

Product Name: Agro-Essence Terbuthylazine 875 WG Herbicide
APVMA Approval No: 95656/146745



Label Name:	Agro-Essence Terbuthylazine 875 WG Herbicide
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Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	ACTIVE CONSTITUENT: 875 g/kg TERBUTHYLAZINE
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Mode of Action:	GROUP 5 HERBICIDE
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Statement of Claims:	For the control of weeds in chickpeas, faba beans, fallows, field peas, lentils, lupins, sorghum and triazine tolerant canola
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Net Contents:	10 - 20kg
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Restraints:	<p>Restraints DO NOT apply by air. DO NOT apply to waterlogged soil. DO NOT apply to fields where the slope exceeds 3%. DO NOT apply if heavy rains or storms that are likely to cause surface runoff are forecast within 2 days of application. DO NOT irrigate to the point of runoff for at least 2 days after application. DO NOT use as a pre-emergence application in sorghum during the wet season in the Northern irrigation areas of Western Australia. DO NOT apply more than 1.2 kg per crop.</p> <p>Spray Drift Restraints: 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</p>
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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 COARSE spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas (see 'Mandatory downwind 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 (meters)	
	Natural aquatic areas	Vegetation areas
Up to maximum label rate	60	30

Directions for Use:

This section contains file attachment.

Other Limitations:

Withholding Periods:

Harvest
NOT REQUIRED WHEN USED AS DIRECTED.

Grazing:

Canola, chickpeas, faba beans, field peas, lentils, lupins: DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 6 WEEKS AFTER APPLICATION.

Sorghum: DO NOT GRAZE OR CUT FOR STOCKFOOD FOR 4 WEEKS AFTER APPLICATION.

Fallows: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 6 WEEKS AFTER APPLICATION.

Trade Advice:

General Instructions:

This section contains file attachment.

Resistance Warning:

RESISTANT WEEDS WARNING
GROUP 5 HERBICIDE

Agro-Essence Terbutylazine 875 WG Herbicide is a member of the triazines group of herbicides. Agro-Essence Terbutylazine 875 WG Herbicide has the inhibitors of photosynthesis at photostem II mode of action. For weed resistance management, Agro-Essence Terbutylazine 875 WG Herbicide is a Group 5 herbicide. Some naturally-occurring weed biotypes resistant to Agro-Essence Terbutylazine 875 WG Herbicide and other Group 5 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

	Agro-Essence Terbutylazine 875 WG Herbicide or other Group 5 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Agro-Alliance (Australia) Pty Ltd accepts no liability for any losses that may result from the failure of Agro-Essence Terbutylazine 875 WG Herbicide to control resistant weeds.
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Precautions:	<p>RE-ENTRY PERIOD DO NOT allow entry into treated areas for 8 days. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist over normal clothing and chemical resistant gloves. Clothing must be laundered after each day's use.</p>
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Protections:	<p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with the product or used containers. After application of Agro-Essence Terbutylazine 875 WG Herbicide, DO NOT irrigate crop to the point of run off, unless it can be retained on farm. TT-Canola: DO NOT use or apply this product post-emergence on raised beds or where furrows have been created in the soil for the purpose of holding or channelling water. DO NOT use in channels or drains.</p> <p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS DO NOT apply or drain or flush equipment on or near desirable 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. DO NOT plant crops other than those recommended on this label for at least 6 months following the most recent application of up to 1.2 kg per hectare.</p>
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Storage and Disposal:	<p>Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight. Triple rinse containers before disposal. Add rinsings to the 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 regulation. DO NOT burn empty containers or product.</p>
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Safety Directions:	<p>May irritate the eyes. Avoid contact with eyes and skin. When opening the container, mixing, loading and preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length chemical resistant gloves and half facepiece respirator with dust cartridge or canister. When preparing product for use for boomspray equipment wear cotton overalls, over normal clothing, buttoned to the neck and wrist and a washable hat, elbow-length chemical resistant gloves and half facepiece respirator with dust cartridge or canister. When using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing). In addition, when using the prepared spray by lay-by application equipment wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length chemical resistant gloves and half facepiece respirator with dust cartridge or canister. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, respirator and if rubber wash with detergent and warm water, and contaminated clothing.</p>
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First Aid Instructions:	<p>If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.</p>
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First Aid Warnings:	
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DIRECTIONS FOR USE:

