Product Name: Colex-D Herbicide
APVMA Approval No: 91625/143716

RLP APPROVED

Label Name:	Colex-D Herbicide

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

Constituent Statements:	456 g/L 2,4-D PRESENT AS THE CHOLINE SALT

Mode of Action:	GROUP 4 HERBICIDE

Statement of Claims:	A soluble concentrate containing drift reduction technology with near zero volatility for the control of broadleaf weeds in fallow, winter cereals, grass pastures and non-agricultural areas 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:	1 L - 1000 L

Restraints:	This section contains file attachment.

Directions for Use:	This section contains file attachment.

Other Limitations:	

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

Trade Advice:	

General Instructions:	Colex-D® is a soluble concentrate (SL) containing in-built drift reduction technology with near zero volatility. Before opening, carefully read RESTRAINTS including the SPRAY DRIFT RESTRAINTS, DIRECTIONS FOR USE, PROTECTION OF WILDLIFE, FISH, CRUSTACEAN AND ENVIRONMENT, SAFETY DIRECTIONS and FIRST AID instructions. To benefit from the in-built drift reduction technology, Colex-D® may only be tank mixed with products that have been confirmed not to adversely affect its drift reducing properties and when the applicable spray drift restraints are observed. See APPLICATIONS WITH IN-BUILT DRIFT REDUCTION section in SPRAY DRIFT RESTRAINTS and COMPATIBILITY section in GENERAL INSTRUCTIONS. BOOM SPRAYING: Use 70 – 100 L water/ha. HIGH VOLUME SPRAYING: Use 1,500 – 2,500 L water/ha. MIXING Ensure the spray tank has been cleaned or decontaminated. 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 ½ the required volume and start agitation. DO NOT use mechanical agitators as these may cause excessive foaming when herbicides are added. 2. Add water dispersible granules first (e.g. Paradigm® Arylex® active). Agitate until these are uniformly dispersed. Fill the spray tank to 90% of the required volume. 3. Add soluble concentrates (including Colex-D®) and finally emulsifiable concentrates. Allow to mix thoroughly for several minutes. Observe any mixing sequence instructions on partner product labels. Maintain adequate agitation during application and use the tank mix promptly. Mixing Instructions for glyphosate + Colex-D® + other tank-mix partners: Step 1: Fill the spray tank to 1/2 full with clean water, start and maintain agitation. Step 2: Where Redox Ammonium Sulphate is used, wash crystalline form at 0.8% w/v (800 g/100 L spray solution) through a top mesh screen into the tank OR add Nufarm Liase Liquid at 2 % v/v (2 L/100 L spray solution) and mix thoroughly for several minutes. Step 3: Add glyphosate and allow mixing thoroughly for several minutes. Step 4: For other tank-mix partners: Add water dispersible granules (e.g., Paradigm® Arylex® active), then add soluble concentrates (including Colex-D®). Step 5: Add emulsifiable concentrates (e.g., Garlon® 600), and allow to mix thoroughly for several minutes. Step 6: Add remaining water to desired final fill level. Removing hose from tank immediately after the filling will prevent back siphoning into water source. Always maintain adequate agitation during application and use the tank load promptly. RAINFASTNESS Colex-D is rainfast four hours after application. 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. Follow decontamination procedure detailed on any tank mix partner product label. COMPATIBILITY Ensure thorough agitation occurs when tank mixing products with Colex-D®. APPLICATIONS WITH IN-BUILT DRIFT REDUCTION To benefit from the in-built drift reduction technology, Colex-D® may only be tank mixed with products listed in this section of the label, i.e. those which have been confirmed not to adversely affect its drift reducing properties, and when the applicable spray drift restraints are observed (see also APPLICATIONS WITH IN-BUILT DRIFT REDUCTION section in SPRAY DRIFT RESTRAINTS). Glyphosate formulations allowed for applications with in-built drift reduction: Genfarm Panzer 450, Gladiator®1 CT, Kelpie®1 Rico 450®1 Gly, Nufarm Crucial®1 Advanced Technology, Raze®1, Titan Glyphosate 450 Other herbicides allowed for applications with in-built drift reduction: Garlon® 600, Lontrel® Advanced, Nufarm Associate, Paradigm® Arylex® active, Starane® Advanced, Terrad'or®1, Trezac® Arylex® active. Do not apply colex-D with Paradigm Arylex® active in oats. Ammonium sulphate products allowed for applications with in-built drift reduction: Nufarm Liase®1 Liquid, Redox Ammonium Sulphate (granules), Rutec Liquid Assist Please consult colexdcalculator.coreva.com.au for the most up-to-date list of tank mix partners compatible with Colex-D or contact your Corteva Agriscience representative for the most up-to-date compatibility information. CONVENTIONAL APPLICATIONS (WITHOUT IN-BUILT DRIFT REDUCTION) Please consult colexdcalculator.coreva.com.au for the most up-to-date list of tank mix partners compatible with Colex-D or contact your Corteva Agriscience representative for the most up-to-date compatibility information. TM ® Trademarks of Corteva Agriscience and its affiliated companies. © 2021 Corteva. ®1 Trademarks of other companies

