

POISON

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

COBBER[®] 475

HERBICIDE

ACTIVE CONSTITUENT:

475g/L 2,4-D present as the dimethylamine + diethanolamine salts

GROUP II 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 NATIVE VEGETATION AND SUSCEPTIBLE CROPS SUCH AS COTTON, GRAPES, TOMATOES, OILSEED CROPS AND ORNAMENTALS.



Nufarm

Grow a better tomorrow.

ON 30 SEPTEMBER 2020 THE APVMA COMMENCED A 12 MONTH PHASE OUT OF PREVIOUS VERSIONS OF ALL 2,4-D LABELS. THE ADDITIONAL INSTRUCTIONS BELOW ARE TO BE FOLLOWED BY USERS.

THE NEW VERSION OF THE PRODUCT LABEL (WHICH WILL REPLACE THESE ADDITIONAL INSTRUCTIONS) HAS NOT YET BEEN ISSUED BY APVMA. NUFARM PLAN TO INTRODUCE THE NEW VERSION AFTER WINTER SOWING IN 2021.

THESE INSTRUCTIONS TAKE EFFECT IMMEDIATELY AND MUST BE READ IN CONJUNCTION WITH THE PREVIOUS VERSION OF THIS PRODUCT LABEL, WHICH IS INCLUDED AFTER THIS ADDITIONAL SECTION.

THESE ADDITIONAL INSTRUCTIONS, AND THE PREVIOUS VERSION OF THIS PRODUCT LABEL, EXPIRE ON 1 OCT 2021.

NOTE: These instructions only apply to this product. Instructions relating to other products have been removed, refer to the APVMA Gazette for the instructions for other products: <https://apvma.gov.au/node/74151>

Where there are contradictions between these additional instructions and the previous version of the label, this additional section is required to be followed. Note that all Nufarm 2,4-D labels were updated by 1 Nov 2019 with very similar instructions to the additional instructions below, so except for increased flexibility for aerial operators in these additional instructions (which were previously allowed through a permit) most users can continue to follow the previous version of the label until 1 Oct 2021 and be compliant with the current APVMA requirements. Always check this additional section, and the previous version of the label, before using this product.

Nufarm have obtained the following permits to ensure the use of booms not capable of being set at 50 cm above the target canopy can continue as they are not otherwise allowed under these additional instructions:

- Higher booms: <http://permits.apvma.gov.au/PER87338.PDF>

For more information visit the Nufarm webpage dedicated to supporting users during this transitional period: <https://nufarm.com/au/2020/10/02/latest-24d-information/>

INSTRUCTIONS FOR PERSONS WHO POSSESS, HAVE CUSTODY OF OR USE THE CANCELLED OR SUSPENDED PRODUCT

A person who possesses, has custody of or uses a product bearing a cancelled or suspended label referred to in the above Tables 1 and 2 in accordance with the instructions contained in this notice, is taken to have been issued with a permit under section 45B(3) of the Agvet Code to possess, have custody of or use the product bearing the cancelled or suspended label in accordance with those instructions.

The instructions in this notice form part of the amended label instructions for a 2,4-D product bearing a cancelled or suspended label.

Use of a 2,4-D product bearing a cancelled or suspended label may only take place in accordance with:

1. the instructions appearing on the cancelled or suspended label attached to the product; and
2. the general instructions in this notice; and
3. the instructions in this notice which correspond to the product's specific group.

POSSESSION OR CUSTODY

A person may possess the product bearing the cancelled or suspended label referred to in the above tables in accordance with its label instructions for 12 months from the Date of Cancellation or Date of Suspension.

USE, SUPPLY OR OTHERWISE DEAL WITH

A person may use the product bearing the cancelled or suspended label referred to in Table 1 or 2 according to its label instructions, including any conditions relating to shelf life or expiry date, and the instructions in this notice, for 12 months from the Date of Cancellation or Date of Suspension.

INSTRUCTIONS FOR USE

Use of a 2,4-D product bearing a suspended or cancelled label may only take place in accordance with:

- the instructions appearing on the suspended or cancelled label attached to the product; and
- the instructions in this notice.

In the event of any inconsistency between the instructions appearing on the suspended or cancelled label for a product and the instructions in this notice, the instructions in this notice are to prevail to the extent of the inconsistency.

These instructions do not authorise any person to use a 2,4-D product bearing a suspended or cancelled label:

- in any situation; or
- at any time; or
- in any state or territory;

if the person would not be authorised to use the product in that situation, at that time, or in that state or territory under the instructions appearing on the suspended or cancelled label attached to the container for the product.

INSTRUCTIONS FOR SUPPLY

A person may supply, or cause to be supplied, at wholesale or retail level the product bearing a cancelled or suspended label referred to in Tables 1 and 2, for 12 months from the Date of Cancellation or Date of Suspension.

The supply of the product bearing a cancelled or suspended label may only take place in accordance with the following conditions (new supply instructions):

1. For products manufactured prior to 1 October 2020: at the time of supply, the supplier must provide to the person taking possession or custody of the product bearing a suspended or cancelled label a copy of these instructions.

Or

For products manufactured on or after 1 October 2020: either a copy of these instructions or the current approved label must be securely affixed to each container of the product.

WARNING—CONTRAVENTIONS

After the day that is 12 months from the Date of Cancellation or Date of Suspension it will be an offence against the Agvet Code to have possession or custody of the products bearing the cancelled or suspended labels with the intention to supply, or to supply the cancelled or suspended products bearing the cancelled or suspended labels. It is an offence to possess, have custody of, use, or otherwise deal with the products bearing the cancelled or suspended labels listed in Tables 1 and 2 in a manner that contravenes the above instructions.

CONSEQUENCES OF FAILING TO COMPLY WITH INSTRUCTIONS

Failing to comply with the instructions in this notice or the instructions detailed in the Gazette amounts to an offence under section 45C(5) of the Agvet Code and may result in civil penalty proceedings under section 45C(7) of the Agvet Code.

If you have any questions, please contact Chemical Review by phone (02 6770 2400) or email (chemicalreview@apvma.gov.au). A summary of the decision is also available on the [APVMA website](#).

DIRECTIONS FOR USE**GENERAL INSTRUCTIONS FOR ALL 2,4-D PRODUCTS BEARING A SUSPENDED OR CANCELLED LABEL**

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.

Restraints

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 tables below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply unless the wind speed is between 3 and 15 kilometres per hour at the application site during the time of application.

DO NOT apply if there are surface temperature inversion conditions present at the application site during the time of application. These conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

Recognising a surface temperature inversion^[3]

A surface temperature inversion is likely to be present if:

- mist, fog, dew or a frost have occurred
- smoke or dust hangs in the air and moves sideways, just above the ground surface
- cumulus clouds that have built up during the day collapse towards evening
- wind speed is constantly less than 11 km/hr in the evening and overnight
- cool off-slope breezes develop during the evening and overnight
- distant sounds become clearer and easier to hear
- aromas become more distinct during the evening than during the day.

Spray timing

- Spray during the day wherever possible. Vertical mixing of the air makes surface temperature inversions unlikely and will reduce the risk of drift caused by surface temperature inversions.
- There is a very low risk of surface temperature inversion when there is continuous overcast weather, with low and heavy cloud and/or wind speed remains above 11km/h for the whole period between sunset and sunrise.
- A lack of suitable weather conditions for spraying over extended periods is not an excuse for spraying in unsuitable conditions.

DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions.

DO NOT apply with spray droplets smaller than VERY COARSE spray droplets according to the ASAE S572.1 definition for standard nozzles.

DO NOT use if rain is likely within 6 hours.

Monitoring and record keeping

Users of this product **MUST** make an accurate written record of the details of each spray application within 24 hours following application and **KEEP** this record for a minimum of 2 years. The spray application details that must be recorded are: 1- date of use with start and finish times of application; 2- the specific location which must include address and paddock/s sprayed; 3- Product trade name (full name) of the product being used; 4- rate of application which must include the amount of product used per hectare and number of hectares applied to; 5- situation, crop or commodity to which the chemical was applied; 6- wind speed and direction during application; 7- air temperature and relative humidity during application; 8- nozzle brand, model, size, type, and spray system pressure measured during application; 9- height of spray boom from ground; 10- name and contact details of person applying this product (Additional record keeping and/or details may be required by the state or territory where this product is used).

