

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



Rygel
ClearUp 517 K
Herbicide



ACTIVE CONSTITUENT: 517g/L GLYPHOSATE
present as the potassium salt

GROUP	M	HERBICIDE
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**Non selective herbicide for the control of many
annual and perennial weeds**

**IMPORTANT: READ THE ATTACHED BOOKLET THOROUGHLY
BEFORE USING THIS PRODUCT**

Contents: 5L
(10, 20, 110, 200, 1000 Litres)

Rygel Australia Pty Ltd
ACN: 106 839 007
103 Ordish Road
Dandenong South, Vic 3175
Tel: 03 9768 2803
Fax: 03 9768 2804

DIRECTIONS FOR USE

For specific rates of application and complete directions for use, please read Directions for Use table in the attached booklet.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

For refillable containers:

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

SAFETY DIRECTIONS

Will irritate the eyes. May irritate the nose and throat. Repeated exposure may cause allergic disorders. Avoid contact with the eyes and skin. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length PVC or nitrile gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use each day's use, wash gloves, face shield or goggles and contaminated clothing.

FIRST AID

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

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet that is available from the supplier.

CONDITIONS OF SALE

The use of Rygel ClearUp 517 K Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Rygel Australia Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Rygel Australia Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

APVMA Approval No:

In an Emergency Dial 000 Police or Fire Brigade

Batch no:

D.O.M.:

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GROUP	M	HERBICIDE
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**Non selective herbicide for the control of many annual and
perennial weeds**

**READ THIS BOOKLET FOR THE COMPLETE DIRECTIONS FOR USE BEFORE
USING THIS PRODUCT**

Rygel Australia Pty Ltd
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103 Ordish Road
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APVMA Approval No.:

DIRECTIONS FOR USE**Restraints**

DO NOT disturb weeds by cultivation, sowing or grazing for six hours of daylight following treatment of annual weeds and seven days for perennial weeds to ensure herbicide absorption, unless specified otherwise in critical comments.

CONSERVATION TILLAGE

Situation	Weeds	Rate Vol/ha	Critical Comments
SOUTHERN AUSTRALIA Prior to sowing a crop or pasture with full soil disturbance with a cultivation or sowing with a tyned implement	Barley Grass	360 – 690mL pre tillering	<p>Rate Selection: Use higher rates for advanced weed growth or when treating under cold/overcast conditions.</p> <p>Cultivation or planting may proceed from 1 hour of daylight after application to seedling annual weeds if a satisfactory seedbed can be created for crop germination and seedling establishment.</p> <p>Silvergrass: When treating dense infestations of Silvergrass, add Rygel Grass-Wett and use water volumes of 70L/ha or more and small droplets to improve coverage.</p> <p>Perennial weeds: Rygel ClearUp 517 K Herbicide will provide seasonal control and reduction in plant numbers. Control of Skeleton weed requires addition of full soil disturbance at planting.</p> <p>In Tasmania, for perennial weeds use 1-2L/ha.</p>
	Brome grass		
	Volunteer cereals	690 – 880 mL post tillering	
	Wild oats		
	Annual phalaris	690 – 880mL pre tillering	
	Annual ryegrass	880 – 1.05L post tillering	
	Silvergrass		
	Winter grass		
Calomba Daisy	360 – 690mL less than 8cm diam/height	690 - 1.05L greater than 8cm diam/height	
Capeweed			
Doublegee (Spiny Emex)		8cm diam/height	
Fumitory			
Volunteer Lupins		1.05L	
Volunteer Peas			
Amsinckia	690 - 880mL less than 12cm diameter	880 – 1.05L greater than 12cm diameter	
Dock (seedling)			
Paterson's Curse		1.05L	
Saffron Thistle			
Scotch Thistle		1.05L	
Spear thistle			
Variiegated thistle		1.05L	
Wild turnip			
Perennial phalaris		1.05L	
Skeleton weed			
Sorrel		1.05L	
Sub clover			

