

Product Name: Nufarm NuCol Herbicide
APVMA Approval No: 81242 / 138387



Label Name:	Nufarm NuCol Herbicide
-------------	------------------------

Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
------------------	-------------------------------------------------------------------------------------------

Constituent Statements:	ACTIVE CONSITUENT: 500 g/L 2,4-D present as the choline salt
-------------------------	--------------------------------------------------------------

Mode of Action:	GROUP 4 HERBICIDE
-----------------	-------------------

Statement of Claims:	For the control of broadleaved weeds in wheat crops and in fallow situations as per 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.
----------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Net Contents:	15 - 1000 L
---------------	-------------

Restrains:	Please see attachment
------------	-----------------------

Directions for Use:	Please see attachment.
---------------------	------------------------

Other Limitations:	
--------------------	--

Withholding Periods:	PASTURE, CEREAL CROPS: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION. CROP HARVEST WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.
----------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------

Trade Advice:	
---------------	--

General Instructions:	Please see attachment
-----------------------	-----------------------

Resistance Warning:	<p>RESISTANT WEEDS WARNING GROUP 4 HERBICIDE</p> <p>Nufarm NuCol® Herbicide is a member of the Phenoxy group of herbicides. Nufarm NuCol® Herbicide has the disruptors of plant cell growth mode of action. For weed resistance management Nufarm NuCol® Herbicide is a Group 4 herbicide. Some naturally occurring weed biotypes resistant to Nufarm NuCol® Herbicide and other Group 4 herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Nufarm NuCol® Herbicide or other Group 4 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 Nufarm NuCol® Herbicide to control resistant weeds.</p>
---------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Precautions:	<p>Re-Entry Period DO NOT enter treated areas until the spray has dried for low exposure activities (such as hand weeding) for the days indicated below, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use: Crop Earliest day for re-entry for low exposure activities Wheat 2 days Oats 0 days Triticale, cereal rye 2 days</p> <p>DO NOT enter treated areas until the spray has dried for medium exposure activities (such as scouting) for days indicated below, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use: Crop Earliest day for re-entry for medium exposure activities Barley 27 days Wheat 27 days Oats 24 days Triticale, cereal rye 27 days</p>
--------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Protections:	<p>PROTECTION OF CROPS, NATIVE AND NON-TARGET PLANTS 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</p>
--------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>drift and vapour movement onto susceptible crops such as cotton, tobacco, tomatoes, vines, lupins, fruit trees and ornamentals.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.</p>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Storage and Disposal:	<p>Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight.</p> <p>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.</p> <p>Refillable containers Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.</p>
-----------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Safety Directions:	<p>Harmful if swallowed. Will irritate the eyes. May irritate the skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin.</p> <p>When opening the container and preparing and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length chemical-resistant gloves and face shield or goggles.</p> <p>If applying by aerial spraying equipment, wear elbow-length chemical-resistant gloves.</p> <p>When preparing spray for boomspray equipment, wear cotton overalls, over normal clothing, buttoned to the neck and wrist, a washable hat, elbow-length chemical-resistant gloves and face shield or goggles.</p> <p>If product or spray in eyes, wash it out immediately with water.</p> <p>Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.</p>
--------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

First Aid Instructions:	<p>If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26, New Zealand 0800 764 766.</p>
-------------------------	-------------------------------------------------------------------------------------------------------------------------------------

First Aid Warnings:	
---------------------	--

Nufarm NuCol® Herbicide

GENERAL INSTRUCTIONS

Before opening, carefully read Directions for Use, Precautionary Statements, Safety Directions and First Aid Instructions.

Nufarm NuCol® Herbicide is a water soluble liquid product with non-selective herbicidal activity against broadleaf weeds. Nufarm NuCol® Herbicide will control emerged weeds only, and provides no residual control although certain plant back periods should be observed.

Nufarm NuCol® Herbicide 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.

DO NOT spray if strong winds prevail.

Application Information

In Crop Use

GROUND SPRAYER APPLICATION - Use 50 - 250 L/ha of water.

AERIAL APPLICATION - Use 40 - 90 L/ha of water.