Watch for changes in weather conditions. Stop spraying immediately if a surface temperature inversion occurs or if spraying conditions become unsuitable for any other reason.

Advisory for boom sprayer use in cereals, fallow and pasture 1 October to 15 April

Use in cereals, fallow and pastures during the period **3 October to 15 April**, it is advised to:-

Use nozzles that produce **extremely coarse (xc) to ultra coarse (uc) droplets**.

Use higher water rates per ha, to give better efficacy.

Use slower application speeds to allow operators to lower boom heights.

Increasing droplet size and water rates while reducing application speed will assist in mitigating off target inversion drift during summer spraying. Extremely coarse droplets will produce <3% driftable droplets.

^[3] Information from GRDC Fact Sheet: 'Surface Temperature Inversions and Spraying', Jul 2014.

BOOM SPRAYERS (GROUND APPLICATION)

DO NOT apply by a boom sprayer unless the following requirements are met:

- spray droplets not smaller than a VERY COARSE (VC) spray droplet size category (minimum XC between 3 October and 15 April – advisory).
- boom heights 0.5 metres or lower above the target canopy (the higher of either the crop canopy or the targeted weeds)
- minimum distances between the application site and downwind sensitive aquatic and wetland areas including aquacultural ponds, surface streams and rivers (see Aquatic 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for boom sprayers') are observed.
- minimum distances between the application site and downwind sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat (see Terrestrial 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for boom sprayers') are observed. The buffer zones provide guidance but may not always be completely protective of all agricultural crops.

BUFFER ZONES FOR BOOM SPRAYERS:**Group 10 (475 g 2,4-D/L as the DMA/DEA salts):**

Application rate (/ha)	Downwind mandatory no spray zone	
	Aquatic	Terrestrial
Dryland cropping: winter cereals and fallows		
Up to 1.6 L (750 g ae/ha)	10 metres	10 metres
Tropical & subtropical uses: Sugar cane		
Up to 2.3 L (1100 g ae/ha)	20 metres	20 metres
Up to 4.6 L (2200 g ae/ha)	35 metres	30 metres
Tropical & subtropical uses: Peanuts		
Up to 2.3 L (1100 g ae/ha)	20 metres	20 metres
Up to 4.75 L (2250 g ae/ha)	35 metres	30 metres
Pasture		
Up to 5.7 L (2710 g ae/ha)	40 metres	35 metres

DIRECTIONS FOR USE FOR AERIAL APPLICATION

To enable aerial application of 2,4-D products the following instructions are provided:

1. Nozzle selection to achieve mandatory VERY COARSE or Larger Droplet Size Categories for aerial application.**Important information**

These instructions inform users of 2,4-D products how to lawfully comply with the requirement of a VERY COARSE or larger spray droplet size category for aerial spray application.

Complying with the requirement to use a specific droplet size category means using the correct nozzle that will deliver that droplet size category under the spray operation conditions being used. Only the following specific methods can be used for choosing the correct nozzle. Use one of the methods specified in these instructions to select a correct nozzle to deliver a VERY COARSE or larger droplet size category for aerial application.

Instructions for Fixed-Wing Aerial Application – for VERY COARSE droplet size or larger categories

Instructions in this section apply to fixed-wing aerial application of products for which a label or a permit Spray Drift Restraint requires VERY COARSE spray droplet category.

Nozzle choices must be made using Option 1 or 2 below.

Mandatory Instructions for Fixed-Wing Aerial Applications**Option 1**

For up to a maximum aircraft speed of 120 knots and a VERY COARSE droplet size category, USE ONLY narrow angle flat fan nozzles with spray angle less than or equal to 25, orifice size 20 or greater and oriented straight back to the flight direction. USE ONLY a spray system pressure greater than or equal to 4 bar.

Option 2

USE ONLY nozzles rated by the APVMA Approved AAAA Nozzle Calculator or the USDA-ARS Aerial Spray Nozzle Models as VERY COARSE to comply with a product label's requirement for a VERY COARSE spray droplet size category. When using the AAAA Nozzle Calculator or the USDA-ARS Aerial Spray Nozzle Models, aerial applicators must also follow the additional instructions below in (a), (b) and (c).

(a) Aerial applicators must only use the droplet size category given in the nozzle calculator at the $D_{V(0.1)}$ position to identify a nozzle to comply with the required spray droplet category. The categories shown at the $D_{V(0.5)}$ and the $D_{V(0.9)}$ positions in the calculator must not be used for making a nozzle selection.

(b) Aerial applicators must not apply at airspeeds greater than that speed used to select the nozzle. A nozzle identified as VERY COARSE can also be used at slower airspeeds provided that the nozzle angle and system pressure are kept the same.

(c) When a particular pesticide product is chosen within the nozzle calculator as one of the conditions set to select a nozzle, then aerial applicators must use that specific pesticide product with that nozzle.

Note – contact the Aerial Application Association of Australia (aaaa.org.au) for information on how to obtain access to the APVMA Approved AAAA Nozzle Calculator; the USDA-ARS Aerial Spray Nozzle Models can be downloaded from their website (ars.usda.gov/plains-area/college-station-tx/southern-plains-agricultural-research-center/aerial-application-technology-research/docs/a-models).

Instructions for Helicopter Aerial Application – for VERY COARSE droplet size or larger categories

Instructions in this section apply to helicopter application of products where a label or a permit Spray Drift Restraint requires VERY COARSE spray droplet category.

Nozzle choices must be made using Option 1 or 2 below.

Mandatory Instructions for helicopter Aerial Applications**Option 1**

For helicopter applications requiring a VERY COARSE spray droplet size category, USE ONLY nozzles selected with the methods previously specified for fixed-wing aircraft in Section 1.

Option 2

When using Accu-Flo nozzles (Bishop Equipment Mfg Inc), USE ONLY nozzles rated according to the manufacturer's instructions to select the correct nozzle to apply a VERY COARSE or an EXTREMELY COARSE droplet size category to satisfy the label requirement for one of those specific droplet size categories.

Examples of nozzles and settings that can achieve VERY COARSE or Larger Droplet Size Categories using Section 1, Option 2 include:

For flying speeds up to 120 knots (Fixed wing aircraft):						
Nozzle model	Fan Angle (deg)	Deflector	Orifice Size	Orientation to airstream (deg)	Pressure (psi)	Category
CP11TT straight stream	-	--	10	0	40 or higher	Very Coarse
			15		50 or higher	
			20		60 or higher	
CP09	-	0	0.078	0	70 or higher	
			0.125		90 or higher	
For flying speeds up to 100 knots (Fixed wing aircraft and Helicopters):						
Nozzle model	Fan Angle (deg)	Deflector	Orifice Size	Orientation to airstream	Pressure (psi)	Category
CP09	-	0	0.078	0	30 or higher	Very Coarse
			0.125		35 or higher	
CP11TT straight stream	-		10 or larger	0	40 or higher	Extremely Coarse
For flying speeds up to 60 knots (Helicopters):						
Nozzle model	Fan Angle (deg)	Deflector	Orifice Size	Orientation to airstream	Pressure (psi)	Category
CP09	-	30	0.078	0	30 or higher	Very Coarse
			0.125		30 or higher	Extremely Coarse
CP03	0		0.062 or larger	0	30	Extremely Coarse
STANDARD Flat Fan	40	-	6 or larger	0	30 or higher	Very Coarse
STANDARD Flat Fan	40	-	10 or larger	0	30 or higher	Extremely Coarse
CP11TT FF40	40		6 or larger	0	30 or higher	Very Coarse

AERIAL APPLICATION

DO NOT apply by aerial application unless the following requirements are met:

- spray droplets not smaller than a VERY COARSE (VC) spray droplet size category
- release heights 5 metres or lower above the target canopy
- minimum distances between the application site and downwind sensitive aquatic and wetland areas including aquacultural ponds, surface streams and rivers (see Aquatic 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for aircraft') are observed.
- minimum distances between the application site and downwind sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat (see Terrestrial 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for aircraft') are observed. The buffer zones provide guidance but may not always be completely protective of all agricultural crops.