Situation	Weeds	Rate Vol/ha	Critical Comments
SOUTHERN AUSTRALIA To commence a fallow OR prior to planting a crop or pasture with an implement that gives minimal soil disturbance or prior to surface seeding of pastures	Barley Grass Canary grass Volunteer cereals Wild oats	690mL – 1.05L	Rate Selection: Use the lower rate on young weeds; increase to the higher rate where grasses reach full tillering or where broadleaf weeds reach stem elongation or budding. Use higher rates in Spring and under cold conditions. In Tasmania use 1 - 2L/ha with the higher rate for control of perennial weeds. Pasture or Crop Establishment: Do not sow into excessive trash. Excessive plant residues may be removed by grazing after treatment. Planting may proceed from start 1 hour of daylight after application to seedling annual weeds if a satisfactory seedbed can be created for crop germination and seedling establishment. Aerial (or Surface) Seeding: Delay seeding until trash level is reduced to allow for satisfactory placement of broadcast seed on the soil surface. Bathurst burr: For mature weeds use the higher rate. Bent grass: Use a rate of 1.7L/ha. Apply in late spring following initiation of seed head emergence. Follow-up with full disturbance with a tined implement 10-21 days after spraying. Couch: Use the higher rate on dense infestations. Apply sequential treatments during summer and autumn. Repeat applications will be required for full control. For improved control, use in conjunction with cultivation. Dock, Flatweed: Use the maximum rate for full control. Hoary Cress: Use at a rate of 1L /ha. Treat from late rosette to early flowering. Kikuyu, Paspalum: Use the low rate for suppression, the high rate for control. Silvergrass: When treating dense infestations of Silvergrass, add Rygel Grass-Wett and use water volumes of 70L/ha or more and small droplets to improve coverage. Soursob: Use at a rate of 1L /ha. Treat at tuber exhaustion.
	Annual ryegrass Brome grass Capeweed Hoary Cress Paterson's curse Saffron thistle Scotch thistle Silvergrass Soursob Spear thistle Variegated Thistle Wild mustard Wild radish Wild turnip Wintergrass	1.05 – 1.35L	
	Bathurst Burr Bent grass Couch Dock Erodium Flatweed Kikuyu Plantain Paspalum Phalaris Sorrel Sub. Clover Yorkshire Fog	1.3 – 2.1L	
	Poa tussock	2.1 – 2.8L	
Pasture Topping	Annual ryegrass	315 – 710mL	Remove livestock prior to application to allow even regrowth. Use lower rate if grasses are flowering and higher rate if at the milky dough stage. Apply to Capeweed and Calomba Daisy at flowering. Do not add Rygel Grass-Wett. Do not apply to clover or medic crops intended for seed production.
	Barley grass Brome grass Capeweed Silvergrass	210 – 315mL	
	Calomba Daisy	315mL	
Seedhead Suppression	Bent grass	250 – 440mL	Apply treatments late October to late November, before seedheads have emerged. Add Rygel Grass-Wett. Use higher rate where growth is excessive. Graze hard after spraying.

Situation	Weeds	Rate Vol/ha	Critical Comments
SOUTHERN AUSTRALIA NSW, ACT, Vic, Tas only For control / suppression prior to establishing crops or improved pasture species	Serrated Tussock	2.8 – 4.2L	Apply to actively growing and stress free plants. Best results May to October. Application: Boom spray volume of 70L/ha or more is recommended to improve plant overage. Also see Aerial Equipment . Surfactants: Addition of 200mL of Rygel Grass-Wett to 100L of spraying solution may improve control of Serrated tussock. Site Preparation: Burning of Serrated tussock 10-12 months before spraying or slashing/ heavy grazing (cell grazing) 2 weeks before spraying is essential for good results (Note: Serrated tussock is almost indigestible and prolonged exposure can lead to starvation and death of stock). Rates: Use lower rate on Serrated tussock regrowth after burning (no residual dead foliage. Use higher rate on Serrated tussock that has been slashed or grazed (may contain some residual dead foliage).
For the prevention of seedhead emergence ad seed formation	Serrated Tussock	520 – 880mL	Apply to actively growing and stress free plants. Best results obtained during mid September - mid October. Apply prior to any seedhead emergence. Also see Aerial Equipment . Surfactants: Addition of 200mL of Rygel Grass-Wett to 100L of spraying solution may improve results. Rates: The lower rates will be less damaging to desirable pasture species. If seed-head emergence is imminent then higher rates will give better results.

