CAUTION

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

Dow AgroSciences

Abound* 400

Herbicide

ACTIVE CONSTITUENT: 400 g/L 2,4-D PRESENT AS THE ISOPROPYLAMINE SALT

GROUP I HERBICIDE

For the control of emerged broadleaf weeds prior to sowing crops and pastures in conservation tillage situations and for selective weed control in crops and situations detailed in the Directions for Use.

This is a PHENOXY HERBICIDE that can cause severe damage to susceptible crops. Please read the Drift Warning Statement.

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CUSTOMER SERVICE TOLL FREE 1-800 700 096

DIRECTIONS FOR USE

Restraints

DO NOT spray if rain seems likely within 6 hours or if strong winds prevail.

Weeds should be actively growing at the time of treatment. Do not treat weeds under poor growing or dormant conditions (such as occur in drought, water logging, disease, insect damage or following frosts) as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust or silt. Prior herbicide application may also induce stress in weeds

1. CONSERVATION TILLAGE (Tank mixtures with glyphosate)

SITUATION & CROP	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
Preparatory spray for fallows and seedbeds or prior to sowing the following crops: Balansa clover Barley Chickpeas Cotton Faba beans Field peas Lentils, Linseed Lucerne Lupins Narbon beans Navy beans Oats Perennial Ryegrass Persian clover Phalaris Rapeseed Rice Safflower Sorghum Soybean Subterranean clover Sunflower Triticale Vetch Wheat White clover	Fumitory (white) Ball mustard Indian hedge mustard Common sowthistle Turnip weed Wild turnip Wild radish	Seedlings up to 10 cm diameter/high	500 - 900 + glyphosate at recommended label rates	RATE SELECTION: Use the lower rate for seedling broadleaf weeds and increase to the higher rate for broadleaf weeds more than 10 cm diameter/high. Always add the mixture product at recommended label rates. If grazing has occurred allow regrowth to 6-8 cm before spraying and use higher rate. Always add a 100% non-ionic surfactant in accordance with label directions on the mixture product. Observe plant-back periods given in the table in this booklet. For skeleton weed, spraying should only be done 6-8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.
	Australian bindweed Bellvine Caltrop New Zealand spinach Raspweed	Seedlings only (NSW, Qld only)		
	Ageratum spp. (Blue Top) Dock Volunteer lupins Volunteer peas Volunteer sunflowers Charlock Fumitory (red) Medic Paterson's curse Prickly lettuce (Wild lettuce) Saffron thistle Spear thistle Variegated thistle	Seedlings up to 10 cm diameter /high	675 - 900 + glyphosate at recommended label rates	
	Bathurst burr Blackberry nightshade Californian burr Horehound Lincoln weed Marshmallow Sorrel Thornapple Volunteer vetch Volunteer safflower Common ice-plant Storksbill (Erodium) Ivyleaf speedwell *Melilotus* spp. Shepherd's purse Skeleton weed (suppression only) Subterranean clover Ward's weed Wireweed (Hogweed) White clover		900 - 1350 + glyphosate at recommended label rates	

1. CONSERVATION TILLAGE (Tank mixtures with glyphosate) ***continued***

SITUATION & CROP	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
Preparatory spray for fallows and seedbeds or prior to sowing the following crops: Balansa clover Barley Chickpeas Cotton Faba beans Field peas Lentils, Linseed Lucerne Lupins Narbon beans Navy beans Oats Perennial Ryegrass Persian clover Phalaris Rapeseed Rice Safflower Sorghum Soybean Subterranean clover Sunflower Triticale Vetch Wheat White clover	Amaranth Apple of Peru Mexican poppy Annual ground cherry Bladder ketmia Fat hen Melons Native rosella Noogoora burr Potato weed Cow vine Yellow vine Rapeseed	Seedlings up to 10 cm diameter /high (NSW, Qld only)	1350 - 2025 + glyphosate at recommended label rates	RATE SELECTION: Use the lower rate for seedling broadleaf weeds and increase to the higher rate for broadleaf weeds more than 10 cm diameter/high. Always add the mixture product at recommended label rates. If grazing has occurred allow regrowth to 6-8 cm before spraying and use higher rate. Always add a 100% non-ionic surfactant in accordance with label directions on the mixture product. Observe plant-back periods given in the table in this booklet. For skeleton weed, spraying should only be done 6-8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.