Resistance Warning:	Colex-D® Herbicide is a member of the disruptors of plant cell growth (auxin mimics) group of herbicides. Colex-D® has the disruptors of plant cell growth mode of action. For weed resistance management Colex-D® is a Group 4 herbicide. Some naturally occurring weed biotypes resistant to Colex-D® 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 Colex-D® or other Group 4 herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Corteva Agriscience Australia Pty Ltd accepts no liability for any losses that may result from the failure of Colex-D® to control resistant weeds.

Precautions:	RE-ENTRY PERIOD Occupational users: If re-entering treated areas before the spray has dried, workers should wear overalls, elbow-length gloves and water-resistant footwear. General public: DO NOT allow entry into treated areas until the spray has dried.

Protections:	PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

Storage and Disposal:	Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. Disposable containers Do not re-use container. 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. drumMUSTER recyclable 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. This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate by adding it to the spray tank. Do not dispose of undiluted chemicals on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced, but may be taken separately. Sealed returnable container Empty contents fully into application equipment. Close all valves and return to the point of supply for refill or storage. Unsealed returnable container Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Close all valves and arrange for collection under the relevant return program.

Safety Directions:	Harmful if swallowed. Will irritate the eyes, may irritate the skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin.When using together with other products, consult their label safety directions. When opening the container and preparing spray or using undiluted concentrate, wear protective waterproof clothing, elbow-length chemical resistant gloves, impervious footwear and goggles and half face piece respirator with organic vapour/gas cartridge or canister or full facepiece respirator. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length chemical resistant gloves. In addition, if applying by hand wear half facepiece respirator with organic vapour/gas cartridge r canister. If product in eyes, wash it out immediately with 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, goggles, respirator, if rubber wash with detergent and warm water, and contaminated clothing.

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

First Aid Warnings:	

RESTRAINTS
DO NOT apply if heavy rains or storms are forecast within three (3) days.
DO NOT irrigate to the point of field runoff for at least three (3) days after application.
DO NOT apply if crop or weeds are stressed due to dry or excessively moist conditions.
DO NOT exceed maximum application rate of 7.26 L/ha for boom sprayers and 12.32 L/100 L water for optical spot spray technologies.
DO NOT exceed the maximum daily application rate by backpack spraying of 8.75 L/day.
DO NOT apply by a vertical sprayer.
DO NOT apply by aircraft.
Ground boom application MUST be performed using closed cabs.
Additional USAGE restrictions apply in some crops, states and seasons, see restrictions in Table 1 and Table 2.

Table 1. APPLICATION AND TIMING RESTRICTIONS FOR APPLICATION TO PASTURES

DO NOT apply above maximum rate (L/ha) below OR label rate, whichever is LOWEST

	State	Summer	Autumn	Winter	Spring
Pastures (prior to sowing, conservation tillage)	Queensland & NT	2.30	2.30	2.30	2.30
	New South Wales & ACT	2.30	2.30	2.30	2.30
	Victoria	0.77	2.30	2.30	2.30
	Tasmania	0.77	1.69	2.30	2.30
	South Australia	1.54	2.30	2.30	2.30
	Western Australia	2.30	2.30	2.30	2.30
Pastures (established)	State	Summer	Autumn	Winter	Spring
	Queensland & NT	2.30	2.30	2.30	2.30
	New South Wales & ACT	2.30	2.30	2.30	2.30
	Victoria	1.38	2.30	2.30	2.30
	Tasmania	0.92	2.30	2.30	2.30
	South Australia	2.00	2.30	2.30	2.30
	Western Australia	2.30	2.30	2.30	2.30

Table 2. 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)

SPRAY DRIFT RESTRAINTS
Specific definitions for terms used in this section of the label can be found at 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.

APPLICATIONS WITH IN-BUILT DRIFT REDUCTION

When utilizing reduced buffer zones from in-built drift reduction technology, observe spray drift restraints in this section of the label.

DO NOT tank mix Colex-D® with products other than those listed as compatible with the drift reduction technology. See COMPATIBILITY section in GENERAL INSTRUCTIONS.

BOOM SPRAYERS (ground application)
DO NOT apply by a boom sprayer unless the following requirements are met:

- The allowable nozzle and pressure combination from Table 3 is used.
- Minimum distances between the application site and downwind sensitive areas in Table 4 are observed.