Equipment Maintenance and Usage

Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been well washed out with hot soapy water or 1% solution of ammonia, followed by several clear water rinses or use Tank & Equipment Cleaner. If using a Sulfonylurea herbicide (a chlorsulfuron product, Glean®, Ally* or Associate®), follow decontamination procedures detailed on those product labels.

A 50 mesh primary filter and 80 mesh secondary filter(s) are recommended.

The use of in-line nozzle filters is not recommended.

Mixtures with Weedmaster DST: Spray solutions of NuCol and Weedmaster DST 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. NuCol / Weedmaster DST 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.

SURFACTANT ADDITION – CONSERVATION TILLAGE

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 Nufarm Collide 700 in accordance with label directions on the glyphosate product. Use Nufarm Collide 700 if insecticides will be included in the tank mixture or if faster brownout of weeds is required or for assistance in droplet size management to partially reduce the number of fine droplets produced from hydraulic nozzles by air and ground.

To improve performance under adverse environmental conditions or when dealing with large weeds, the addition of Liase at 2L/100L is recommended. Addition of crystalline ammonium sulphate may take a significantly longer time to dissolve.

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

TANK MIXTURES – CONSERVATION TILLAGE

A mixture of NuCol® and Weedmaster DST 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® 750 - For improved control of Sowthistle. Observe any regional use restrictions.

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

Associate® or Ally* - For improved knockdown control of Yellow burrweed (Amsinckia), Volunteer chickpeas, Chickweed, Common sowthistle, Cut-leaf 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 500EC, Dimethoate, Imidan*, Astound® Duo, alpha-cypermethrin and LeMat* can be introduced into the tank mix for specific control to prevent insect damage to emerging crops.

MIXING INSTRUCTIONS

Nufarm NuCol® Herbicide mixes readily with water. Ensure the spray tank is free of any residue of previous spray materials. Flush chemical suction equipment with fresh water between products, and between fills, when adding to the spray solution.

1. Fill the spray tank with clean water to at least 70% of the required amount and start agitation. **DO NOT** use mechanical agitators as these may cause excessive foaming when herbicides are added.
2. Where Liase is recommended, add to tank through top mesh screen.
3. Add recommended agricultural chemical product(s) and/or other additive(s) to the spray tank and mix thoroughly (mixing order water dispersible granules, then suspension concentrates, then emulsifiable concentrates, then soluble liquids).
4. Add Nufarm NuCol® Herbicide and mix thoroughly.
5. Top up tank to 95% of desired capacity.
6. Always maintain adequate agitation during application and use the tank mix promptly.

Nufarm NuCol® Herbicide

General Restraints

DO NOT exceed maximum application rate of 2.1 L/ha (1050 g ae/ha).

DO NOT apply by spraying equipment carried on the back of the user (Manually pressurised backpack sprayer).

DO NOT use open mixing/loading systems.

DO NOT apply on cotton crops.

DO NOT apply as a spot spray.

Ground boom application **MUST** be performed using closed cabs.

DO NOT apply if heavy rains or storms are forecast within 3 days or if any rain is expected within 6 hours.

DO NOT irrigate to the point of runoff for at least 3 days after application.

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

Spray Drift Restraints

DO NOT apply by vertical sprayer.

Specific definitions for terms used in this section of the label can be found at www.apvma.gov.au/spraydrift

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

DO NOT apply in a manner that may cause an unacceptable impact to **native vegetation, agricultural crops, landscaped gardens and aquaculture production**, or cause contamination of plant or livestock commodities, outside the application site from **spray drift**. The **buffer zones** in the relevant buffer zone 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 apply unless the **wind speed** is between 3 and 20 kilometres per hour at the **application site** during the time of application.

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

Boom Sprayers

DO NOT apply by a boom sprayer (except an Optical Spot Sprayer) unless the following requirements are met:

- Spray droplets are not smaller than a VERY COARSE **spray droplet size category**
- Minimum distances between the **application site** and downwind **sensitive areas** (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for boom sprayers') are observed.

