

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

QA

# 2,4-DB 500 SC

## HERBICIDE

**ACTIVE CONSTITUENT:**  
500 g/L 2,4-DB present as the DIMETHYLAMINE SALT

**GROUP 4 HERBICIDE**

For the control of broadleaf weeds in seedling and established lucerne, medic and clover pasture, peanuts and cereal crops undersown with lucerne, medic or clover as specified in the Direction for Use table.

APVMA Approval No.: 92175/149930

<b>SC</b>	Formulation Type <b>Suspension Concentrate</b>
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**BE PROUDLY  
AUSTRALIAN**

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**QUANTUM  
AGROSCIENCES**

## DIRECTIONS FOR USE

### RESTRAINTS:

DO NOT apply if rain is expected within 4 hours.

DO NOT apply to crop or weeds under stress (not actively growing) due to periods of extreme cold or heat, moisture stress (waterlogged or drought affected), poor nutrition or previous herbicide treatments as increased levels of crop effect and/or reduced levels of weed control may result.

DO NOT use with hard water (>500 ppm) or water containing suspended matter.

SITUATION & CROP	WEEDS CONTROLLED	STATES
Lucerne - seedling and established	<p>Amaranth <i>Amaranthus</i> spp.</p> <p><b>Burrs</b></p> <ul style="list-style-type: none"> <li>- Bathurst <i>Xanthium spinosum</i></li> <li>- Californian <i>Xanthium orientale</i></li> <li>- Noogoora <i>Xanthium strumarium</i></li> </ul> <p>Capeweed <i>Arotheca calendula</i>, Charlock <i>Sinapis arvensis</i>, Dock (seedlings) <i>Rumex</i> spp., Evening primrose <i>Oenothera strica</i>, Fat hen <i>Chenopodium album</i>, Fumitory <i>Fumaria</i> spp., Marshmallow <i>Malva parviflora</i>, Mexican poppy <i>Argemone</i> spp., Mustards <i>Sisymbrium</i> spp., Paterson's curse (Salvation Jane) <i>Echium plantagineum</i>, Plantains (Flat weeds) <i>Plantago</i> spp., Pricky lettuce <i>Lactuca serriola</i>, Shepherd's purse <i>Capsella bursa-pastors</i>, Sowthistle <i>Sonchus oleraceus</i>, Spiny emex (Doublegee) <i>Emex australis</i>, Stinging nettle <i>Urtica urens</i></p> <p><b>Thistles</b></p> <ul style="list-style-type: none"> <li>- Saffron <i>Carthamus lanatus</i></li> <li>- Slender <i>Carduus pycnocephalus</i></li> <li>- Soldier <i>Picnomon acama</i></li> <li>- Spear <i>Cirsium vulgare</i></li> <li>- Variegated <i>Silybum marianum</i></li> </ul> <p>Turnip weed <i>Rapistrum rugosum</i>, Wild (Mediterranean) turnip <i>Brassica tournefortii</i>, Wireweed <i>Polygonum aviculare</i></p>	All States

RATE/ha	CRITICAL COMMENTS
1 - 3.2 L	Spray seedling weeds at the 2-6 leaf stage when seedling lucerne has between 1 - 8 trifoliolate leaves. Use lower end of rate range only for 2 - 4 leaf weeds under good growing conditions or for spray grazing. Small weeds which have been growing slowly under stress and are therefore physiologically older may not be well controlled. To avoid leaf distortion cut or graze established lucerne before spraying. Unless "Spray-Grazing" DO NOT cut, mow or graze for 4 weeks after application to maximise weed control.

SITUATION & CROP	WEEDS CONTROLLED	STATES
Clover and Medic Pastures - seedling and established Legumes showing acceptable tolerance <b>Clover</b> - Arrow leaf cvs Cefalu, Zulu II - Balansa cvs Bolta, - Frontier, Paradana - Berseem cv Elite II - Persian cvs Nitro, Lazer, Leeton, Prolific, Shaftal - Rose cv Hykon - Red - Sub cvs Coolamon, Dalkelth, Gosse, Goulburn, Junee, Nungarin, Riverina, Seaton Park, Trikkala, Urana - White cv NuSiral etc <b>Medic</b> - Barrel cv Caliph, Parabinga - Burr (polymorpha) cv Circle valley - Garna cvs Paraponto, Sapo - Murex cv Zodiac - Snail cvs Robinson, Sava <b>Serraella</b> - French cv Erica	Refer to weeds controlled in Lucerne	All States
Sown Pasture containing Clover or Medic	Refer to weeds controlled in Lucerne	
Sub. clover pasture	Doublegee <i>Emex australis</i>	WA only