BUFFER ZONES FOR AIRCRAFT FOR SUGARCANE BASED ON LOW APPLICATION RATE: (product groups 2, 3, 4, 5, 6, 7, 8a, 8b, 9a, 9b, 10, 11, 12, 13, 16, 14a, 14b): 3 metre release height or lower above the target canopy

Application rate (/ha)	Spray droplet size category	Downwind mandatory no spray zone			
		Fixed wing		Helicopter	
		Aquatic	Terrestrial	Aquatic	Terrestrial
Tropical & subtropical uses: Sugarcane					
Up to 1080 g ae/ha (2.6 L/ha)	Very Coarse or larger	95 metres	90 metres	90 metres	85 metres
	Extremely Coarse or larger	70 metres	70 metres	70 metres	65 metres
Up to 1250 g ae/ha (2.6 L/ha)	Very Coarse or larger	110 metres	100 metres	95 metres	95 metres
	Extremely Coarse or larger	80 metres	75 metres	75 metres	70 metres

BUFFER ZONES FOR AIRCRAFT: 3 metre release height or lower above the target canopy

Group 10 (475 g 2,4-D/L as the DMA/DEA salts): 3 metre release height or lower above the target canopy

Application rate (/ha)	Downwind mandatory no spray zone			
	Fixed wing		Helicopter	
	Aquatic	Terrestrial	Aquatic	Terrestrial
Dryland cropping: winter cereals and fallows				
Up to 1.6 L (750 g ae/ha)	75 metres	70 metres	70 metres	70 metres
Tropical & subtropical uses: Sugar cane				
Up to 4.6 L (2200 g ae/ha)	180 metres	170 metres	150 metres	140 metres
Tropical & subtropical uses: Peanuts				
Up to 4.75 L (2250 g ae/ha)	180 metres	170 metres	150 metres	140 metres

BUFFER ZONES FOR AIRCRAFT: 5 metre release height or lower above the target canopy**Group 10 (475 g 2,4-D/L as the DMA/DEA salts): 5 metre release height or lower above the target canopy**

Application rate (/ha)	Downwind mandatory no spray zone			
	Fixed wing		Helicopter	
	Aquatic	Terrestrial	Aquatic	Terrestrial
Dryland cropping: winter cereals and fallows				
Up to 1.6 L (750 g ae/ha)	130 metres	130 metres	120 metres	110 metres
Tropical & subtropical uses: Sugar cane				
Up to 4.6 L (2200 g ae/ha)	450 metres	400 metres	250 metres	225 metres
Tropical & subtropical uses: Peanuts				
Up to 4.75 L (2250 g ae/ha)	450 metres	400 metres	250 metres	225 metres

Pasture application by air – 5 m release height

These pasture uses and application rates are highly variable between different product groups. The highest rates for individual product groups that are **supported** are modelled below and the corresponding buffer zones are provided for two wind speed ranges.

NOTE:- some rates ARE NOT SUPPORTED for Fixed Wing aircraft and MUST NOT be applied by fixed wing aircraft

Application rate 2710 g ae/ha (5.7 L/ha), VERY COARSE droplet size, Aerial application (Group 10, 23): 5 m release height or lower above target canopy
Aquatic protection

	Downwind no-spray zone	
Wind speed range at time of application	Fixed Wing	Helicopter
From 3 to 7 kilometres per hour	500 metres	300 metres
From 7 to 14 kilometres per hour	550 metres	300 metres

Terrestrial protection (2,4-D salt formulations)

	Downwind no-spray zone	
Wind speed range at time of application	Fixed Wing	Helicopter
From 3 to 7 kilometres per hour	475 metres	275 metres
From 7 to 14 kilometres per hour	500 metres	275 metres

Pasture application – 3 m release height

The highest rates for individual product groups that are **supported** are modelled below and the corresponding buffer zones are provided for two wind speed ranges.

NOTE:-Some rates ARE NOT SUPPORTED for Fixed Wing aircraft and MUST NOT be applied by fixed wing aircraft

Application rate 2710 g ae/ha (5.7 L/ha), VERY COARSE droplet size, Aerial application (Group 10, 23): 3 m release height above target canopy
Aquatic protection

	Downwind no-spray zone	
Wind speed range at time of application	Fixed Wing	Helicopter
From 3 to 7 kilometres per hour	250 metres	150 metres
From 7 to 14 kilometres per hour	250 metres	180 metres

Terrestrial protection (2,4-D salt formulations)

	Downwind no-spray zone	
Wind speed range at time of application	Fixed Wing	Helicopter
From 3 to 7 kilometres per hour	225 metres	140 metres
From 7 to 14 kilometres per hour	225 metres	170 metres

BUFFER ZONES FORESTRY USES FOR APPLICATION BY HELICOPTER AND ACCU-FLO NOZZLE, 0.020 ORIFICE OR LARGER (product groups 2, 3, 4, 5, 6, 7, 8a, 8b, 9a, 9b, 10, 11, 12, 13, 16, 14a, 14b)

DO NOT apply by fixed wing aircraft

DO NOT apply by helicopter unless the following requirements are met:

- Accu-Flo™ nozzles with orifice size 0.020 or larger are used.
- flying speed 102 km/hr (55 knots) or slower
- release heights 15 metres or lower above the target canopy
- minimum distances between the application site and downwind sensitive aquatic and wetland areas including aquacultural ponds, surface streams and rivers (see Aquatic 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for aircraft') are observed.
- minimum distances between the application site and downwind sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat (see Terrestrial 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for aircraft') are observed. The buffer zones provide guidance but may not always be completely protective of all agricultural crops.

Application rate (/ha)	Wind speed range at time of application	Downwind mandatory no spray zone	
		Helicopter	
		Aquatic	Terrestrial
Release heights 15 metres or lower above the target canopy			
Up to 1000 g ae/ha (2.1 L/ha)	From 7 to 15 kilometres per hour	75 metres	75 metres
	From 3 to 7 kilometres per hour	35 metres	35 metres
Release heights 10 metres or lower above the target canopy			
Up to 1000 g ae/ha (2.1 L/ha)	From 7 to 15 kilometres per hour	45 metres	45 metres
	From 3 to 7 kilometres per hour	15 metres	15 metres

BELOW IS THE PREVIOUS VERSION OF THIS LABEL WHICH WILL EXPIRE ON 1 OCT 2021. UNTIL THEN, IT MUST BE READ IN CONJUNCTION WITH THE ADDITIONAL INSTRUCTIONS ABOVE.

THE NEW VERSION OF THE PRODUCT LABEL WHICH WILL REPLACE THESE ADDITIONAL INSTRUCTIONS HAS NOT YET BEEN ISSUED BY APVMA. NUFARM ARE PLANNING ON INTRODUCING THE NEW VERSION AFTER WINTER SOWING IN 2021.

DIRECTIONS FOR USE

RESTRAINTS

DO NOT spray if rain seems likely within 6 hours.

DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions.

SPRAY DRIFT RESTRAINTS

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.

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 tables below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply unless the wind speed is between 3 and 15 kilometres per hour at the application site during the time of application.

DO NOT apply if there are surface temperature inversion conditions present at the application site during the time of application. These conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

Recognising a surface temperature inversion

A surface temperature inversion is likely to be present if:

- Mist, fog, dew or a frost have occurred
- Smoke or dust hangs in the air and moves sideways, just above the ground surface
- Cumulus clouds that have built up during the day collapse towards evening
- Wind speed is constantly less than 11 km/hr in the evening and overnight
- Cool off-slope breezes develop during the evening and overnight
- Distant sounds become clearer and easier to hear
- Aromas become more distinct during the evening than during the day.

Information from GRDC Fact Sheet: 'Surface Temperature Inversions and Spraying', Jul 2014.

Spray timing

- Spray during the day wherever possible. Vertical mixing of the air makes surface temperature inversions unlikely and will reduce the risk of drift caused by surface temperature inversions.
- There is a very low risk of surface temperature inversion when there is continuous overcast weather, with low and heavy cloud and/or wind speed remains above 11km/h for the whole period between sunset and sunrise.
- A lack of suitable weather conditions for spraying over extended periods is not an excuse for spraying in unsuitable conditions.

DO NOT apply with spray droplets smaller than **VERY COARSE** spray droplets according to the "Instructions for Mandatory **VERY COARSE** or Larger Droplet Size Categories" section of the GENERAL INSTRUCTIONS.