Buffer Zones for Boom Sprayers

Application rate	Boom Height above target canopy	Mandatory buffer zones (distances given in metres)				
		Bystander Areas	Natural Aquatic Areas	Pollinator Areas	Vegetation Areas	Livestock Areas
Up to 1 L/ha (500 g ae/ha)	0.5 m or lower	0	10	0	20	0
	1.0 m or lower		35		50	
Up to 2.1 L/ha (1050 g ae/ha)	0.5 m or lower		30		35	
	1.0 m or lower		60		100	

Aircraft

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

- Spray droplets are no smaller than a VERY COARSE **spray droplet size category**
- For maximum release heights above the target canopy of 3 metres or 25 per cent of wingspan or 25 per cent of rotor diameter whichever is the greatest, minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for aircraft') are observed.

Buffer Zones For Aircraft

Application rate	Aircraft Type	Mandatory buffer zones (distances given in meters)				
		Bystander Areas	Natural Aquatic Areas	Pollinator Areas	Vegetation Areas	Livestock Areas
Up to 1 L/ha	Fixed Wing	0	110	0	160	0
	Helicopter		80		110	
Up to 2.1 L/ha	Fixed Wing		190		300	
	Helicopter		130		190	

DIRECTIONS FOR USE

1. CEREAL CROPS

SITUATION & CROP	WEEDS	RATE	CRITICAL COMMENTS	USAGE RESTRICTIONS
Wheat Barley Cereal rye Triticale	Refer to Weed Table	700 mL/ha - 2.1 L/ha	Lower rate (500 mL/ha) - Apply from mid-tillering (Z15/Z22 crop growth stage). Higher rates (above 500 mL/ha) - Apply from first node (Z31) to booting (Z43) crop growth stage. DO NOT spray if Lucerne is present. DO NOT apply to undersown medics. The wheat varieties Wyalkatchem and Ellison as well as the oat varieties Yallara, Brusher, and Mitika, have shown increased sensitivity (potential grain yield loss) to high use rates.	USAGE RESTRICTIONS APPLY. See Appendix 1: Risk mitigation measures for dryland cropping, pre-emergent uses.
Oats		700 mL/ha - 1.6 L/ha		
Wheat Barley Cereal rye Triticale	Flaxleaf fleabane (<i>Conyza bonariensis</i>)	2.1 L/ha	Apply up to 6 leaf rosette stage. Apply in 70 - 100 L water/ha.	
Cereals: Wheat, Barley, Oats, Triticale, Cereal rye	Volunteer canola (<i>Brassica napus</i>) including Roundup Ready* varieties	1.25 L/ha	WEED STAGE: Up to 4 leaf. CROP STAGE: 5 leaf to fully tillered.	
		1.75 L/ha (except oats) 1.6 L/ha (oats only)	WEED STAGE: Up to 6 leaf. CROP STAGE: 5 leaf to fully tillered.	

2. CONSERVATION TILLAGE

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS	USAGE RESTRICTIONS
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, Rice, Safflower, Sorghum, Soybean, Subterranean clover, Sunflower, Triticale, Vetch, Wheat, White clover	NuCol® has been designed for and recommended for use with Weedmaster® DST . Please refer to Compatibility section for recommended water rates.				
	Fumitory (white), Ball mustard, Indian hedge mustard, Common sowthistle, Turnip weed, Wild turnip, Wild radish.	All States	390 mL/ha - 1.14 L/ha plus Weedmaster DST 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. Please refer to Compatibility section for recommended water 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 - 8 cm before spraying and use higher rate. Always add either a non-ionic surfactant (eg. Activator®) or Nufarm Collide 700 in accordance with label directions on the mixture product. Use Nufarm Collide 700 with the mixture product if insecticides will be included in the tank mixture or if faster	USAGE RESTRICTIONS APPLY. See Appendix 1: Risk mitigation measures for dryland cropping, pre-emergent uses
	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	545 - 720 mL/ha plus Weedmaster DST 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, Subclover		720 mL/ha - 1.045 L/ha plus Weedmaster DST at recommended label rates			
(Continued)	Amaranth, Apple of Peru, Mexican poppy, Annual ground cherry, Bladder ketmia, Fat hen, Melons, Native Rosella, Noogoora burr,	NSW, ACT, Qld only	1.045 - 1.6 L/ha plus Weedmaster DST at recommended label rates		