Crop	Situation	Weeds	Rate kg/ha	Critical Comments
Chickpeas, Faba beans, Field peas, Lupins. NSW, Vic, SA, WA, Qld only	Pre - Sowing	Suppression of: Wild Radish, Doublegee/Spiny emex	0.86 to 1.20	Use the lower rate on light sandy soils (sandy loams to loamy sands) and the higher rate on heavier soils (loams, silt plus clay 40-60%). The soil should be free of excessive clods, trash and deep furrows. Sufficient rainfall (20 to 30 mm) to wet the soil through the weed root zone is necessary within 2 to 3 weeks of application. In Pulse crops ensure the seed is covered with at least 3cm and preferably 5cm of soil and DO NOT use rates higher than 0.86 kg/ha on soils with pH 8.0 and above as unacceptable crop damage may occur. NOTE: Some early crop phytotoxicity may be observed particularly on light soils. Heavy, intense rainfall following application may cause crop damage. At higher rates, avoid over-lapping sprays and spraying-out corners.
	Post Sowing, Pre-Emergence (PSPE). Apply to the soil within 2 days after sowing.	Burr medic, Black bindweed, Corn gromwell (White ironweed, Sheepweed), Deadnettle, Indian hedge mustard, Long haired poppy, Mint weed, Ox tongue, Prickly lettuce, Shepherd's purse, Sow thistle, Toad rush, Turnip weed, Wild gooseberry, Wild turnip, Wireweed/hogweed. Suppression of: Annual ryegrass, Doublegee/Spiny emex, Phalaris, Wild oats, Wild radish	0.60 to 0.86	
Canola (TT or Triazine Tolerant varieties only)	Pre-Sowing	Suppression of: Wild Radish, Doublegee/Spiny emex	0.86 to 1.20	
	Post Sowing, Pre-Emergence (PSPE). Apply to the soil within 2 days after sowing.	Burr medic, Black bindweed, Corn gromwell (White ironweed, Sheepweed), Deadnettle, Indian hedge mustard, Long haired poppy, Mint weed, Ox tongue, Prickly lettuce, Shepherd's purse, Sow thistle, Toad rush, Turnip weed, Wild gooseberry, Wild turnip, Wireweed/hogweed. Suppression of: Annual ryegrass, Doublegee/ Spiny emex, Phalaris, Wild oats, Wild radish		
	Early post Emergence	Wild radish, Deadnettle Suppression of: Annual ryegrass, Doublegee/ Spiny Emex, Wild oats, Phalaris	0.60 to 1.20	
Lentils	Pre-Sowing	Suppression of: Wild radish, Doublegee/Spiny emex	0.86 to 1.20	Lentils are more sensitive to Agro-Essence Terbutylazine 875 WG Herbicide than other Pulse crops. DO NOT use on light soils (i.e., sandy loams to

Crop	Situation	Weeds	Rate kg/ha	Critical Comments
				loamy sands, less than 40% clay). The crop must be sown at least 5 cm deep. Refer to APPLICATION section of the label. Use the lower rate on light weed infestations. DO NOT use rates higher than 0.86 kg/ha on soils with pH 8.0 and above as unacceptable crop damage may occur. The soil should be free of excessive clods, trash and deep furrows. Sufficient rainfall (20 to 30 mm) to wet the soil through the weed root zone is necessary within 2 to 3 weeks of application. NOTE: Some early crop phytotoxicity may be observed at the high rate. Heavy, intense rainfall following application may cause crop damage. Avoid overlapping sprays and spraying-out corners.
Sorghum	Pre-Sowing AND Post-Sowing Pre-Emergence	Bladder ketmia, Caltrop (yellow vine), Dwarf Amaranth, Milk thistle (sow thistle) and Pigweed	1.20	Apply to soil pre-sowing or post-sowing. Refer to the APPLICATION section below.
	Post-Emergence	Boggabri weed, Noogoora burr, sow thistle (milk thistle), turnip weed, wild gooseberry.	1.20	Always add Hasten at 500 mL/100 L water. Apply up to the 5-7 leaf stage of sorghum. Refer to the fluroxypyr 200 g/L label for complete directions and rate selection.
		All weeds above plus- Annual ground cherry, Apple of Peru, Bathurst burr, Bladder ketmia, Caltrop (yellow vine), Cow vine (peach vine), Dwarf amaranth, Giant (black) pigweed, Pigweed (red), Thornapple (<i>Datura spp.</i>)	0.95 plus 500- 750 mL/ha fluroxypyr (200 g/L)	Always add Hasten at 500 mL/100 L water. Apply up to the 5-7 leaf stage of sorghum. Refer to the fluroxypyr 200 g/L label for complete directions and rate selection.
Application to fallows prior to planting mung beans, soybeans, barley, oats and wheat as directed in the Fallows section of the label (NSW and QLD only)	Pre-emergence	African turnip weed, Burr medic, Black bindweed, Corn gromwell (White iron weed, Sheep weed), Dead nettle, Indian hedge mustard, Flax leaf fleabane, Long haired poppy, Mint weed, Ox tongue, Prickly lettuce, Shepherd's purse, Sow thistle/ Milk thistle, Toadrush, Wild gooseberry, Wild radish, Wild turnip, Wireweed/ Hogweed (<i>Polygonum aviculare</i>).	0.86 – 1.20	Apply to moist soil or when rain is imminent and prior to germination of weeds. Use the higher rate where the soil is covered by more than 50% trash/stubble/weeds, for heavy weed pressure or for longer weed control. If weeds are present, cultivate or apply a knockdown herbicide prior to applying Agro-Essence Terbutylazine 875 WG Herbicide. Agro-Essence Terbutylazine 875 WG Herbicide may also be tank-mixed with certain knock-down herbicides. See Compatibility section of the label.