Monitoring and record keeping

Users of this product **MUST** make an accurate written record of the details of each spray application within 24 hours following application and **KEEP** this record for a minimum of 2 years. The spray application details that must be recorded are: **1-** date of use with start and finish times of application; **2-** the specific location which must include address and paddock/s sprayed; **3-** Product trade name (full name) of the product being used; **4-** rate of application which must include the amount of product used per hectare and number of hectares applied to; **5-** situation, crop or commodity to which the chemical was applied; **6-** wind speed and direction during application; **7-** air temperature and relative humidity during application; **8-** nozzle brand, model, size, type, and spray system pressure measured during application; **9-** height of spray boom from ground; **10-** name and contact details of person applying this product (Additional record keeping and/or details may be required by the state or territory where this product is used).

Watch for changes in weather conditions. Stop spraying immediately if a surface temperature inversion occurs or if spraying conditions become unsuitable for any other reason.

ADVISORY FOR BOOM SPRAYER USE IN CEREALS, FALLOW AND PASTURE 3RD OCTOBER TO 15TH APRIL

USE IN CEREALS, FALLOW AND PASTURES DURING THE PERIOD **3RD OCTOBER TO 15TH APRIL**, IT IS ADVISED TO:-

USE NOZZLES THAT PRODUCE **EXTREMELY COARSE (XC) TO ULTRA COARSE (UC) DROPLETS**.

USE HIGHER WATER RATES PER HA, TO GIVE BETTER EFFICACY.

USE SLOWER APPLICATION SPEEDS TO ALLOW OPERATORS TO LOWER BOOM HEIGHTS.

INCREASING DROPLET SIZE AND WATER RATES WHILE REDUCING APPLICATION SPEED WILL ASSIST IN MITIGATING OFF TARGET INVERSION DRIFT DURING SUMMER SPRAYING. EXTREMELY COARSE DROPLETS WILL PRODUCE <3% DRIFTABLE DROPLETS.

BOOM SPRAYERS (ground application)

DO NOT apply by a boom sprayer unless the following requirements are met:

- spray droplets not smaller than a VERY COARSE (VC) spray droplet size category (minimum XC between 3 October and 15 April - advisory)
- boom heights 0.5 metres or lower above the target canopy (The higher of either the crop canopy or the targeted weeds)
- minimum distances between the application site and downwind sensitive aquatic and wetland areas including aquacultural ponds, surface streams and rivers (see Aquatic 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for boom sprayers') are observed.
- minimum distances between the application site and downwind sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat (see Terrestrial 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for boom sprayers') are observed. The buffer zones provide guidance but may not always be completely protective of all agricultural crops.

BUFFER ZONES FOR BOOM SPRAYERS:

Application rate (/ha)	Downwind mandatory no spray zone	
	Aquatic	Terrestrial
Dryland cropping: winter cereals and fallows		
Up to 2.2 L	20 metres	20 metres
Tropical & subtropical uses: sugarcane		
Up to 2.3 L	20 metres	20 metres
Up to 4.6 L	35 metres	30 metres
Tropical and subtropical uses: peanuts		
Up to 2.3 L	20 metres	20 metres
Up to 4.75 L	35 metres	30 metres
Pasture		
Up to 4.2L	30 metres	30 metres
Up to 5.7 L	40 metres	35 metres

AERIAL APPLICATION

DO NOT apply by aerial application unless the following requirements are met:

- spray droplets not smaller than a VERY COARSE (VC) spray droplet size category.
- release heights 5 metres or lower above the target canopy
- minimum distances between the application site and downwind sensitive aquatic and wetland areas including aquacultural ponds, surface streams and rivers (see Aquatic 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for aircraft') are observed.
- minimum distances between the application site and downwind sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat (see Terrestrial 'Downwind mandatory no-spray zone' section of the following table titled 'Buffer zones for aircraft') are observed. The buffer zones provide guidance but may not always be completely protective of all agricultural crops. **NOTE:- some rates ARE NOT SUPPORTED for Fixed Wing aircraft and MUST NOT be applied by fixed wing aircraft**

BUFFER ZONES FOR AIRCRAFT: 3 metre release height or lower above the target canopy

Application rate (/ha)	Downwind mandatory no spray zone			
	Fixed wing		Helicopter	
	Aquatic	Terrestrial	Aquatic	Terrestrial
Dryland cropping: winter cereals and fallows				
Up to 2.2 L	95 metres	90 metres	90 metres	85 metres
Tropical & subtropical uses: Sugarcane				
Up to 4.6 L	180 metres	170 metres	150 metres	140 metres
Tropical & subtropical uses: Peanuts				
Up to 4.75 L	180 metres	170 metres	150 metres	140 metres
Pastures				
Up to 4.2 L, wind speed range at time of application from 3 to 7 kilometres per hour	160 metres	140 metres	90 metres	85 metres
Up to 4.2 L, wind speed range at time of application from 7 to 14 kilometres per hour	160 meters	150 metres	140 metres	130 metres
Up to 5.7 L, wind speed range at time of application from 3 to 7 kilometres per hour	250 metres	225 metres	150 metres	140 metres
Up to 5.7 L, wind speed range at time of application from 7 to 14 kilometres per hour	250 meters	225 metres	180 metres	170 metres

BUFFER ZONES FOR AIRCRAFT: 5 metre release height or lower above the target canopy

Application rate (/ha)	Downwind mandatory no spray zone			
	Fixed wing		Helicopter	
	Aquatic	Terrestrial	Aquatic	Terrestrial
Dryland cropping: winter cereals and fallows				
Up to 2.2 L	180 metres	170 metres	140 metres	140 metres
Tropical & subtropical uses: sugarcane				
Up to 4.6 L	450 metres	400 metres	250 metres	225 metres
Tropical & subtropical uses: peanuts				
Up to 4.75 L	450 metres	400 metres	250 metres	225 metres
Pastures				
Up to 4.2 L, wind speed range at time of application from 3 to 7 kilometres per hour	375 metres	350 metres	190 metres	180 metres
Up to 4.2 L, wind speed range at time of application from 7 to 14 kilometres per hour	375 metres	350 metres	220 metres	210 metres
Up to 5.7 L, wind speed range at time of application from 3 to 7 kilometres per hour	500 metres	475 metres	300 metres	275 metres
Up to 5.7 L, wind speed range at time of application from 7 to 14 kilometres per hour	550 metres	500 metres	300 metres	275 metres

DIRECTIONS FOR USE**1. CONSERVATION TILLAGE**

REFER TO SECTION "SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT" BEFORE APPLICATION.

SITUATION & CROP	WEEDS	STATE	RATE	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, Navybeans, 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	All States	415mL-1.2L/ha plus, Gladiator® Maximus, Gladiator®, Glyphosate CT or Credit® Broadhectare Herbicide plus Bonus® or Roundup* PowerMAX or Roundup* CT or weedmaster® DUO 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 10cm diameter/high. Always add the mixture product at recommended label rates. At the time of application, all weeds must be actively growing and not under stress from low moisture, frost, cold, disease or water-logging. If grazing has occurred allow regrowth to 6-8cm before spraying and use higher rate. Always add either a non-ionic surfactant (eg. Nufarm Activator®) or LI 700® in accordance with label directions on the mixture product. Use LI 700® with the mixture product if insecticides will be included in the tank mixture or if faster brownout of weeds is required.
	Seedlings of: Australian bindweed, Bellvine, Caltrop, New Zealand spinach, Raspweed	NSW, ACT, Qld only		
	Ageratum (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	All states	570-760mL/ha plus Gladiator® Maximus, Gladiator®, Glyphosate CT or Credit® Broadhectare Herbicide plus Bonus® or Roundup* PowerMAX or Roundup* CT or weedmaster® DUO at recommended label rates	
	Bathurst burr, Blackberry nightshade, Californian burr, Horehound seedlings, Lincoln weed seedlings, Marshmallow seedlings, Sorrel seedlings, Thornapple, Volunteer vetch, Volunteer safflower, Common ice-plant, Storksbill/Erodium seedlings, Ivyleaf speedwell, Melilotus, Shepherd's purse, Skeleton weed (Suppression only), Ward's weed, Wireweed seedlings (Hogweed), White clover, Sub-clover		760mL-1.1L/ha plus Gladiator® Maximus, Gladiator®, Glyphosate CT or Credit® Broadhectare Herbicide plus Bonus® or Roundup* PowerMAX or Roundup* CT or weedmaster® DUO at recommended label rates	
	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.	NSW, ACT, Qld only	1.1-1.7L/ha plus Gladiator® Maximus, Gladiator®, Glyphosate CT or Credit® Broadhectare Herbicide plus Bonus® or Roundup* PowerMAX or Roundup* CT or weedmaster® DUO at recommended label rates	
PASTURES: Conservation Tillage - Direct Drilling, Surface Sowing or Fallow Maintenance	Charlock, Mustards, Shepherd's purse, Saffron, Slender, Spear & Variegated thistles, Turnip weed, Wild radish, Wild turnip	All States	695mL-2.1L/ha	Apply to actively growing young weeds before sowing. Observe plant back periods given in the table on this leaflet.
	Clover, Sorrel		1.45L/ha plus 280-400mL/ha Kamba® 500	Apply to actively growing plants in Autumn. DO NOT sow pasture seed for at least 30 days after application.