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS	USAGE RESTRICTIONS
	Potato weed, Cow vine, Yellow vine			brown out of weeds is required.	
	Volunteer canola (<i>Brassica napus</i>) including Roundup Ready* varieties	All States	1.23 L/ha or 1.68 L/ha plus Weedmaster DST at recommended rates	Use lower rate of NuCol® up to the 4 leaf weed stage. Use higher rate of NuCol® up to the 6 leaf weed stage. For adequate coverage use a minimum application water volume of 70L/ha. In situations where the PRAMOG model recommends no use of glyphosate in the year following Roundup Ready canola, alternative mode of action herbicides should be selected.	
	Flaxleaf fleabane (<i>Conyza bonariensis</i>)		910 mL/ha - 1.54 L/ha plus a minimum of 1.4 L/ha Weedmaster DST	Apply to cotyledon to 12 leaf rosette prior to stem elongation. Use the low rate in Autumn/Winter. Use the highest rate for Spring/Summer applications. For adequate coverage use a minimum application water volume of 70L/ha. A sequential application of Nufarm Paraquat 250 (refer below) is also recommended for situations where incomplete control is achieved with the first application, or where there are spray misses/shadowing, failures due to resistance, or under periods of temperature and/or moisture stress. In these situations, the sequential application is to be applied 7 - 14 days after the first application.	

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS	USAGE RESTRICTIONS
			As above followed by 1.6 – 2 L/ha Nufarm Paraquat 250	Apply at stem elongation to flowering plants. Apply the sequential application 7 - 14 days after the first application. Use the low rate in Autumn/Winter. Use the highest rate for Spring/Summer applications. For adequate coverage use a minimum application water volume of 70L/ha. The sequential application of Nufarm Paraquat 250 is recommended for situations where incomplete control is achieved with the first application, or where there are spray misses/shadowing, failures due to resistance or under periods of temperature and/or moisture stress. In these situations, the sequential application is to be applied 7 - 14 days after the first application.	
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		660 mL/ha - 1.96 L/ha	Apply to actively growing young weeds before sowing. Observe plant back periods given in the table on this leaflet.	USAGE RESTRICTIONS APPLY FOR PASTURES. See Appendix 2: Timing restrictions for pastures.
	Clover, Sorrel		1.38 L/ha plus 186 – 265 mL/ha Kamba® 750	Apply to actively growing plants in Autumn. DO NOT sow pasture seed for at least 30 days after application.	
Fallow, Stubble Spray prior to direct drilling or sowing - Winter cereals, Grain legumes (peanuts - Qld only) and Canola	Refer Weed Table		280 mL/ha – 2.1 L/ha	Observe plant back periods given in the table on this leaflet. Can be mixed with Glean*, Nufarm Paraquat 250 or Revolver® /Spray*Seed* where grasses are present. Select appropriate rate from the Weed Table. For Skeleton weed, spraying should only be done 6- 8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.	USAGE RESTRICTIONS APPLY. See Appendix 1: Risk mitigation measures for dryland cropping, pre-emergent uses and Appendix 3: Timing restrictions for peanuts.
			1.26 L/ha	Apply at this rate up to 4 leaf canola stage.	

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS	USAGE RESTRICTIONS
	Volunteer canola (<i>Brassica napus</i>) including Roundup Ready* varieties		1.75 L/ha	Apply at this rate up to 6 leaf canola stage.	

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.

WEEDS TABLE

NOTE: Listing of weeds and rates where weeds are to be sprayed in wheat and barley.