Crop	Situation	Weeds	Rate kg/ha	Critical Comments
		Suppression of: Annual ryegrass, Bladder ketmia, Boggabri weed, Caltrop/ yellow vine, Doublegee/ Spiny emex, Dwarf amaranth, Phalaris, Pigweed, Wild oats, Wild radish.		Avoid spray overlap and double spraying on headlands and comers. Refer to the Fallows section of the label for plant-back instructions.

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

GENERAL INSTRUCTIONS

Agro-Essence Terbutylazine 875 WG Herbicide can be used to selectively control weeds in the crops listed in the directions for use table and on fallows prior to establishing crops as directed in Fallows section below. When applied pre emergence, the product is mainly absorbed via the roots. Weeds buried by cultivation may not be effectively controlled. Heavy rainfall on light soils may cause movement of the herbicide out of the weed seed zone, resulting in reduced weed control. DO NOT apply to recently burnt stubble/trash. After burning, rainfall or cultivation is required to allow Agro-Essence Terbutylazine 875 WG Herbicide to reach the soil and not be irreversibly bound by ash. Agro-Essence Terbutylazine 875 WG Herbicide is primarily incorporated by rainfall. Sufficient rainfall (20 to 30 mm either as rainfall or irrigation) to wet the soil through the weed root zone is necessary within 2 to 3 weeks of application to make the product effective. Weeds may germinate and emerge before being controlled by Agro-Essence Terbutylazine 875 WG Herbicide, however a delay in rainfall for an extended period may result in weeds germinating from depth and surviving. Where soil has a high potential for leaching, heavy rainfall between application and crop emergence may result crop damage from movement of herbicide into the crop seed zone. In flood or furrow irrigation situations, complete and continued activation of the product may not occur due to a thin band of dry soil on the surface during or after irrigation. Mechanical incorporation after application, using light harrows to incorporate the product into the soil not more than 4 cm deep is required to ensure the irrigation water activates the product. Always apply the product to an even un-ridged seedbed. Dense weed populations and multiple germinations (especially Wild radish) may require both a pre-emergent and post emergent herbicide treatment (only one being Agro-Essence Terbutylazine 875 WG Herbicide) to give acceptable control.

INTEGRATED WEED MANAGEMENT STRATEGY FOR TT CANOLA

The use of this product in TT canola is subject to the current approved Integrated Weed Management Strategy for the use of triazine herbicides in TT canola. The Strategy encompasses: Integrated Weed Management; the specific management of crop plant volunteers and outcrossing to other plants; and triazine herbicide residue management (agronomic and environment).

Compliance with registered label directions and adoption of the principles outlined in the Strategy will assist with implementation of crop management practices that minimise the development of herbicide resistance in treated weeds; reduce the levels of triazine residues in the environment; and manage volunteer plants and outcrossing. Copies of the Strategy are available from Agro-Alliance (Australia) Pty Ltd.

Where specific information and farm management assessment is required to assist with application of Integrated Weed Management programs on-farm, particularly in adapting strategies to local conditions, then specific expert advice should be obtained from an appropriate agronomist, consultant, chemical supplier or Departmental adviser.

To minimise herbicide resistance:

- Avoid dry sowing in heavily weed infested paddocks. Wait for weed germination after the opening rains in weedy paddocks. Use a pre-plant knockdown or cultivation. No weeds should be allowed to survive at this stage.
- DO NOT use Agro-Essence Terbutylazine 875 WG Herbicide if the area to be treated had a triazine herbicide applied to it last season.
- Watch for escapes, especially in paddocks with a long history of Group 5 herbicide use.
- DO NOT use Group 5 herbicides in consecutive years.