2. FALLOW WEED CONTROL

A. Fallow or Stubble Spray prior to Direct Drilling or Sowing Winter Cereals (Victoria only)

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
Mustards Wild turnip	Seedlings or young rosettes only.	0.35 - 0.825	Observe plant-back periods given in the table in this booklet. Can be mixed with chlorsulfuron, paraquat or paraquat/diquat (e.g. Spray•Seed®) where grasses are present. For skeleton weed, spraying should only be done 6-8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.
Spear thistle Wild poppy		0.825	
Charlock		0.825 - 1.2	
Fumitory - white		1.2	
Hoary cress		1.35 - 2.2	
Saffron thistle		1.725	
Capeweed Docks Hexham scent (*Melilotus* spp.) Wireweed (Hogweed) Skeleton weed Sorrel Soldier thistle Sunflower Wild cabbage Wild radish Vetches (Tares)		2.2	

B. Fallow or Stubble Spray prior to Direct Drilling or Sowing Winter Cereals (NSW only)

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
Amaranthus spp. Apple of Peru Blackberry nightshade Charlock Mustards Potato weed Turnip weed (*Rapistrum* spp.) Wild turnip	Seedlings or young rosettes only.	0.825 - 1.725	Observe plant-back periods given in the table in this booklet. Can be mixed with chlorsulfuron, paraquat or paraquat/diquat (e.g. Spray•Seed®) where grasses are present. For skeleton weed, spraying should only be done 6-8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.
Safflower Saffron thistle Sunflower		0.825 - 2.1	
Fat hen Variegated thistle		0.825 - 2.55	
Bathurst burr California burr Noogoora burr Thornapple		1.2 - 1.725	
Slender thistle Stinkwort		1.2 - 2.1	
Caltrop Lupins Rapeseed		1.2 - 2.55	
Hoary cress New Zealand spinach Paterson's curse Shepherds purse Skeleton weed		1.725 - 2.55	
Mintweed Rough poppy		1.725	
Clover		1.9	
Sorrel Wild radish		2.55	

C. Fallow or Stubble Spray prior to Direct Drilling or Sowing Winter Cereals (Queensland only)

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
Turnip weed (*Rapistrum* sp.)	Seedlings or young rosettes only.	0.825	Observe plant-back periods given in the table in this booklet.
Amaranthus spp. Apple of Peru Bathurst burr Blackberry nightshade California burr Caltrop Fat hen Mintweed Mustards Noogoora burr Potato weed Sunflower Variegated thistle Wild radish		1.35	Can be mixed with chlorsulfuron, paraquat or paraquat/diquat (e.g. Spray•Seed®) where grasses are present.
Docks Hexham scent (*Melilotus* spp.) Hoary cress Wireweed (Hogweed) Mexican poppy Paterson's curse Saffron thistle Spiny emex (Doublegee)		2.2	

3. PASTURES (All States)

SITUATION	WEEDS CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
PASTURES: Conservation Tillage - Direct Drilling, Surface Sowing or Fallow Maintenance	Charlock Mustards Shepherd's purse Saffron thistle Slender thistle Spear thistle Variegated thistle Turnip weed Wild radish Wild turnip	Apply to actively growing young weeds before sowing.	0.825 - 2.5	Observe plant-back periods given in the table on this leaflet.
	Clover Sorrel		1.725 + 0.28 - 0.4 dicamba (500g/L)	Do not sow pasture seed for at least 30 days after application.