Weeds	Application Rate	Critical Comments
Amaranthus spp.	700 mL/ha - 1.4 L/ha	Spray young plants.
Amsinckia	1.4 L/ha	
Apple of Peru	700 mL/ha - 1.4 L/ha	Spray young plants. Susceptible when young.
Bathurst burr	1 - 2.1 L/ha	Spray seedlings only.
Bellvine	2.1 L/ha	Spray before seeding. Advanced stages susceptible.
Bindweed	1.4 L/ha	
Blackberry nightshade	700 mL/ha - 1.4 L/ha	
Black-eyed Susan	2.1 L/ha	Apply at pre-flowering, preferably young stages.
Blue snakeweed	2.1 L/ha	Spray seedlings at young stages only.
California burr	1 - 1.4 L/ha	Spray seedlings only.
Cape tulip	800 mL/ha - 1.6 L/ha	Low rate for cormils only
Capeweed	1.4 - 2.1 L/ha	Spray seedlings to rosette stage
Caltrop	1 - 2.1 L/ha	Moderately susceptible.
Charlock	700 mL/ha - 1.75 L/ha	Spray at rosette stage.
Clover	1.55 L/ha	
Cobbler's pegs	2.1 L/ha	Apply at pre-flowering, preferably young stages.
Common ice plant	1.4 L/ha	
Common sida	2.1 L/ha	Spray seedling or young stages only.
Common sowthistle	1.75 - 2.1 L/ha	Apply at pre-flowering, preferably young stages.
Docks	1.4 - 1.75 L/ha	Spray at multiple leaf stage. Effective only on seedlings.
Doveweed	1.4 L/ha	
Fat hen	700 mL/ha - 2.1 L/ha	Spray pre-flowering.
Flannel weed	2.1 L/ha	Spray seedling or young stages only.
Flat weed	1.4 L/ha	
Fumitory - red	2.1 L/ha	
Fumitory - white	700 mL/ha - 1 L/ha	Spray at multiple leaf stage.
Heliotrope	1.4 L/ha	
Hexham scent or Melilotus	1.4 - 2.1 L/ha	Spray multiple leaf stage before seeding
Hoary cress	1.1 - 2.1 L/ha	Spray rosettes and pre-flowering.
Hogweed/Wireweed	1.75 L/ha	Spray at multiple leaf stage (Vic). Spray at seedling and young plant stage (Qld).
Horehound	1.75 - 2.1 L/ha	Spray seedlings. Suppression only. Good coverage required
Indian hedge mustard	1.75 - 2.1 L/ha	
Khaki weed	1.75 - 2.1 L/ha	Spray seedlings only.
Lincoln weed	2.1 L/ha	Spray early rosettes.
London rocket	1.4 L/ha	
Lupins	1 - 2.1 L/ha	
Matricaria	1 L/ha	
Melons - Camel (Afghan), paddy	700 mL/ha - 2.1 L/ha	Add 1% paraffin oil (471 g/L)
Mexican poppy	1.75 L/ha	Spray seedlings - plants become more resistant with age.
Mintweed	1.1 - 1.4 L/ha	Spray seedlings - resistant in later stages.
Morning glory	2.1 L/ha	Spray at seedling to flowering stage.
Mustards	700 mL/ha - 1.75 L/ha	Spray at 2 - 4 leaf up to rosette stage.
Needle burr	2.1 L/ha	Apply at pre-flowering, preferably young stages.
New Zealand spinach	1.4 - 2.1 L/ha	
Noogoora burr	1 - 1.4 L/ha	Spray seedlings only.
Paterson's curse	1.4 - 2.1 L/ha	Spray rosettes or before plants have 10 leaves. Later stages harder to kill.
Pinkburr (Pink flowered burr)	2.1 L/ha	Spray seedling or young stages only.
Potato weed	700 mL/ha - 1.4 L/ha	
Radish	1.4 L/ha	
Ragwort	1.4 - 2.1 L/ha	Spray up to early rosette stage