2. FIELD CROPS

REFER TO SECTION "SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT" BEFORE APPLICATION.

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS	
Wheat	Refer Weed Table	NSW, ACT, SA, Vic, Qld, Tas only	425mL-1.8L/ha Refer to weed table for specific rates in each state	Apply after the first node can be felt at the base of a tiller and before swelling of the head can be felt in a tiller (NSW, ACT, SA only). Apply from tillering to boot stage (Vic only). Apply from mid-tillering to before boot stage (Qld only). Apply at 5 leaf to fully tillered (Tas only).	
Barley					
Cereal rye, Triticale					
Oats					
Cereals: Wheat, Oats, Barley	Cape tulip	WA only	885mL-1.65L/ha	Apply from the 5 leaf stage up to jointing stage (Z15-33). Apply after the 6 leaf stage (Z16) for Cranbrook, Jacup, Aroona and Spear wheat and Mortlock oats to avoid possible damage. DO NOT spray if lucerne is present. WEED STAGE: 10-15cm. Docks should be sprayed before 5 leaf stage. Cape Tulip – low rate for cormils only.	
	Dock, Saffron thistle		1.45L/ha		
	Indian hedge mustard, London rocket, Lupin, Rapistrum, Wild radish		1L/ha		
	Wild turnip		885mL/ha		
	Capeweed, Double gee, Erodium, London rocket, Lupin, Mustard, Rapistrum, Wild radish, Wild turnip		235mL/ha plus 500mL/ha Nufarm Flowable Diuron		
Wheat, Barley	Wild radish	NSW, ACT, SA, Vic only	105mL/ha plus 850g/ha Tribunex* Herbicide	Spray 2-6 weeks after sowing and not later. DO NOT use on crops undersown with lucerne.	
Fallow, Stubble Spray prior to Direct Drilling or Sowing a) Winter Cereals	Refer Weed Table	Vic only	295mL-1.8L/ha	Observe plant back periods given in the table on this booklet. Can be mixed with Lusta®, Glean*, Nuquat® or Revolver® 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.	
		NSW, ACT, only	760mL-2.2L/ha		
Qld only					
b) Winter Cereals and Peanuts					
Millet	Refer Weed Table	NSW, ACT, SA, Vic only	760mL-1.45L/ha	Spray when secondary roots have developed, when fully tillered and before heads start to form at the base of the tillers. DO NOT use on Panorama or Panicum.	
		Qld only	760mL-1.1L/ha		
Saccaline, Broom millet, Millet		Cape tulip, Dock, Saffron thistle, Indian hedge mustard, London rocket, Lupin, Rapistrum, Radish, Wild turnip	WA only		1.45L/ha
Sugar cane	Bindy eye (Star burr), Blue top, Cobbler's pegs, Fleabanes, Jute, Leucas, Needle burr, Spear thistle, Water primrose, Ipomea vines, Convolvulus vines	Qld only	2.3-4.6L/ha	Add 60-120mL Nufarm Activator® to 100L of spray mixture. Agitate well. DO NOT use on Q63, Q67, Q80 or Q96 varieties.	
			4.6L/ha		
Peanuts	Broadleaf weeds except Noogoora burr, Grasses except Mossman burr		2.3L or 4.75L/ha	LOWER RATE: Apply as BAND SPRAY as soon as possible after planting in a 55cm band. HIGHER RATE: Apply as OVERALL SPRAY after planting and before crop emergence. Some crop damage may occur if heavy rain falls between application and crop emergence.	
Harvest Aid or Salvage Spray- Winter cereals	Dessicate Broadleaf weeds	All States	1.6-2.15L/ha	Apply after dough stage.	

3. PASTURES, NON-AGRICULTURAL, RIGHTS OF WAY, INDUSTRIAL, LAWNS

REFER TO SECTION "SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT" BEFORE APPLICATION.

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS
Pastures & Non-agricultural	Refer Weed Table	NSW, ACT, Qld, SA, Tas only	695mL-2.2L/ha	Pasture legumes including lucerne, clovers and medics may be damaged unless well protected by grasses. Spot spraying is preferred.
	Amsinckia, Docks, Bindweed, Caltrop, Flatweed, Spear thistle, Capeweed, Double gee, Saffron thistle, Mustard, Wild radish, Wild turnip, Annual thistles, Paterson's curse	WA only	1.45L/ha	For pastures not containing legumes. Only seedling Docks, Spear thistle and Saffron thistle will be controlled.
	Afghan melons		2.1L/ha plus 1% crop oil	Spray when plants are actively growing preferably before flowering or vining.
	Paddy melons		1-1.45L/ha	
	Prickly saltwort (Roly poly)		2.1L/ha	Spray when plants are small.
	Stinkwort		2.1-4.2L/ha plus surfactant	Best results are obtained when plants are small. Use high rate on larger plants.
	Dove weed		4.2L/ha	Spray after good emergence of seedlings.
	Pastures, Rights of Way & Industrial		Boxthorn, Boneseed, Hawthorn	Vic, SA, only
Groundsel		NSW, ACT, Qld, SA only	1.3L/15L water	MISTING: Lightly wet plants.
			380mL/100L water	HIGH VOLUME: Thoroughly wet plants.
			315mL/15L water	CUTSTUMP: Swab the cut stump within one hour of cutting. Apply by a pouring can or knapsack spray.
			3.8-5.7L/ha	AERIAL APPLICATION: Spray when Groundsel is actively growing.
Lantana	NSW, ACT, Qld, SA only	380mL/100L water	Use a very coarse spray with sufficient pressure to penetrate canopy and wet stems as well as foliage. Spray at the end of a wet Summer (March to May). Defoliation should occur but respraying of new growth will be necessary in the following Autumn. Broadcast grass seed and keep stock off following Summer to allow the pasture to establish. Damage may result to pasture legumes.	
Mother of millions	NSW, ACT only	520mL/100L water	Hand gun and Knapsack only: a thorough coverage of leaves and plantlets is necessary. Use Nufarm Chemwet 1000 at the rate of 1mL of surfactant per 1L of mixture.	
Noogoora burr, Weir vine (Ipomea)	Qld only	210mL/100L water	In all cases apply to young, actively growing weeds, ensuring thorough coverage. ^ Spray rosette stage. # Repeat spraying if necessary.	
Annual & Perennial pigweed, Artichoke thistle, Bathurst burr, Billygoat weed, Blue snakeweed, Burr medic, Clockweed^, Fleabanes, Galvanised burr, Hemlock, Hoary cress, #Kyalinga weed (Whisker grass), Knobweed, Milky cotton bushes, Parthenium weed, Paterson's curse, Saffron thistle, Star burr, Thornapple, Variegated thistle^		380mL/100L water		
Rubber vine		210mL/10L water		Apply to freshly cut stump.