4. PASTURES and NON AGRICULTURAL AREAS (Western Australia only)

WEEDS CONTROLLED	WEED GROWTH STAGE	RATE mL/ha	CRITICAL COMMENTS
Amsinckia Docks Bindweed Caltrop Flatweed Spear thistle Capeweed Doublegee/Spiny emex Saffron thistle Mustard Wild radish Wild turnip Annual thistles Paterson's curse	Seedlings or young rosettes only	1.725	For pastures not containing legumes. Only seedling docks, spear thistles and Saffron thistle will be controlled.
Afghan melons		2.5 + 1% crop oil	Spray when plants are actively growing preferably before flowering or running.
Paddy melons		1.2 - 1.725	
Prickly saltwort/Roly Poly		2.5	Spray when plants are small.
Stinkwort		2.5 - 5 + surfactant	Best results are obtained when plants are small. Use high rate on larger plants.
Dove weed		5	Spray after good emergence of seedlings.

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

WITHHOLDING PERIODS:

PASTURE & CEREAL CROPS: - DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

IN TASMANIA, THIS PRODUCT MAY ONLY BE USED FROM 15 APRIL TO 15 SEPTEMBER UNLESS OTHERWISE PERMITTED BY THE REGISTRAR OF PESTICIDES.

GENERAL INSTRUCTIONS:

Abound 400 is a water soluble liquid product with non-selective herbicidal activity against broadleaf weeds.

Abound 400 will control emerged weeds only and provides no residual control although certain plant back periods should be observed. Abound 400 is absorbed by plant foliage and accumulates to toxic levels in the regions of growth and reproduction, upsetting the ability of plants to balance the synthesis and use of nutrients. Visible effects are a gradual yellowing and wilting of the plants which advances to complete browning of above ground growth and deterioration of root systems. Effects may not be apparent for 7-10 days or even up to 21 days under cold or cloudy conditions.

DO NOT treat weeds under poor growing or dormant conditions such as occur in drought, water-logging, disease, insect damage, following frost, weeds heavily covered with dust or silt. Reduced results may also occur if weeds are under stress from previous herbicide application.

Rainfall occuring up to 6 hours after application may reduce effectiveness.

DO NOT spray if strong winds prevail.

MINIMUM RECROPPING PERIODS FOR ABOUND 400

CROP	APPLICATION RATE L/ha		
	Up to 0.825	0.825 - 1.725	1.725 - 2.55
	Plant - back Periods (Days)		
Barley ❶	1	1	3
Triticale ❶ Wheat ❶	1	3	7
Oats	3	3	7
Sorghum ❸	3	7	10
Balansa clover Faba beans Lentils Lucerne Medic Narbon beans Perennial ryegrass Persian clover Phalaris Subterranean clover Vetch White clover	7	7	10
Linseed Rice	7	7	14
Sunflower ❸	7	10	14
Field peas	7	14	14
Chickpeas ❷ Lupins ❹ Safflower ❷	7	14	21
Navy beans	10	10	14
Cotton	10	14	21
Soybeans	14	14	21
Canola / Rapeseed ❷	14	21	28

IMPORTANT: WHEN APPLIED TO DRY SOILS AT LEAST 15 mm OF RAIN MUST FALL PRIOR TO THE COMMENCEMENT OF THE PLANT-BACK PERIOD.

NOTES:

❶ In Queensland, no rainfall is required to fall prior to commencement of plant-back period for wheat, barley and triticale.

❷ In Queensland, planting of canola / rapeseed, chickpeas and safflower must be delayed for at least 14 days following rainfall of at least 15 mm.

❸ In Central Queensland, when using 1.2 L/ha or less of Abound 400, the plant-back period for sorghum and sunflower is 1 day irrespective of rainfall.

❹ In WA the plant-back period for lupins at all rates is 28 days.