RATE/ha	CRITICAL COMMENTS
1 - 3.2 L	Spraying seedling weeds at the 2 - 6 leaf stage when seedling medic and clover has between 1 - 8 trifoliolate leaves. Use lower end of rate range only for 2 - 4 leaf weeds under good growing conditions or for spray grazing. Medic and Clover safety QA 2,4-DB 500 Herbicide may reduce initial vigour of most pasture legumes. Depending on inherent tolerance this may not result in reduced spring growth or seed yield. Tolerance can vary between seasons, legume type and cultivars. Because of the continuing introduction of new pasture legumes and cultivars caution is advised before applying QA 2,4-DB 500 Herbicide to any new legume. Caution is especially advised if a treated crop is intended for seed production. Application beyond the 8 trifoliolate leaf stage can increase the chance of reduced vigour and production. The use of higher rates can also increase vigour reduction. DO NOT exceed 3 L/ha when spraying Robinson or Sava snail medic. Do not exceed 2.5 L/ha when spraying Sapo or Paraponto gama medic. DO NOT use on Berseem clover or on Red clover when it is being harvested for seed. Growth of Red clover may be retarded. QA 2,4-DB 500 Herbicide is unsafe to use on Biserrula, Gland clover, Popany vetch and Orion, Santiago & Serena medic due to the risk of excessive growth and seed. QA 2,4-DB 500 Herbicide is unsafe to use on chicory and plantain.
1 - 1.32 L	Apply when clovers or medics are at the 1 - 8 trifoliolate leaf stage. Grass seedlings should have 3 or more leaves. <b>Medic and Clover safety</b> refer to the Critical Comments above.
1.2 L	Spray when Doublegee has less than 14 leaves; best results are obtained when weed has 6 - 8 leaves. Clover should have 2 - 8 trifoliolate leaves. DO NOT apply to pastures when one or more false breaks in the season occur, as uneven germination will result. Doublegee which emerge after spraying will not be controlled. <b>Medic and Clover safety</b> refer to the Critical Comments above.

SITUATION & CROP	WEEDS CONTROLLED	STATES
Peanuts - Runner types - Virginia types - Spanish types	<i>Ipomoea</i> spp. including - Bellvine <i>Ipomoea plabeia</i> - Morning glory <i>Ipomoea purpurea</i> - Red convolvulus <i>Ipomoea hederifolia</i> Spiny emex <i>Emex australis</i> , Thornapples <i>Datura</i> spp.	Qld only
Wheat, Barley, Oats, Triticale & Cereal Rye undersown with lucerne, medic or clover	Refer to Weeds Controlled in Lucerne	All States
Spot spraying (All situations)		

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

**WITHHOLDING PERIOD: DO NOT GRAZE OR CUT FOR STOCK FEED FOR 7 DAYS AFTER APPLICATION.**

RATE/ha	CRITICAL COMMENTS
1.3 - 1.7 L	Apply between 1 and 12 weeks after seedlings have emerged. Use the lower end of the rate range for control of <i>Ipomoea</i> spp. weeds only.
2.1 to 3.2 L	Spray weeds at the 2 - 6 leaf stage when seedling lucerne, medic and clover has between 1 - 8 trifoliolate leaves. Use lower rate for 2 - 4 leaf weeds under good growing conditions. Apply to cereals after the "double ridge" stage which is normally through tillering after the main shoot has five leaves until booting (Z15 - 33). The time to "double ridge" stage will vary depending on growing conditions and variety. <b>Medic and Clover safety</b> refer to the Critical Comments above.
200 - 400 mL/100 L water	Use lower rate for easy to kill weeds e.g. Fat hen or Variegated thistle. For harder to kill weeds e.g. Capeweed, Marshmallow, use higher rate. Where difficult to wet, hairy or very thick weed populations are present, add Wetter 1000 to the spray mixture at a rate of 65 mL/100 L water.

## GENERAL INSTRUCTIONS

THIS IS A PHENOXY HERBICIDE THAT CAN CAUSE SEVERE DAMAGE TO NATIVE VEGETATION AND SUSCEPTIBLE CROPS SUCH AS COTTON, GRAPES, TOMATOES, OILSEED CROPS AND ORNAMENTALS. Before opening, carefully read Directions for Use, Precautionary Statements, Safety Directions and First Aid Instructions.