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS
Pastures – Spray/Graze Techniques				Precaution: An increased quantity of poisonous plants may be eaten by stock using spray-graze eg. Caltrop, Capeweed, Paterson's curse and Variegated thistle and deaths could result from causes such as nitrate poisoning. With Paterson's curse, preferably graze stock soon destined for slaughter and avoid extended period of grazing. Avoid grazing with young or breeding stock. DO NOT graze horses or pigs on Paterson's curse.
	Amsinckia, Thistles, Capeweed, Double gee, Mustard, Paterson's curse, Wild turnip, Wild radish, Docks, Geranium, Erodium	SA only	695mL/ha	Apply from 6 weeks after opening rains in Autumn until the end of August. Seven days after spraying stock paddock at 4-5 times normal rate, preferably with sheep. Maintain this level of grazing for 6 weeks or until pasture shows signs of over grazing. Then return to normal stocking levels. Use high stocking rates in following Spring to prevent weeds from flowering. Repeat treatments maybe required for 2-3 years for complete control.
	Annual thistles, Capeweed, Double gee, Mustards, Paterson's curse, Turnip, Saffron thistle, Spear thistle	Tas, Vic, only		
	Amsinckia, Docks (seedling only), Capeweed, Double gee, Mustard, Wild radish, Wild turnip, Paterson's curse, Annual thistles	WA only	820mL/ha	Apply to Saffron thistle at the end of September when plants are running up to flower. Sub clovers may be damaged at this rate and use is not recommended for all medic pastures.
	Spear thistle, Saffron thistle		1.6L/ha	
	Melons		2.1L/ha	
	Docks	Vic. only	1.45L/ha	Apply in September only and follow other recommendations above.
	Caltrop, Capeweed, Charlock, Mustards, Paterson's curse, Shepherd's curse, Saffron, Slender, Spear or Variegated thistle, Turnip weed, Wild radish, Wild turnip	NSW, ACT only	380mL-1.45L/ha	Spray actively growing 6-8 week old weeds. Introduce stock 7-10 days after spraying, preferably sheep (cattle are less effective). Stocking rate should be at least 5 times heavier than normal until weeds have been reduced, but before survival of desirable pasture species is threatened. Lucerne and Medics may be damaged and should be grazed short before spraying. Other legumes may be affected.
Lawns	Refer Weed Table	WA & Qld only	3.4–6.8mL/L water	Wet foliage thoroughly.

4. SPOT SPRAYING

REFER TO SECTION "SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT" BEFORE APPLICATION

Situation & Crop	Weeds Controlled	State	Critical Comments
High Volume Spraying	Refer to Weed Table	All States	Add 1/10 th of rate on weed table to 150L of water. Each 150L of mix will cover 1000m ² (1/10 th /ha). Eg. If rate in weed table is 1.5L use 150mL/150L water.
Knapsack Application			Add 1/100 th rate on weed table to 10L of water. Each 10L of mix will cover 100m ² (1/100 th /ha). Eg. If rate in weed table is 1.5L use 15mL/10L water.

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

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

WITHHOLDING PERIODS

GRAZING: PASTURE, CEREAL CROPS – DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION

HARVEST: NOT REQUIRED WHEN USED AS DIRECTED.

WEED TABLE: The rates listed in the Weed Table below are spot spraying rates for use in crop or pasture, or for use where weeds only are present and no crop or pasture is involved.

NOTE: Where weeds are to be sprayed in a CROP or PASTURE (other than spot spraying) use only the rates given for the particular crop or situation indicated under the Directions for Use.

WEEDS	APPLICATION RATE PER HECTARE							CRITICAL COMMENTS
	CROP				PASTURE			
	VIC	NSW, ACT	SA	QLD	TAS	WA	NSW, ACT, SA, QLD, TAS ONLY	
Amaranthus spp.	-	695mL-1.45L	-	1.1L	-	-	-	Spray young plants.
Apple of Peru	-	695mL-1.45L	-	1.1L	-	-	-	Spray young plants. Susceptible when young.
Bathurst burr	-	1-1.45L	-	1.1L	-	-	1-1.45L NOT SA	Spray seedlings only.
Blackberry nightshade	-	695mL-1.45L	-	1.1L	-	-	-	
California burr	-	1-1.45L	-	1.1L	-	-	1-1.45L NOT SA	Spray seedlings only.
Cape tulip	-	-	-	-	-	885mL-1.65L	-	Low rate for comils only*.
Capeweed	1.8L	-	2.2L	-	1.8L	-	2.15-3.7L	Spray seedlings to rosette stage.
Caltrop	-	1-2.2L	-	1.1L	-	-	-	Moderately susceptible.
Charlock	695mL-1L	695mL-1.45L	695mL	-	1.8L	-	1-1.45L	Spray at rosette stage.
Clover	-	1.6L	-	-	-	-	-	
Common ice plant	-	-	1.45L	-	-	-	-	
Docks	1.8L	-	1.8L	1.8L	1.8L	1.45L	4.2L SA ONLY	Spray at multiple leaf stage – effective only on seedlings.
Fat hen	-	760mL-2.2L	-	1.1L	1.8L	-	-	Spray pre-flowering.
Fumitory - red	-	-	2.2L	-	-	-	-	
Fumitory - white	1L	-	695mL	-	-	-	-	Spray at multiple leaf stage.
Hexham scent/Melilotus	1.8L	-	1.45L	1.8L	-	-	1.45-2.15L	Spray at multiple leaf stage, before seeding.
Hoary cress	1.1-1.8L	1.45-2.15L	1.8L	1.8L	-	-	1.9-2.15L	Spray rosettes and pre-flowering.
Hogweed/Wireweed	1.8L	-	-	1.8L	-	-	-	Spray at multiple leaf stage (Vic.). Spray at seedling and young plant stage (Qld).
Horehound	-	-	1.8L	-	-	-	2.9-4.2L SA ONLY	Spray seedlings.
Khaki weed	-	-	-	-	-	-	1.45-2.8L NOT SA	Spray seedlings only.
Lincoln weed	-	-	2.15L	-	-	-	-	Spray early rosettes.
London rocket	-	-	-	-	-	1L	-	
Lupins	-	1-2.15L	-	-	-	-	-	
Mexican poppy	-	-	-	1.8L	-	-	-	Spray seedlings – plants become more resistant with age.
Mintweed	-	1.45L	-	1.1L	-	-	-	Spray seedlings – resistant in later stages.
Mustards	295-695mL	695mL-1.45L	695mL-1.8L	1.1L	-	1L	695mL-1.45L	Spray at 2-4 leaf up to rosette stage.
New Zealand spinach	-	1.45-2.15L	-	-	-	-	-	
Noogoora burr	-	1-1.45L	-	1.1L	-	-	1-1.45L NOT SA	Spray seedlings only.

WEEDS	APPLICATION RATE PER HECTARE							CRITICAL COMMENTS
	CROP					PASTURE		
	VIC	NSW, ACT	SA	QLD	TAS	WA	NSW, ACT, SA, QLD, TAS ONLY	
Paterson's curse	-	1.45-2.15L	-	1.8L	-	1.65L	2.15-2.9L	Spray rosettes or before plants have 10 leaves. Later stages harder to kill.
Potato weed	-	695mL-1.45L	-	1.1L	-	-	-	
Rapeseed	-	1-2.15L	-	-	-	-	-	
Rough poppy	-	1.45L	-	-	-	-	-	
Safflower	-	695mL-1.8L	-	-	-	-	-	
Shepherd's purse	-	1.45-2.15L	-	-	1.8L	-	1-1.45L	Spray young rosettes.
Skeleton weed	1.8L	1.45-2.15L	1.8L	-	-	-	1.9-2.9L	Spray rosettes before aerial growth commences.
Sorrel	1.8L	2.15L	1.8L	-	-	-	-	Only moderately susceptible.
Speedwell Ivyleaf	-	-	1.45L	-	-	-	-	
Spiny emex	-	-	-	1.8L	-	-	-	Only young plants are susceptible.
Stinkwort	-	1-1.8L	-	-	-	-	-	
Storkbill/Erodium	-	-	-	-	1.8L	-	2.1-4.2L	Spray seedlings to young rosettes.
Sunflower (seedlings)	1.8L	695mL-1.8L	-	1.1L	-	-	-	
Thistle - Californian	-	-	-	-	760mL	-	4.2-4.9L	Repeated applications may be necessary (NSW, Tas only).
- Saffron	1.45L	695mL-1.8L	1.8L	1.8L	1.3L	1.45L	1.45-2.15L	Low rate only sufficient to control weeds in crops at rosette stage when sprayed early.
- Slender/Shore	-	1-1.8L	-	-	1.8L	-	1.45L	Suppression only.
- Soldier	1.8L	-	-	-	-	-	1.45-2.1L NOT NSW, Tas	Spray young rosettes.
- Spear	695mL	-	-	-	1.8L	-	1.45-2.1L	Spray young rosettes.
- Star	-	-	-	-	-	-	2.1-4.2L SA ONLY	Use higher rate as flower stalk appears.
- Variegated	-	695mL-2.2L	-	1.1L	1.8L	-	1.45-2.15L	Spray at rosette stage.
Thornapple	-	1-1.45L	-	-	-	-	2.1-3.2L NOT SA	Spray seedlings only.
Turnip weed/Rapistrum	-	695mL-1.45L	-	695mL	-	1L	695mL-1.45L	
Ward's weed	-	-	1.45L	-	-	-	-	
Wild cabbage	1.8L	-	-	-	-	-	-	Spray multiple leaves.
Wild poppy	695mL	-	-	-	-	-	1.45-2.15L	Spray rosettes.
Wild radish	1.8L	2.2L	1.8L	1.1L	1.8L	1L	1-1.45L	Spray up to young rosette stage.
Wild turnip	295-695mL	695mL-1.45L	415mL	-	1.8L	885mL	695mL-1.45L	Spray 2-4 leaf up to rosette stage.
Vetches/Tares	1.8L	-	1.45L	-	-	-	-	Spray at multiple leaf stage.