Table 3. NOZZLES AND PRESSURES ALLOWABLE WITH COLEX-D® - APPLICATIONS WITH IN-BUILT DRIFT REDUCTION

		Maximum operating pressure								
		bar	1.4	2.1	2.8	3.5	4.1	4.8	5.5	6.2	6.9
Manufacturer	Model	psi	20	30	40	50	60	70	80	90	100
Agrotop	TDXL11003	MAX 3.8 bar (55 psi)									
	TDXL11004	MAX 4.1 bar (60 psi)									
	TDXL11006	MAX 6.2 bar (90 psi)									
	TDXL-D11002	MAX 5.5 bar (80 psi)									
	TDXL-D110025	MAX 4.8 bar (70 psi)									
	TDXL-D11003	MAX 6.2 bar (90 psi)									
	TDXL-D11004	MAX 6.2 bar (90 psi)									
	TDXL-D11006	MAX 6.9 bar (100 psi)									
AlbuZ	AVI110025	MAX 4.1 bar (60 psi)									
	AVI11003	MAX 3.5 bar (50 psi)									
	AVI11004	MAX 2.8 bar (40 psi)									
	AVI11005	MAX 2.8 bar (40 psi)									
	AVI11006	MAX 2.8 bar (40 psi)									

Hypro	ULD12004	MAX 2.8 bar (40 psi)
	ULD12005	MAX 3.5 bar (50 psi)
	ULD12006	MAX 2.8 bar (40 psi)
Lechler	ID11003	MAX 4.1 bar (60 psi)
	ID11004	MAX 4.1 bar (60 psi)
	ID11005	MAX 4.1 bar (60 psi)
TeeJet	AI11002	MAX 4.8 bar (70 psi)
	AI110025	MAX 4.8 bar (70 psi)
	AI11003	MAX 4.8 bar (70 psi)
	AI11004	MAX 4.1 bar (60 psi)
	AI11005	MAX 4.1 bar (60 psi)
	AI11006	MAX 5.5 bar (80 psi)
	AI11008	MAX 5.5 bar (80 psi)
	AITTJ11006	MAX 2.8 bar (40 psi)
	AIXR110025	MAX 1.7 bar (25 psi)
	AIXR11004	MAX 2.8 bar (40 psi)
	AIXR11005	MAX 2.8 bar (40 psi)
	AIXR11006	MAX 2.8 bar (40 psi)
	TTI11002	MAX 4.8 bar (70 psi)
	TTI110025	MAX 4.8 bar (70 psi)
	TTI11003	MAX 2.8 bar (40 psi)
	TTI11004	MAX 2.8 bar (40 psi)
	TTI11005	MAX 2.8 bar (40 psi)
	TTI11006	MAX 2.8 bar (40 psi)
Wilger	MR11006	MAX 2.8 bar (40 psi)
	MR11008	MAX 2.8 bar (40 psi)
Hardi	Injet 110025	MAX 2.8 bar (40 psi)

Table 4. BUFFER ZONES FOR BOOM SPRAYERS – APPLICATIONS WITH IN-BUILT DRIFT REDUCTION						
Application rate (L/ha)	Boom height above the target canopy	Mandatory downwind buffer zones (in metres)				
		Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 0.28	0.5 m or lower	0	0	0	0	0
	1.0 m or lower		10		10	
Up to 0.39	0.5 m or lower	0	0	0	0	0
	1.0 m or lower		10		10	
Up to 0.74	0.5 m or lower	0	0	0	0	0
	1.0 m or lower		20		20	
Up to 0.77	0.5 m or lower	0	0	0	0	0
	1.0 m or lower		25		20	
Up to 1.50	0.5 m or lower	0	5	0	5	0
	1.0 m or lower		35		35	
Up to 2.30	0.5 m or lower	0	15	0	15	0
	1.0 m or lower		45		45	
Up to 2.52	0.5 m or lower	0	20	0	20	0
	1.0 m or lower		50		45	
Up to 3.45	0.5 m or lower	0	25	0	25	0
	1.0 m or lower		60		60	
Up to 4.14	0.5 m or lower	0	30	0	30	0
	1.0 m or lower		70		65	
Up to 4.93	0.5 m or lower	0	30	0	30	0
	1.0 m or lower		80		75	
Up to 5.94	0.5 m or lower	0	35	0	30	0
	1.0 m or lower		90		90	
Up to 6.03	0.5 m or lower	0	35	0	30	0
	1.0 m or lower		95		90	
Up to 6.58	0.5 m or lower	0	35	0	35	0
	1.0 m or lower		100		100	
Up to 7.26	0.5 m or lower	0	35	0	35	0
	1.0 m or lower		110		110	

CONVENTIONAL APPLICATIONS (WITHOUT IN-BUILT DRIFT REDUCTION)

For applications without the in-built drift reduction, observe spray drift restraints in this section of the label.

BOOM SPRAYERS (ground application)
DO NOT apply by a boom 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 in Table 5 are observed.

