED, SHEPHERD'S PURSE WIREWEED. SUPPRESSION ONLY OF: ANNUAL POA, BLACKBERRY NIGHTSHADE, FUMITORIES, SOWTHISTLES, WILD RADISH AND WILD TURNIP.	1.1 - 2.18 L/ha

Critical Use Comments:

Apply pre-emergence-weed/pre-emergence-crop, in a high volume spray. Apply from immediately after sowing, until just prior to crop emergence. Use the higher rates on heavy textured or highly organic soils. Apply to a fine, firm seedbed free of clods and trash. DO NOT use on sandy soils. Avoid applying product to areas where water logging is likely to occur.

FOR A FULL COPY OF THIS PERMIT, PLEASE CONTACT BASF AUSTRALIA LTD ON 1800 501 940

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PERMIT DETAILS FOR NUMBER – PERMIT 4541

Avoid soils with organic matter content greater than 6%, as inconsistent weed control will occur. For optimum performance, incorporate with 12 to 25 mm of spray irrigation within one day of application. In adverse conditions, apply in conjuction with other herbicides, as advised by a qualified crop advisor, to ensure that an adequate level of weed control is achieved. DO NOT re-plant bulbs within 5 months of application.

Withholding Period:

NOT APPLICABLE.

4. States

TAS only.

CONDITIONS OF PERMIT

THIS PERMIT has been granted in response to requests from persons other than the manufacturers of products which have been included in this permit. When assessing the proposed use the NRA will often seek advice from these manufacturers. As these manufacturers have not sought this permit, they should not be held responsible for the use of their products as specified in this permit.

THIS PERMIT provides for the use of a product in a manner other than specified on the approved label of the product. Unless otherwise stated in this permit, the use of the product must be in accordance with instructions on its label.

IN DECIDING whether or not to issue this permit the NRA must assess the use against many known and uncertain scientific and other factors. The NRA is satisfied that the approved use will not cause an undue hazard to human health and the environment. However, users should undertake the use knowing there is no guarantee that the use will be effective to the extent expected by users, that no crop damage may result, or the use would not jeopardise trade.

PERSONS who wish to prepare for use and/or use the products for the purposes specified in this permit must read, or have read to them, the permit particularly the information included in DETAILS OF PERMIT and CONDITIONS OF PERMIT.

TO AVOID CROP DAMAGE:

The sensitivity of some species and varieties of the crops to be treated under this permit has not been fully evaluated. It is advisable, therefore, to only treat a small number of plants to ascertain their reaction before treating the whole crop.

Acknowledgments:
Collated by HerbiGuide. Phone 08 98444064 for more information.