Weeds	Application Rate	Critical Comments
Rapistrum	1.4 L/ha	
Rough poppy	1.4 L/ha	
Safflower	700 mL/ha - 1.4 L/ha	
Shepherd's purse	1.4 - 2.1 L/ha	Spray young rosettes.
Siratro (Purple bean)	2.1 L/ha	Spray seedling or young stages only.
Skeleton weed	1.4 - 2.1 L/ha	Spray rosettes before aerial growth commences.
Sorrel	1.75 – 2.1 L/ha	Only moderately susceptible.
Speedwell - Ivy leaf	1.4 L/ha	
Spinyhead sida	2.1 L/ha	Spray seeding or young stages only
Starburr	2.1 L/ha	Spray before seeding, advanced stages susceptible.
Spiny emex	2.1 L/ha	Only young plants are susceptible.
Star of Bethlehem (Cupid's flower)	2.1 L/ha	Spray before seeding, advanced stages susceptible
Stinkwort	1 - 1.75 L/ha	
Storkbill/Erodium	1.75 L/ha	Spray seedlings to young rosettes.
Sunflower (seedlings)	700 mL/ha - 1.75 L/ha	
Thistles: - Annual	1.4 L/ha	
- Saffron	700 mL/ha – 2.1 L/ha	Low rate only sufficient to control weeds in crops at rosette stage when sprayed early.
- Slender/Shore	1 – 2.1 L/ha	Suppression only.
- Soldier	2.1 L/ha	Spray young rosette.
- Spear	700 mL/ha – 2.1 L/ha	Spray young rosettes.
- Variegated	700 mL/ha – 2.1 L/ha	Spray at rosette stage.
Thornapple	1 – 2.1 L/ha	Spray seedlings only.
Tridax (Tridax daisy)	2.1 L/ha	Spray seedling or young stages only.
Turnip weed/Rapistrum	700 mL/ha – 1.4 L/ha	
Vetches/Tares	1.4 - 1.75 L/ha	Spray at multiple stage.
Ward's weed	1.4 L/ha	
Wild cabbage	1.75 L/ha	Spray multiple leaves.
Wild poppy	700 mL/ha – 2.1 L/ha	Spray rosettes.
Wild radish	1 – 2.1 L/ha	Spray up to young rosette stage.
Wild turnip	700 mL/ha - 1.75 L/ha	Spray 2 - 4 leaf up to rosette stage.

Plant Back Periods (days) for Nufarm NuCol® Herbicide

CROP	RATES		
	Up to 700 mL/ha	700 mL/ha - 1.4 L/ha	1.4 L - 2.1 L/ha
Balansa clover	7	7	10
Barley%	1	1	3
Canola#	14	21	28
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 beans	10	10	14
Oats	3	3	7
Perennial ryegrass	7	7	10
Persian clover	7	7	10
Phalaris	7	7	10
Rice	7	7	14
Safflower#	7	14	21
Sorghum@	3	7	10
Soybean	14	14	21
Subclover	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, 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 Nufarm NuCol® Herbicide, 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.

TIMING AND USAGE RESTRICTION APPENDICES**Appendix 1: Risk mitigation measures for Dryland cropping, pre-emergent uses**

Situation	Risk mitigation measures
Dryland cropping, Preparatory spray	Only apply in no-till farming systems (Tasmania, South Australia)
Winter cereals, pre-emergence uses	Only apply in no-till farming systems (Tasmania, South Australia, Western Australia)
Summer cereals, pre-emergent uses	Only apply in no-till farming systems (Tasmania, South Australia)

Appendix 2: Application and timing restrictions for application to pastures

DO NOT apply above maximum rate (L/ha) below

Pastures - prior to sowing, conservation tillage	State	Summer	Autumn	Winter	Spring
	Queensland & NT	2.1	2.1	2.1	2.1
	New South Wales & ACT	2.1	2.1	2.1	2.1
	Victoria	0.7	2.1	2.1	2.1
	Tasmania	0.7	1.6	2.1	2.1
	South Australia	1.4	2.1	2.1	2.1
	Western Australia	2.1	2.1	2.1	2.1

Appendix 3: Timing restrictions for spraying peanuts

Situation	Rate (L/ha)	Region	Timing Restriction - DO NOT APPLY DURING THE MONTHS
Peanuts - broadcast spraying, prior to sowing.	Up to 1.8 L/ha	Cape York	October and November
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	No timing restrictions
		Burdekin	October
		Mackay/Whitsunday	September to December
		Mary/Burnett	October to November
		SE Queensland	August to May
	Up to 2.1 L/ha	Cape York	October and November
		Northern Gulf	October and November
		Northern Territory	October and November
		Wet Tropics	No timing restrictions
		Burdekin	October
		Mackay/Whitsunday	August to December
Mary/Burnett	September to November		
SE Queensland	Use not supported		