Table 5. BUFFER ZONES FOR BOOM SPRAYERS – CONVENTIONAL APPLICATIONS (WITHOUT IN-BUILT DRIFT REDUCTION)

Application rate (L/ha)	Boom height above the target canopy	Mandatory downwind buffer zones (in metres)				
		Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 0.28	0.5 m or lower	0	0	0	0	0
	1.0 m or lower		10		10	
Up to 0.39	0.5 m or lower	0	0	0	0	0
	1.0 m or lower		15		15	
Up to 0.74	0.5 m or lower	0	0	0	0	0
	1.0 m or lower		30		25	
Up to 0.77	0.5 m or lower	0	0	0	0	0
	1.0 m or lower		30		30	
Up to 1.50	0.5 m or lower	0	15	0	15	0
	1.0 m or lower		45		40	
Up to 2.30	0.5 m or lower	0	25	0	25	0
	1.0 m or lower		60		55	
Up to 2.52	0.5 m or lower	0	30	0	25	0
	1.0 m or lower		60		60	
Up to 3.45	0.5 m or lower	0	30	0	30	0
	1.0 m or lower		80		75	
Up to 4.14	0.5 m or lower	0	35	0	35	0
	1.0 m or lower		90		90	
Up to 4.93	0.5 m or lower	0	40	0	35	0
	1.0 m or lower		110		110	
Up to 5.94	0.5 m or lower	0	45	0	40	0
	1.0 m or lower		130		130	
Up to 6.03	0.5 m or lower	0	45	0	45	0
	1.0 m or lower		130		130	
	0.5 m or lower	0	50	0	45	0
	1.0 m or lower		150		140	
Up to 7.26	0.5 m or lower	0	55	0	50	0
	1.0 m or lower		160		160	

OPTICAL SPOT SPRAYING TECHNOLOGY (WITHOUT IN-BUILT DRIFT REDUCTION)

DO NOT apply with optical spot spraying technology unless the following requirements are met:

- Spray droplets are not smaller than a COARSE or VERY COARSE spray droplet size category (see Table 6).
- Equipment is calibrated to deliver the equivalent of 100 L/ha.
- Boom height above the target canopy is 0.75 m or lower.
- Minimum distances between the application site and downwind sensitive areas in Table 6 are observed.

Table 6. BUFFER ZONES FOR OPTICAL SPOT SPRAY TECHNOLOGY (WITHOUT IN-BUILT DRIFT REDUCTION)

Minimum droplet size	Maximum water volume per hectare	Mandatory downwind buffer zones (in metres)				
		Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Early applications (6.16 L per 100 L water)						
COARSE	10 L (equivalent to 0.62 L/ha) to treat up to 10% weed cover	0	20 m	0	20 m	0
VERY COARSE	15 L (equivalent to 0.92 L/ha) to treat up to 15% weed cover	0	25 m	0	25 m	0
	30 L (equivalent to 1.85 L/ha) to treat up to 30% weed cover	0	35 m	0	35 m	0
Late applications (12.32 L per 100 L water)						
COARSE	10 L (equivalent to 1.23 L/ha) to treat up to 10% weed cover	0	35 m	0	35 m	0
VERY COARSE	15 L (equivalent to 1.82 L/ha) to treat up to 15% weed cover	0	35 m	0	35 m	0
	30 L (equivalent to 3.70 L/ha) to treat up to 30% weed cover	0	60 m	0	55 m	0

DIRECTIONS FOR USE

Table 7. WINTER CEREALS

Refer to RESTRAINTS and SPRAY DRIFT RESTRAINTS before application.

CROP	WEED	RATE (per ha)	CRITICAL COMMENTS
Barley Cereal rye Triticale Wheat Oats	Refer to the weed table (Table 16)	770 mL	Apply from mid-tillering (Z15/Z22 crop growth stage) to booting (Z43 crop growth stage). **DO NOT** spray if lucerne is present. **DO NOT** apply to undersown medics.

Table 8. CONSERVATION TILLAGE

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, maize, millet, mung beans, narbon beans, navy beans, oats, perennial ryegrass, Persian clover, phalaris, pigeon pea, rice, safflower, sorghum, soybean, subterranean clover, sunflower, triticale, vetch, wheat and white clover

Always apply with ammonium sulphate (AMS) plus glyphosate at recommended label rates but not less than 630 g glyphosate/ha.

Refer to RESTRAINTS and SPRAY DRIFT RESTRAINTS before application.