NOTE: Before using Abound 400 in tank mixes with other herbicides, check the plant-back information on all product labels. The time between spraying and planting will be determined by the most residual products, i.e. the product with the longest plant-back period.

COMPATIBILITY

HERBICIDES

Abound 400 is compatible in tank mixes with atrazine, chlorsulfuron, dicamba, dimethoate, glyphosate e.g. Ripper* 480, Lorsban* 500 EC, metsulfuron-methyl, omethoate, paraquat/diquat (e.g. Spray•Seed®), phosmet, and simazine.

INSECTICIDES

Dimethoate, Lorsban* 500EC, omethoate and phosmet can be introduced into the tank mix for specific control to prevent insect damage to emerging crops.

SURFACTANT ADDITION

DO NOT add surfactant except for CONSERVATION TILLAGE where the product is to be tank mixed with a glyphosate product. In this situation always add a 100% non-ionic surfactant in accordance with label directions on the glyphosate product.

DO NOT mix with spraying oils, or any other materials or agricultural chemicals except as directed on this label.

TANK MIXTURES

The Abound 400 DIRECTIONS FOR USE on this label are designed to be used as a tank mixture with glyphosate herbicides. However as shown in the compatibility and surfactant addition sections of this label, it is possible to extend/improve weed control to include other foliage applied and/or residual herbicides and adjuvants.

A mixture of Abound 400 and glyphosate may be tank mixed with the following herbicides, insecticides and adjuvants where recommended in the Directions for Use tables. Read and follow all label Directions, RESTRAINTS and PLANT-BACK PERIODS, WITHHOLDING PERIODS and SAFETY DIRECTIONS for the tank mix products.

MIXING INSTRUCTIONS

Abound 400 mixes readily with water. Ensure the spray tank is free of any residue of previous spray materials.

1. Fill the spray tank with clean water to one half of the required amount and start agitation. Do not use mechanical agitators as these may cause excessive foaming when herbicides are added.
2. Where an acidifying surfactant such as LI-700 is recommended at either 100 mL or 300 mL/100 L, add to tank through top mesh screen.
3. Add recommended herbicide additive / insecticide to the spray tank and mix thoroughly.
4. Add Abound 400 and mix thoroughly.
5. Add the glyphosate product and the remaining water.
6. When a non-ionic surfactant is used, add near the end of the filling process to minimise foaming.
7. Always maintain adequate agitation during application and use the tank mix promptly.

APPLICATION

BOOM EQUIPMENT

Application of Abound 400/glyphosate mixtures in spray volumes of 25-100 L/ha is recommended.

When chlorsulfuron or metsulfuron-methyl herbicides are included in the mixture a minimum spray volume of 30 L/ha are recommended. When simazine is included in the mixture a minimum spray volume of 100 L/ha is recommended. Flat fan nozzle equipment is recommended using pressures in the range 240-280 kPa. Boom height must be set to ensure double overlap of nozzle patterns at the top of the weed canopy.

AERIAL EQUIPMENT

Application of Abound 400/glyphosate mixtures using either Micronair® or boom equipment should occur in a minimum spray volume of 15 L/ha. Droplets with an average size of 250-350 micron diameter are recommended. Swath width should be 15-17 metres.

Application under hot conditions: High temperature and/or low relative humidity cause excessive evaporation of spray droplets which may reduce results. When temperatures reach 25°C increase water volume to 30 L/Ha, and increase droplet size to at least 300 micron diameter. DO NOT apply by aircraft when temperature is above 35°C.

DO NOT use in intensive horticultural cropping areas. Thoroughly wash aircraft, especially landing gear after each day of spraying to remove herbicide residues.

EQUIPMENT MAINTENANCE

Spray solutions of Abound 400 and glyphosate should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fibreglass, plastic-lined containers. Do not mix, store or apply spray solutions in galvanised steel or unlined steel (except stainless steel) containers or spray tanks. Abound 400 and glyphosate spray solutions may react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture that can flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

CLEANING SPRAY EQUIPMENT

Thoroughly clean all equipment after use either by using hot soapy water or 1% solution of ammonia followed by several clean water rinses or use a proprietary cleaner such as Spraymate® Tank & Equipment Cleaner.