GENERAL INSTRUCTIONS

Cobber 475 is a water soluble liquid product with non-selective herbicidal activity against broadleaf weeds. Cobber 475 will control emerged weeds only, and provides no residual control although certain plant back periods should be observed. Cobber 475 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 occurring up to 6 hours after application may reduce effectiveness.

CROP ESTABLISHMENT

Cobber Herbicide is recommended as a herbicide additive to glyphosate for control of emerged weeds prior to crop establishment. When Cobber Herbicide is applied prior to crop establishment, certain Plant Back Periods should be observed to ensure that the herbicide has degraded sufficiently to allow safe sowing of the intended crop. This process is largely influenced by moisture, temperature and certain soil characteristics and may be delayed particularly when conditions are cold and dry. Refer to the Plant Back Period table for specific information. In seasons of heavy weed growth, or where the following conditions apply, it may be necessary to further delay sowing until a suitable seedbed can be formed. Conditions that can delay crop germination and seedling development include:

- Heavy green or decaying weed growth incorporated into the soil;
- Soil compaction or crusting;
- Cold and wet soils;
- Deep seeding;
- Prior use of residual or pre-emergent herbicides.

To minimise these effects it is suggested that:

- Weed bulk be reduced by grazing and cultivating to leave trash on the surface to dry out;
- A friable seedbed be produced by cultivation, where necessary;
- The use of pre-emergent herbicides to be avoided if they might contribute to reduced germination;
- A correct seeding depth be used. The preferred alternative is to spray early to control any weeds in their less advanced stages and ensure the seedbed is in a suitable condition for early sowing when soil temperatures are not excessively cold.

PLANT BACK DAYS FOR COBBER 475 HERBICIDE

CROP	RATES		
	Up to 695mL/ha	695mL-1.45L/ha	1.45-2.15L/ha
Balansa clover	7	7	10
Barley [%]	1	1	3
Chickpeas [#]	7	14	21
Cotton	10	14	21
Faba beans	7	7	10
Field peas	7	14	14
Lentils	7	7	10
Linseed	7	7	14
Lucerne	7	7	10
Lupins [*]	7	14	21
Medics	7	7	10
Narbon beans	7	7	10
Navy bean	10	10	14
Oats	3	3	7
Perennial ryegrass	7	7	10
Persian clover	7	7	10
Phalaris	7	7	10
Canola/Rapeseed [#]	14	21	28
Rice	7	7	14
Safflower [#]	7	14	21
Sorghum [@]	3	7	10
Soybean	14	14	21
Sub. clover	7	7	10
Sunflower [@]	7	10	14
Triticale [%]	1	3	7
Vetch	7	7	10
Wheat [%]	1	3	7
White clover	7	7	10

IMPORTANT: WHEN APPLIED TO DRY SOILS AT LEAST 15mm (1/2 inch) OF RAIN MUST FALL PRIOR TO THE COMMENCEMENT OF THE PLANT BACK PERIOD.

NOTES:

[%] In Queensland, no rainfall is required to fall prior to commencement of Plant Back Period for Wheat, Barley and Triticale.

[#] In Queensland, planting of Canola/Rapeseed, Chickpeas and Safflower must be delayed for at least 14 days following rainfall of at least 15mm.

[@] In Central Queensland, when using 1L/ha or less of Cobber 475 the plant back period for sorghum and sunflower is 1 day irrespective of rainfall.

^{*} In WA the plant back period for lupins at all rates is 28 days.

SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT

For aerial application it is recommended where possible for this product to be applied by an aerial applicator business that holds current accreditation for the Aerial Improvement Management System (AIMS), issued by the Aerial Application Association of Australia Ltd.

Checklist:

- Have you cleaned/decontaminated your boom sprayer?
- Have you contacted your neighbour prior to spraying?
- Is your sprayer set-up correctly for the particular application?
- Check
 - boom calibration
 - at nozzle - nozzle choice
 - low drift/what spray quality
 - very coarse or larger spray quality?
 - boom height - speed of intended application
 - water volume
- You must check, determine and record the weather conditions immediately prior to, and immediately after the spray application is made.
- Record
 - Temperatures
 - Relative Humidity
 - Delta T
 - Wind speed
 - Is there a temperature inversion?
- Night Spraying - Extra care is required to ensure that inversion conditions are not present. Use smoke generator to determine wind direction and presence of inversion conditions.

For further information refer to nufarm.com.au/spraywise



spraywisedecisions.com.au is an online weather forecasting program and is recommended for use when planning your pesticide application



When spraying in or near a cotton area, check online at cottonmap.com.au for the proximity of cotton fields

Instructions for Mandatory VERY COARSE or Larger Droplet Size Categories

Important Information

These instructions inform users of this chemical product how to lawfully comply with the requirement of a VERY COARSE or larger spray droplet size category for spray application.

For ground application, spray droplet size categories are defined in the ASAE S572 Standard (including all newer versions such as S572.1) or the BCPC guideline or the ISO 25358 Standard. Nozzle manufacturers may refer to one or both to identify droplet size categories, but for a nozzle to comply with this requirement, the manufacturer must refer to at least one.

In the following instructions, Section 1 is for ground application and Sections 2 and 3 are for aerial application.

Complying with the label requirement to use a specific droplet size category means using the correct nozzle that will deliver that droplet size category under the spray operation conditions being used. Only the following specific methods can be used for choosing the correct nozzle. Use one of the methods specified in these instructions to select a correct nozzle to deliver a VERY COARSE or larger droplet size category.

SECTION 1 Instructions for Ground Application – for VERY COARSE droplet size or larger categories

Mandatory Instructions for Ground Applications

USE ONLY nozzles that the nozzles' manufacturer has rated to deliver a VERY COARSE or larger droplet size category as referenced to ASAE S572 Standard (including all newer versions such as S572.1) or BCPC or ISO 25358. Choose a nozzle specified to provide the droplet size category required in the label Spray Drift Restraints.

DO NOT use a higher spray system pressure than the maximum the manufacturer specifies for the selected nozzle to deliver the droplet size category required in the label Spray Drift Restraint.

SECTION 2 Instructions for Fixed-Wing Aerial Application – for VERY COARSE droplet size or larger categories

Instructions in this section apply to fixed-wing aerial application of products for which the label Spray Drift Restraint requires VERY COARSE spray droplet category.

Nozzle choices must be made using Option 1 or 2 below.

Mandatory Instructions for Fixed-Wing Aerial Applications**Option 1**

For up to a maximum aircraft speed of 120 knots and a VERY COARSE droplet size category, USE ONLY narrow angle flat fan nozzles with spray angle less than or equal to 25, orifice size 20 or greater and oriented straight back to the flight direction. USE ONLY a spray system pressure greater than or equal to 4 bar.