WEED	WEED GROWTH STAGE	RATE (per ha)	CRITICAL COMMENTS
Cow vine (*Ipomoea lonchophylla*)	4 to 6 leaf seedlings up to 10 cm diameter	275 mL	At the time of application, all weeds must be actively growing and not under stress from low moisture, frost, cold, disease or waterlogging. If grazing has occurred, allow regrowth to 6 - 8 cm before spraying and use the higher rate.
	Seedlings greater than 10 cm diameter	660 mL	
Fumitory (white) Ball mustard Indian hedge mustard Common sowthistle Turnip weed Wild turnip Wild radish	Seedling rosette up to 10 cm diameter / high	430 mL	
	Seedling rosette greater than 10 cm diameter / high	1.25 L	
Australian bindweed Bellvine Caltrop New Zealand spinach Raspweed	Seedling rosette up to 10 cm diameter / high	430 mL	
	Seedling rosette greater than 10 cm diameter / high	1.25 L	
Ageratum (blue top) Dock Volunteer lupins Volunteer peas Volunteer sunflower Charlock	Seedling rosette up to 10 cm diameter / high	600 mL	

Fumitory (red) Medic Paterson's curse Prickly lettuce (Wild lettuce) Saffron thistle Spear thistle Variegated thistle	Seedling greater than 10 cm diameter / high	790 mL	
Bathurst burr Blackberry nightshade Californian burr Horehound Lincoln weed Marshmallow Sorrel Thornapple Volunteer vetch Volunteer safflower Common ice-plant Storksbill (*Erodium* spp.) Ivyleaf speedwell Melilotus Shepherd's purse Skeleton weed (Suppression only) Ward's weed Wireweed (Hogweed) White clover Sub clover	Seedling up to 10 cm diameter / high	790 mL	
	Seedling greater than 10 cm diameter / high	1.14 L	
Amaranthus spp. Apple of Peru Mexican poppy Annual ground cherry Bladder ketmia Fat hen Melons Native rosella Noogoora burr Potato weed Yellow vine	Seedling up to 10 cm diameter / high	1.14 L	
	Seedling greater than 10 cm diameter / high	1.77 L	
Volunteer canola (*Brassica napus*) including Roundup Ready varieties	Seedling rosette up to 4 leaf growth stage	1.35 L	For adequate coverage use minimum 70 L water/ha. In situations where the PRAMOG model recommends no use of glyphosate in the year following glyphosate tolerant canola, alternative mode of action herbicides should be selected.
	Seedling rosette up to 6 leaf growth stage	1.84 L	
Flax-leaf fleabane (*Conyza bonariensis*)	Cotyledon to 12 leaf rosette prior to stem elongation	1 L (Autumn/winter applications)	For adequate coverage use minimum 70 L water/ha.

		1.69 L (Spring/summer applications)	
	Stem elongation to flowering	As above followed by 1.6 – 2 L paraquat (250 g/L)	Apply the sequential application 7 - 14 days after the first application (above). For adequate coverage use minimum 70 L water/ha. The sequential application of paraquat 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.

Table 9. FALLOW, STUBBLE SPRAY

Prior to direct drilling or sowing winter cereals, grain legumes, peanuts (Qld only) and canola.

Refer to RESTRAINTS and SPRAY DRIFT RESTRAINTS before application.

WEED	WEED GROWTH STAGE	RATE (per ha)	CRITICAL COMMENTS
Refer to the weed table (Table 16)	Refer to the weed table (Table 16)	310 mL – 2.30 L	Observe plantback periods given in Table 17 on this label. Select appropriate rate from the weed table (Table 16). For skeleton weed, spraying should only be done 6 - 8 weeks before anticipated sowing date and the subsequent cultivation limited to a minimum.
Volunteer canola (*Brassica napus*) including Roundup Ready varieties	Seedling rosette up to 4 leaf growth stage	1.38 L	
	Seedling rosette up to 6 leaf growth stage	1.92 L	

Table 10. OPTICAL SPOT SPRAY TECHNOLOGIES IN FALLOW

For weed cover between up to 10% (COARSE spray droplets) or 30% (VERY COARSE spray droplets) only. If percentage weed cover exceeds 30%, use boom spray rates.

Calibrate the sprayer to deliver the equivalent of 100 L water/ha.

Refer to RESTRAINTS and SPRAY DRIFT RESTRAINTS before application.

WEED	WEED GROWTH STAGE	RATE (per 100 L water)

Flax-leaf fleabane Common sowthistle Yellow vine (caltrop)	Rosette to flowering plants	6.16 L
	Late flowering to mature plants or plants under moisture stress	12.32 L

Table 11. PASTURES: CONSERVATION TILLAGE

Direct drilling, surface sowing or fallow maintenance

Refer to RESTRAINTS and SPRAY DRIFT RESTRAINTS before application.

WEED	WEED GROWTH STAGE	RATE (per ha)	CRITICAL COMMENTS
Charlock Mustards Shepherd's purse Saffron thistle Slender thistle Spear thistle Variegated thistle Turnip weed Wild radish Wild turnip	Refer to the weed table (Table 16)	725 mL – 2.15 L	Apply to actively growing young weeds before sowing. Observe plantback periods given in Table 17.

Table 12. PASTURES – SPRAY-GRAZE TECHNIQUES (BOOM APPLICATIONS)

PRECAUTION: An increased quantity of poisonous plants may be eaten by stock using spray-graze, e.g., caltrop, capeweed, Paterson's curse, variegated thistle and deaths could result from causes such as nitrate poisoning. With Paterson's curse, preferably graze stock soon destined for slaughter. Avoid extended periods of grazing. Avoid grazing with young or breeding stock. **DO NOT** graze horses or pigs on Paterson's curse.