## MIXING

Mix with the required amount of water in the spray tank or mixing vessel. Apply using a low volume boom spray fitted with fan jets, or by aircraft. Use mains or rain water for mixing. If not available, water with a hardness of less than 500 ppm (expressed as calcium carbonate equivalent) can be used but is not preferred. DO NOT tank mix Ammonium sulphate with QA 2,4-DB 500 SC Herbicide in hard water for this may cause nozzle blockages.

## APPLICATION

Apply using boom or spot spray equipment. Application must be uniform. Nozzle type, output, speed and pressure should be adjusted to deliver a COARSE spray quality (ASAE S 527) in 110 - 220 litres per hectare by ground application and a minimum of 40 litres of water per hectare by aerial application.

## COMPATIBILITY

QA 2,4-DB 500 SC Herbicide is compatible with Broadstrike but not for control of Paterson's curse or doublegee - refer to Broadstrike label. The effectiveness of Dimethoate, Metasystox, Le Mat and Imidan may be reduced by alkaline hydrolysis if tank mixed with this product. For these situations the addition of LI-700 or Acidowett is recommended which should be added to the tank first. The addition of Bonza Spray Adjuvant can improve control of weeds under some conditions, for example moisture stress but may also increase early effects on legumes. When tank mixing add the required amount of compatible product (and surfactant if recommended) when the spray tank is nearly full and while continuously agitating. If left overnight, agitate thoroughly before spraying.

## RESISTANT WEEDS WARNING

QA 2,4-DB 500 Herbicide is a member of the phenoxy group of herbicides. This product has distributors of cell growth mode of action. For weed resistance management, QA 2,4-DB 500 SC Herbicide is a Group 4 herbicide. Some naturally-occurring weed biotypes resistant to QA 2,4-DB 500 SC Herbicide and other Group 4 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 weeds will not be controlled by QA 2,4-DB 500 SC Herbicide or other Group 4 Herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Quantum Agrosiences Holdings Pty Ltd accepts no liability for any losses that may result from the failure of QA 2,4-DB 500 SC Herbicide to control resistant weeds.

GROUP	<b>4</b>	HERBICIDE
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## PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

**Drift warning:** DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause spray drift onto nearby susceptible plants, adjacent crops, crop lands or pastures. Avoid spray drift and vapour movement onto susceptible crops such as cotton, tobacco, tomatoes, vines, lupins, fruit trees and ornamentals.

## PROTECTION OF LIVESTOCK

**Spray-Grazing Warning:** Some pasture weeds can be controlled by Spray-Grazing a combination of herbicide treatment followed by heavy grazing 7 - 10 days later. Sprayed weeds become more palatable to stock and a higher intake of some weed species after spraying can cause stock deaths and other problems. Increased quantities of poisonous plants may be eaten by stock when the Spray-Grazing technique is being used. Take care if pastures are dominated by Caltrop, Capeweed, Cape Tulip, Paterson's curse (Salvation Jane) or Variegated Thistle. With Paterson's Curse preferably graze stock soon destined for slaughter and avoid extended periods of grazing. Avoid grazing with young or breeding stock. DO NOT graze horses or pigs in Paterson's Curse (Salvation Jane) infested pasture.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with this product 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. This container can be recycled if it is clean, dry, free of visible residues and has the *drumMUSTER* logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. DO NOT dispose of undiluted chemical on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any *drumMUSTER* collection point or similar container management program site. The cap should not be replaced but may be taken separately. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. DO NOT burn empty containers or product.

## SAFETY DIRECTIONS

Poisonous if swallowed. May irritate the eyes and skin. This product is alkaline. Avoid contact with the eyes and skin. DO NOT inhale spray mist. When preparing spray, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield. When using the prepared spray wear cotton overalls buttoned to the neck and wrist and washable hat. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms, and face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing.

## FIRST AID

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

## SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet (SDS) which is available from the supplier.

**CONDITIONS OF SALE:** Quantum Agrosiences Holdings Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Quantum Agrosiences Holdings Pty Ltd's skill or judgement in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Quantum Agrosiences Holdings Pty Ltd has any authority to add to or alter these conditions.

Additional information required under the Globally Harmonised System (GHS) classification of the substance/mixture:

**Harmful if swallowed. Causes serious eye damage. Suspected of causing cancer. Toxic to aquatic life with long lasting effects.**

Do not eat, drink or smoke when using this product. Avoid release to the environment. Collect spillage. Rinse mouth.



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