If using sulfonylurea herbicides such as chlorsulfuron or metsulfuron-methyl, follow decontamination procedures detailed on those product labels.

RESISTANT WEEDS WARNING

GROUP I HERBICIDE

Abound 400 Herbicide is a member of the Phenoxys group of herbicides. Abound 400 has the disrupters of plant cell growth mode of action. For weed resistance management Abound 400 is a Group I herbicide. Some naturally occurring weed biotypes resistant to Abound 400 and other Group I 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 Abound 400 or other Group I herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Dow AgroSciences Australia Limited accepts no liability for any losses that may result from the failure of Abound 400 to control resistant weeds.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS.

Drift Warning: Direct spray contact or even slight drift may cause severe injury or destruction of any growing crop or other desirable plants including trees and native vegetation. DO NOT use when breeze is blowing towards nearby desirable plants. DO NOT apply under meteorological conditions or from spraying equipment that may cause spray to drift onto nearby susceptible plants, adjacent crops, crop lands or pastures. Equipment settings which produce fine droplets (150 microns or less), winds over 8 km/h, "still air" and hot dry days all contribute to drift. Avoid spray drift onto susceptible crops such as cotton, tobacco, tomatoes, flowers, vegetables, vines, fruit trees, legume crops and pastures, oil seed crops or other susceptible crops and trees (eg Kurrajongs, Belahs, Eucalypts).

DO NOT use unless wind speed is more than 3 kilometres per hour and less than 15 kilometres per hour as measured at the application site.

DO NOT apply with smaller than coarse to very coarse spray droplets according to the ASAE S572 definition for standard nozzles.

PROTECTION OF LIVESTOCK

Low hazard to bees. May be applied at any time as recommended in the DIRECTIONS FOR USE.

PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used container.

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 store near food, feedstuffs, fertilisers or seed.

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.

SPILL AND LEAK MANAGEMENT

Do not touch or walk through spilled material. Wear a face-shield or goggles, overalls buttoned to neck and wrist, chemical resistant gloves and footwear. Stop leak when safe to do so. Dam area and prevent entry into waterways, and drains.

Small spills/leaks: Absorb with material such as sand, soil or sawdust. Collect spilled product and place in sealable container for disposal. Spill residues may be cleaned using water and detergent. Contain and absorb wash water for disposal. Absorb and collect washings and place in the same sealable container for disposal. Dam the area of large spills and report them to Dow AgroSciences Emergency Services at 1-800 033 882.

SAFETY DIRECTIONS

- Poisonous if swallowed.
- Avoid contact with eyes and skin.
- DO NOT inhale spray mist.
- When preparing spray, wear PVC or rubber apron, elbow length PVC gloves and face shield.
- When using the prepared spray, wear face shield. 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)

MATERIAL SAFETY DATA SHEET

Additional information is listed on the Material Safety Data Sheet for **ABOUND 400 HERBICIDE** which is available from Dow AgroSciences on request. Call Customer Service Toll Free on 1-800 700 096 or visit www.dowagrosciences.com.au

NOTICE

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions for use. No warranty of merchantability or fitness for a particular purpose express or implied, extends to the use of the product contrary to label instructions, or under off-label permits not endorsed by Dow AgroSciences, or under abnormal conditions.

APVMA Approval No. 61182/0407

IN A TRANSPORT EMERGENCY ONLY
DIAL 000
FOR POLICE OR FIRE BRIGADE

EMERGENCY RESPONSE (ALL HOURS)
RING FROM ANYWHERE IN AUSTRALIA
1-800 033 882
(LOCAL CALL FEE ONLY)

drumMUSTER eligible container

Dow AgroSciences