Refer to RESTRAINTS and SPRAY DRIFT RESTRAINTS before application.

WEED	RATE (per ha)	CRITICAL COMMENTS
Amsinckia Annual thistles Caltrop Capeweed Charlock Double gee (spiny emex) Storksbill (*Erodium* spp.) Geranium Mustards Paterson's curse Shepherd's purse Slender thistle Turnip weed Wild turnip Wild radish	385 mL - 1.50 L	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 (cattle are less effective). Maintain this level of grazing for 6 weeks or until pasture shows signs of over grazing, but before the survival of desirable pasture species is threatened, then return to normal stocking levels. Use high stocking rates in the following spring to prevent weeds from flowering. Repeat treatments may be required for 2 - 3 years for complete control.
Spear thistle Variegated thistle Saffron thistle	825 mL - 1.69 L	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.
Melons	1.10 or 2.23 L	The lower rate provides effective control when applied to young plants and combined with intensive grazing.

Docks	1.50 L	Apply in September only and follow other recommendations above.

Table 13. PASTURES, NON-AGRICULTURAL AREAS, RIGHTS-OF-WAY, INDUSTRIAL AREAS (BOOM APPLICATIONS)

Refer to RESTRAINTS and SPRAY DRIFT RESTRAINTS before application.

CROP/ SITUATION	WEED	RATE (per ha)	CRITICAL COMMENTS
Fallow	Lippia (*Phyla canescens*)	2.76 – 5.53 L	Apply when lippia is in fresh conditions, mid-flower and has good soil moisture. A sequential application (applied twice over summer, 2 - 3 months apart) will provide the highest level of control. **DO NOT** apply in dry conditions. **DO NOT** apply more than two applications.
Pastures and non-agricultural areas	Refer to the weed table (Table 16).	770 mL - 2.30 L	Pasture legumes including lucerne, clovers and medics may be damaged unless well protected by grasses. Spot spraying is preferred.
	Afghan (camel) melons Paddy melons	2.23 L	Spray when plants are actively growing, preferably before flowering or vining. Larger and older plants will need the addition of Garlon 600 for adequate control.
	Prickly saltwort (roly poly)		Spray when plants are small.
	Sesbania pea	770 mL – 1.23 L	
Non-agricultural areas	Amsinckia Docks Bindweed Caltrop Flatweed Spear thistle Capeweed Saffron thistle Mustard Wild radish Wild turnip Annual thistles Paterson's curse Heliotrope Ragwort Three cornered Jack	1.50 – 3.30 L	Only seedling docks, spear thistle and saffron thistle will be controlled. SUMMER WEEDS: Use low rate for seedlings, 2.23 - 3.30 L/ha for larger plants. WINTER WEEDS: Use low rate for seedlings, 2.23 - 3.30 L/ha for larger plants.

	(spiny emex, double gee)		
	Stinkwort	2.23 – 4.38 L	Best results are obtained when plants are small. Use high rate on larger plants.
	Dove weed	4.38 L	Spray after good emergence of seedlings.
	Billygoat weed	4.66 L	Spray at young growth stages.
	Capeweed	2.30 - 3.84 L	Spray seedlings to the rosette growth stage.
	Castor oil plant	4.66 L	Spray at young growth stages.
	Horehound	3.07 - 4.38 L	Spray seedlings. Suppression only. Good coverage required.
	Knobweed	2.45 - 4.66 L	Lower rate for seedlings; higher rate for later growth stages.
	Paterson's curse	2.30 - 3.07 L	Spray rosettes or before plants have 10 leaves. Later growth stages are harder to control.
	Purple top	4.66 L	Spray at young growth stages.
	Storksbill (*Erodium* spp.)	2.23 - 4.38 L	Spray seedlings to young rosettes.
	Thornapple	2.23 - 3.30 L	Spray seedlings only.
Rights-of-way and industrial areas	Groundsel	3.95 – 6 L	Spray when groundsel is actively growing.
	Sesbania pea	770 mL – 1.23 L	
	Water hyacinth	4.74 – 7.26 L	Apply in 2,200 to 3,300 L water/ha.

Table 14. PASTURES, NON-AGRICULTURAL AREAS, RIGHTS OF WAY, INDUSTRIAL AREAS (SPOT SPRAY APPLICATIONS)

Refer to RESTRAINTS and SPRAY DRIFT RESTRAINTS before application.