Resistant Weeds Reporting

Growers should collect plant or seed samples where weeds that are normally susceptible to atrazine, simazine and terbutylazine may be resistant, get them tested and seek professional advice.

MIXING

DO NOT mix or load within 20 m of any well, dam, intermittent or perennial stream. Partially fill the spray tank with water and maintain agitation while adding the required quantity of Agro-Essence Terbutylazine 875 WG Herbicide. Agitation should continue after filling and during spraying. If spray is allowed to stand, agitate thoroughly before resuming spraying.

COMPATIBILITY

Some reduction in control may be observed on some weeds compared to the application of knockdown herbicides alone, particularly on large weeds. Tank mixtures of Agro-Essence Terbutylazine 875 WG Herbicide plus glyphosate may not control emerged flax leaf fleabane and consideration should be given to cultivation or a subsequent application of another herbicide such as paraquat ('double knock'). Refer to local agronomist advice or Agro-Alliance (Australia) Pty Ltd for current recommendations for control of flax leaf fleabane. It is advisable that a small scale compatibility test be carried out prior to tank mixing with other products. Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for the tank mix products.

APPLICATION

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

Ground Application

DO NOT apply when wind speed is less than 3 and greater than 20 km/h or during weather conditions when surface temperature inversions can develop. Apply by ground boom in a minimum of 50 L/ha. Use only COARSE spray quality according to ASAE S572 definition for standard nozzles.

Pre-Sowing

Apply to moist soil or when rain is imminent and prior to germination of weeds up to a week before sowing. The soil should be free of excessive clods, trash and deep furrows. Crop safety relies on crop seeds germinating below Agro-Essence Terbutylazine 875 WG Herbicide treated soil. Heavy rain after application, on ridged soil in particular, may cause crop damage from Agro-Essence Terbutylazine 875 WG Herbicide washed into the seed furrow. Crops should preferably be sown with minimum-tillage sowing equipment (fitted with knife points or blades less than 12 mm wide and generally placed on 20 cm tine spacing). For crop safety, maintain slow to moderate speed to avoid leaving deep furrows and avoid throwing soil into adjacent furrows. Also, poor weed control may occur in deep furrows. Ensure even placement of the seed below the treated soil. The use of press-wheels can help seed row closure and reduce treated soil falling close to the seed. DO NOT use a combination of both press wheels and a covering device such as harrows or chains when sowing.

Sowing with disc seeders may lead to un-acceptable crop damage due to shallow, un-even seeding depth and treated soil coming in contact with seeds.

Post-Sowing Pre-Emergence (PSPE)

Pulse crops must be sown to at least 5 cm. Apply within 2 days of sowing to soil left relatively flat by the sowing operation. Heavy rain after application onto ridged soil in particular may cause crop damage from Agro-Essence Terbutylazine 875 WG Herbicide washed into the seed furrow. At the higher rates, avoid over-lapping sprays and spraying-out corners. Sowing with disc seeders may lead to un-acceptable crop damage due to uneven seeding depth and treated soil coming on contact with seed.

Post Emergence

Agro-Essence Terbutylazine 875 WG Herbicide can be applied to weeds growing in triazine tolerant canola up to 6-leaf stage and sorghum up to 5-7 leaf stage of the crop. Always add Hasten at 500 mL/100 L water.

Fallow Application

Agro-Essence Terbutylazine 875 WG Herbicide can be applied to a fallow to provide pre-emergence control of certain weeds emerging prior to sowing nominated crops below. Apply to moist soil or when rain is imminent and prior to germination of weeds. If weeds are present, cultivate or apply a knockdown-herbicide prior to applying Agro-Essence Terbutylazine 875 WG Herbicide. Agro-Essence Terbutylazine 875 WG Herbicide may also be tank-mixed with certain knock-down herbicides. See **Compatibility** section of the label. Observe the following plant-back intervals between the date of application and the intended planting date of the following crop thus.

Following crop after application to fallow	Agro-Essence Terbutylazine 875 WG Herbicide 0.86 kg/ha	Agro-Essence Terbutylazine 875 WG Herbicide 1.20 kg/ha
Mungbeans, Soybeans	3 months	4 months
Barley, Oats, Wheat	4 months	5 months

These plant-backs are based on average seasonal rainfall. Under dry conditions, the breakdown of Agro-Essence Terbutylazine 875 WG Herbicide in the soil may take longer and further advice should be sought from Agro-Alliance (Australia) Pty Ltd.