Mandatory Instructions for Fixed-Wing Aerial Applications (continued)**Option 2**

USE ONLY nozzles rated by the APVMA Approved AAAA Nozzle Calculator or the USDA-ARS Aerial Spray Nozzle Models as VERY COARSE to comply with a product label's requirement for a VERY COARSE spray droplet size category. When using the AAAA Nozzle Calculator or the USDA-ARS Aerial Spray Nozzle Models, aerial applicators must also follow the additional instructions below in (a), (b) and (c).

(a) Aerial applicators must only use the droplet size category given in the nozzle calculator at the $D_{V(0.1)}$ position to identify a nozzle to comply with the required spray droplet category. The categories shown at the $D_{V(0.5)}$ and the $D_{V(0.9)}$ positions in the calculator must not be used for making a nozzle selection.

(b) Aerial applicators must not apply at airspeeds greater than that speed used to select the nozzle. A nozzle identified as VERY COARSE can also be used at slower airspeeds provided that the nozzle angle and system pressure are kept the same.

(c) When a particular pesticide product is chosen within the nozzle calculator as one of the conditions set to select a nozzle, then aerial applicators must use that specific pesticide product with that nozzle..

Note – contact the Aerial Application Association of Australia (<https://aaaa.org.au/>) for information on how to obtain access to the APVMA Approved AAAA Nozzle Calculator; the USDA-ARS Aerial Spray Nozzle Models can be downloaded from their website (<https://www.ars.usda.gov/plains-area/college-station-tx/southern-plains-agricultural-research-center/aerial-application-technology-research/docs/a-models/>).

SECTION 3 Instructions for Helicopter Aerial Application – for VERY COARSE droplet size or larger categories

Instructions in this section apply to helicopter application of products where the label Spray Drift Restraint requires a VERY COARSE or larger spray droplet category.

Nozzle choices must be made using Option 1 or 2 below.

Mandatory Instructions for Helicopter Aerial Application**Option 1**

For helicopter applications requiring a VERY COARSE spray droplet size category, USE ONLY nozzles selected with the methods previously specified for fixed-wing aircraft in Section 2 (APVMA Approved AAAA Nozzle Calculator or USDA-ARS Aerial Spray Nozzle Models).

Mandatory Instructions for Helicopter Aerial Application (continued)**Option 2**

When using Accu-Flo nozzles (Bishop Equipment Mfg Inc), USE ONLY nozzles rated according to the manufacturer's instructions to select the correct nozzle to apply a VERY COARSE or an EXTREMELY COARSE droplet size category to satisfy the label requirement for one of those specific droplet size categories.

APPLICATION**Boom Equipment**

Application of Cobber 475/glyphosate mixtures in spray volumes of 25-100L/ha is recommended. When Lusta®, Glean®, Ally* or Associate® are included in the mixture a minimum spray volume of 30L/ha is recommended. When Simazine is included in the mixture a minimum spray volume of 100L/ha is recommended.

Aerial Equipment

Application of Cobber 475/glyphosate mixtures using either Micronair or boom equipment should occur in a minimum spray volume of 15L/ha.

Swath width should be 15-17m.

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 30L/ha.

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 AND USAGE

Spray solutions of Cobber 475 and glyphosate should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fibre glass, plastic-lined containers. **DO NOT** mix, store or apply spray solutions in galvanised steel or unlined steel (except stainless steel) containers or spray tanks. Cobber 475/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. 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 Spraymate Tank & Equipment Cleaner. If using a Sulfonylurea herbicides (Lusta®, Glean* or Ally* or Associate®), follow decontamination procedures detailed on those product labels.

COMPATIBILITY

Cobber 475 is compatible in tank mixes with Gladiator® Maximus, Gladiator®, Nufarm Glyphosate CT, Credit® Broadhectare Herbicide plus Bonus®, Roundup* PowerMAX, Roundup* CT, weedmaster® DUO, Kamba® 500, Lusta®, Glean*, Ally*, Associate®, Crop Care Simazine Flowable, Simagranz, Atradex® WG, Atragranz, Crop Care Atrazine Flowable, Revolver®, Crop Care Chlorpyrifos 300, Saboteur, LeMat*, Imidan* and Tribunex*.

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 LI 700® in accordance with label directions on the glyphosate product or add Bonus® with Credit®. Use LI 700® with Glyphosate CT if insecticides will be included in the tank mixture or if faster brownout of weeds is required. **DO NOT** mix with spraying oils, or any other materials or agricultural chemicals except as directed on this label. **DO NOT** use LI 700® or Bonus® if sulfonylurea herbicides (Lusta®, Glean* Ally*, Associate®) are included in the spray mixture.

TANK MIXTURES

The Cobber 475 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 Cobber 475 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.

Kamba®) 500 - For improved control of Sowthistle. Observe any regional use restrictions.

Lusta®) or Glean* - Will provide control for a wide range of broadleaf weeds and grasses.

Ally* or Associate®) - For improved knockdown control of Yellow burrweed (Amsinckia), Volunteer chickpeas, Chickweed, Common sowthistle, Cutleaf mignonette, Dead nettle, Faba beans, Mallee catchfly, Soursob, Stagger weed, Wild garlic. Ally* or Associate® do not provide residual in-crop weed control.

INSECTICIDES

Chlorpyrifos 300, Saboteur®, Imidan* and Le Mat* can be introduced into the tank mix for specific control to prevent insect damage to emerging crop.

MIXING INSTRUCTION

Cobber 475 Herbicide 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 either Bonus® or LI 700 is recommended at either 100mL or 300mL/100L, add to tank through top mesh screen.
3. Add recommended herbicide additive/insecticide to the spray tank and mix thoroughly.
4. Add Cobber 475 and mix thoroughly.
5. Top up tank to 95% of desired capacity then add the glyphosate product and the remaining water.
6. When Nufarm Activator® or Shirwet® 600 surfactants are 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.

RESISTANT WEEDS WARNING

GROUP	HERBICIDE
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Cobber 475 Herbicide ("Cobber 475") is a member of the Phenoxy group of herbicides. Cobber 475 has the Disruptors of plant cell growth mode of action. For weed resistance management Cobber 475 is a Group I herbicide. Some naturally occurring weed biotypes resistant to Cobber 475 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 Cobber 475 or other Group I herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Nufarm Australia Limited accepts no liability for any losses that may result from the failure of Cobber 475 to control resistant weeds.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT spray cereals if lucerne is present.

DO NOT spray crops or weeds outside the stages indicated in "Critical Comments" as damage, loss of yield or inadequate weed control may result.

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.

Avoid spray drift onto susceptible crops such as cotton, tobacco, tomatoes, vines, lupins, fruit trees and ornamentals

PROTECTION OF LIVESTOCK

Low hazard to bees. May be applied at any time as recommended in the Directions for Use.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

STORAGE AND DISPOSAL

Store in the closed, original container in a dry, cool well-ventilated area out of direct sunlight. Protect from frost.

Non-refillable containers

Triple-rinse containers before disposal. Add rinsings to spray tank. **DO NOT** dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. **DO NOT** burn empty containers or product.

Refillable containers

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage

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 131126.

ADDITIONAL STATEMENTS (WHS REGULATIONS 2011)

Causes serious eye damage. May cause an allergic skin reaction. DO NOT eat, drink or smoke when using this product. Wear protective gloves, clothing, eye and face protection. Avoid breathing vapours. Contaminated work clothing should not be allowed out of the workplace. **IF SWALLOWED:** Rinse mouth. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice / attention.

SAFETY DATA SHEET

For further information refer to the Safety Data Sheet (SDS) which can be obtained from your supplier or from the Nufarm website – www.nufarm.com.au

In case of emergency: Phone 1800 033 498 Ask for shift supervisor. Toll free 24 hours.

CONDITIONS OF SALE

"Any provisions or rights under the Competition and Consumer Act 2010 or relevant state legislation which cannot be excluded by those statutes or by law are not intended to be excluded by these conditions of sale. Subject to the foregoing, all warranties, conditions, rights and remedies, expressed or implied under common law, statute or otherwise, in relation to the sale, supply, use or application of this product, are excluded. Nufarm Australia Limited and/or its affiliates ("Nufarm") shall not accept any liability whatsoever (including consequential loss), or howsoever arising (including negligence) for any damage, injury or death connected with the sale, supply, use or application of this product except for liability which cannot be excluded by statute."

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APVMA Approval No.: 61565/117725