CROP/ SITUATION	WEED	RATE (per 100 L of water unless stated otherwise)	CRITICAL COMMENTS

Pastures and non-agricultural areas	Galvanised burr	445 mL	Apply to young actively growing weeds. Ensure thorough and even coverage. Note: Treated plants need to be burnt to destroy seeds.
Pastures, rights-of-way and industrial areas	Boxthorn Boneseed Hawthorn	1.11 L	For boneseed only, thoroughly wet plants or seedlings.
	Groundsel	445 mL	Thoroughly wet plants.
	Lantana	445 mL	Use a coarse spray with sufficient pressure to penetrate the canopy and wet stems as well as foliage. Spray at the end of a wet summer (March to May). Defoliation should occur but re-spraying of new growth will be necessary in the following autumn. Broadcast grass seed and keep stock off the following summer to allow the pasture to establish. Damage may result to pasture legumes.
	Mother-of-millions	555 mL	Hand gun and knapsack only. A thorough coverage of leaves and plantlets is necessary.
	Noogoora burr Weir vine (ipomoea) Scarlet pimpernel (seedlings only) White eye (Mexican clover)	225 mL	In all cases apply to young, actively growing weeds, ensuring thorough coverage.
Pastures, rights-of-way and industrial	Annual and perennial pigweed Artichoke thistle Bathurst burr Billygoat weed Blue snake weed Burr medic Clockweed* Fleabanes Hemlock Hoary cress+ Kyalinga weed (whisker grass) Knobweed Milky cotton bushes Parthenium weed Paterson's curse Saffron thistle Star burr Thornapple Variegated thistle*	445 mL	In all cases apply to young, actively growing weeds, ensuring thorough coverage. * Spray at the rosette growth stage. + Repeat spraying necessary.

High Volume Spraying	Refer to the weed table (Table 16)	1/10th of the rate from the weed table in 150 L of water	Each 150 L of mix will cover 1,000 m^2 (1/10th ha). Example: If the rate in the weed table is 1.5 L, use 150 mL/150 L water.
Knapsack Application	Refer to the weed table (Table 16)	1/100th of the rate from the weed table in 10 L of water	Each 10 L of mix will cover 100 m^2 (1/100th ha). Example: If the rate in the weed table is 1.5 L, use 15 mL/10 L water.

Table 15. PASTURES, NON-AGRICULTURAL AREAS, RIGHTS-OF-WAY, INDUSTRIAL AREAS (CUT STUMP APPLICATIONS)

WEED	RATE (per 15 L of water unless stated otherwise)	CRITICAL COMMENTS
African boxthorn Boneseed Hawthorn	Undiluted	Apply or paint undiluted Colex-D® to freshly cut stumps.
Groundsel	335 mL	Swab the cut stump immediately. Apply by a knapsack sprayer.
Rubber vine		Apply to freshly cut stump.
Wild tobacco tree		Swab cut stump within 1 hour of cutting. Apply by knapsack sprayer.

Table 16. WEED TABLE

Listing of weeds and rates, where weeds are to be boom sprayed in specific situations, first refer to Table 7, 8, 9, 11, 12 and 13 and **DO NOT** exceed rates recommended.
Refer to Table 14 when spot-spraying pasture.

WEED	RATE (L/ha)	Critical Comments
Amaranthus spp.	0.77 - 1.50	Spray young plants.
Amsinckia	1.50	
Apple of Peru	0.77 - 1.50	Spray young plants. Susceptible when young.
Bathurst burr	1.10 - 2.30	Spray seedlings only.
Bellvine	2.30	Spray before seeding. Advanced growth stages susceptible.
Bindweed	1.50	
Blackberry nightshade	0.77 - 1.50	
Blackeyed Susan	2.30	Apply before flowering, preferably at young growth stages.
Blue snakeweed	2.30	Spray seedlings at young growth stages.
California burr	1.10 - 1.50	Spray seedlings only.
Cape tulip	0.88 - 1.77	Use the low rate on cormils only.
Capeweed	1.50	Spray seedlings to rosette growth stage. Refer to Table 12 for rates in pasture.
Caltrop	1.10 - 2.30	Moderately susceptible.
Charlock	0.77 - 1.92	Spray up to the rosette growth stage.

Clover	1.69	
Cobbler's pegs	2.30	Apply before flowering, preferably at young growth stages.
Common ice plant	1.50	
Common sida	2.30	Spray seedlings or at young growth stages only.
Common sowthistle	1.92 - 2.30	Apply before flowering, preferably at young growth stages.
Docks	1.50 - 1.92	Spray at multiple leaf growth stages. Effective only on seedlings.
Doveweed	1.50	
Fat hen	0.77 - 2.30	Spray before flowering.
Flannel weed	2.30	Spray seedlings or at young growth stages only.
Flat weed	1.50	
Fumitory – red	2.30	
Fumitory – white	0.77 - 1.10	Spray at multiple leaf growth stages.
Heliotrope	1.50	
Hexham scent (*Melilotus* sp.)	1.50 - 2.30	Spray at multiple leaf growth stages before seeding.
Hoary cress	1.23 - 2.30	Spray rosettes before flowering.
Hogweed/Wireweed	1.92	Spray at multiple leaf growth stages (Vic). Spray seedlings and at young growth stages (Qld).
Horehound	1.92	Spray seedlings. Suppression only. Good coverage required.
Indian hedge mustard	1.50 - 1.92	
Khaki weed	1.50 - 2.30	Spray seedlings only.
Lincoln weed	2.30	Spray early rosettes.
London rocket	1.50	
Lupins	1.10 - 2.30	
Matricaria	1.10	
Melons: camel (Afghan), paddy	0.77 - 2.30	Seedlings only. For reliable results on larger weeds in fallow situations add Garlon® 600.
Mexican poppy	1.92	Spray seedlings – resistant in later growth stages.
Mintweed	1.23 - 1.50	Spray seedlings – resistant in later growth stages.
Morning glory	2.30	Spray seedlings until flowering.
Mustards	0.31 - 1.92	Spray at 2 - 4 leaf up to the rosette growth stage.
Needle burr	2.30	Apply before flowering, preferably at young growth stages.
New Zealand spinach	1.50 - 2.30	
Noogoora burr	1.10 - 1.50	Spray seedlings only.
Paterson's curse	1.50	Spray rosettes or before plants have 10 leaves. Later growth stages are harder to control. Refer to Table 12 and Table 14 for rates in pasture.

Pinkburr (pink flowered burr)	2.30	Spray seedlings or at young growth stages only.
Potato weed	0.77 - 1.50	
Radish	1.50	
Ragwort	1.50 - 2.30	Spray up to the early rosette growth stage.
Rapistrum spp.	1.50	
Rough poppy	1.50	
Safflower	0.77 - 1.50	
Shepherd's purse	1.50 - 2.30	Spray young rosettes.
Siratro (purple bean)	2.30	Spray seedlings or at young growth stages only.
Skeleton weed	1.50 - 2.30	Spray rosettes before aerial growth commences.
Sorrel	1.92 - 2.30	Only moderately susceptible.
Speedwell – Ivy leaf	1.50	
Spinyhead sida	2.30	Spray seedlings or at young growth stages only.
Star burr	2.30	Spray before seeding, advanced stages susceptible.
Spiny emex	1.92	Only young plants are susceptible.
Star of Bethlehem (Cupid's flower)	2.30	Spray before seeding, advanced stages susceptible.
Stinkwort	1.10 - 1.92	
Storksbill (*Erodium* spp.)	1.92	Spray seedlings to young rosettes. Refer to Table 12 for rates in pasture.
Sunflower (seedlings)	0.77 - 1.92	
Thistle, annual	1.50	
Thistle, saffron	0.77 - 2.30	Low rate only sufficient to control weeds in crops at rosette stage when sprayed early.
Thistle, slender/shore	1.10 - 2.30	Suppression only.
Thistle, soldier	2.23	Spray young rosettes.
Thistle, spear	0.77 - 2.23	Spray young rosettes.
Thistle, variegated	0.77 - 2.30	Spray at rosette stage.
Thornapple	1.10	Spray seedlings only.
Tridax (tridax daisy)	2.30	Spray seedlings or at young growth stages only.
Turnip weed (*Rapistrum* spp.)	0.77 - 1.50	
Vetches/tares	1.50 - 1.92	Spray at multiple leaf growth stages.
Ward's weed	1.50	
Wild cabbage	1.92	Spray at multiple leaf growth stages.
Wild poppy	0.77 - 2.30	Spray rosettes.
Wild radish	1.10 - 2.30	Spray up to the young rosette growth stage.
Wild turnip	0.31 - 1.92	Spray from 2 - 4 leaf up to the rosette growth stage.

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

Table 17. PLANT BACK PERIODS (days)

CROP	RATES		
	Up to 770 mL/ha	Up to 1.58 L/ha	Up to 2.32 L/ha
Balansa clover	7	7	10
Barley❶	1	1	3
Chickpeas❷	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
Lupins❹	7	14	21
Medic	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
Canola❷	14	21	28
Rice	7	7	14
Safflower❷	7	14	21
Sorghum❸	3	7	10
Soybean	14	14	21
Sub clover	7	7	10
Sunflower❸	7	10	14
Triticale❶	1	3	7
Vetch	7	7	10
Wheat❶	1	3	7
White clover	7	7	10

IMPORTANT: WHEN APPLIED TO DRY SOILS AT LEAST 15 mm OF RAIN MUST FALL

PRIOR TO THE COMMENCEMENT OF THE PLANT BACK PERIOD.
NOTES:
❶ In Queensland, no rainfall is required to fall prior to commencement of Plant Back Period for wheat, barley and triticale.
❷ In Queensland, planting of canola, chickpeas and safflower must be delayed for at least 14 days following rainfall of at least 15 mm.
❸ In Central Queensland, when using 1.1 L/ha or less of Colex-D® the Plant Back Period for sorghum and sunflower is 1 day irrespective of rainfall.
❹ In WA the Plant Back Period for lupins at all rates is 28 days.