Situation	Weeds	Rate Vol/ha	Critical Comments
NORTHERN AUSTRALIA In fallow or prior to planting a crop Cotton: Shielded Sprayers	Paradoxa grass Volunteer cereals Wild oats African Turnip weed Black Pigweed Boggabri weed Caltrop (Yellow vine) Deadnettle Mintweed Milk (Sow) Thistle Stinkgrass (Lovegrass) Sweet Summer Grass Variegated thistle Volunteer Sorghum	360 – 690mL 520 – 690mL up to 5 true leaves of 3cm in dia/height 690mL – 1.4L greater than 5 true leaves of 3cm in dia/height	Rate Selection: Use the lower rates on young weeds and increase to the higher rates where weeds are dense or well developed. Dense infestations of some weeds e.g. Barnyard grass, Liverseed (Urochloa) grass may need follow-up treatments for complete control. Tank Mixtures: Read and follow all label directions, restraints, plant-back periods, withholding periods, regional use restrictions and safety directions for the tank mix products. Tank mixes with atrazine may give unacceptable knockdown control of certain weeds. Do not apply the tank-mix for control of Barnyard grass, Liverseed grass or Milk Thistle. Ammonium sulphate may enhance knockdown

Situation	Weeds	Rate Vol/ha	Critical Comments
	Annual Ground Cherry Barnyard grass Bathurst Burr Bladder Ketmia Button grass Camel (Afghan) Melon Caustic weed Columbus grass Liverseed grass Mexican poppy Native Millet New Zealand Spinach Noogoora Burr Pigweed (up to 25cm) Spear Thistle Stinking Goosefoot Thornapple (Datura) Turnip weed Wild/Prickly Lettuce Wireweed	690mL -1.4L	weed control where tank mixtures of atrazine are used. Shielded Sprayers: Apply ClearUp 517 K to weeds growing between crop rows using a shielded sprayer. Do not apply in cotton less than 20cm high. Do not allow spray or spray drift to contact any part of the cotton plant as severe injury may result. Pasture or Crop Establishment: Do not sow into excessive trash. Excessive plant residues may be removed by grazing after treatment. Planting may proceed from 1 hour of sunlight after application to seedling annual weeds if a satisfactory seedbed can be created for crop germination and seeding establishment.
	Prickly Paddy Melon	670mL – 1.35L plus 80mL triclopyr 600 g/L	DO NOT add crop oil.
	Climbing Buckwheat (less than 12 leaves) Couch Johnson grass	1.35 – 2.1L	Use the higher rate on plants at the flowering/seedhead stage. For Johnson grass apply to plants with a minimum of 30cm new growth. For long term control of Couch and Johnson grass, repeat applications will be required.
	Nutgrass (<i>Cyperus rotundus</i>)	2.1L followed by 2.1L	Make first application to actively growing plants when majority of plants have reached at least the 6-8 leaf stage but preferably later. Allow for maximum re-emergence before re-treating.
SUGAR CANE Inter-row spraying	Annual and perennial grasses and broadleaf weeds	1.25 – 5.2L	Apply to weeds growing between crop rows using a ground based hooded and shielded sprayer, apply at early growth stage of crop, before formation of the cane. Apply no more than 3 applications, to maximum of 12L/ha per crop. Do not allow spray or spray drift to contact any part of the crop as severe injury may result.
SUGAR CANE Ratoon sprayout Qld, NSW, only	Sugar cane ratoon regrowth	4.2 – 6.3L	Apply under good growing conditions to actively growing ratoons 60 – 120cm tall. Do not apply if plants are under stress from waterlogging or low moisture. Use the lower rate for suppression or where cultivation is to follow. Use the higher rate for control.
Sorghum control	Grain Sorghum (pre-harvest)	1.05 – 1.4L	DO NOT apply if crop is under stress from low moisture, frost, cold or waterlogging. Apply when grain moisture is less than 25%. Use the higher rate where the crop has produced significant number of late tillers or where following crops will be established without further treatment. Do not apply to crops intended for seed protection. Treatment may increase potential for crop lodging.
	Grain Sorghum (post-harvest)	690mL – 1.4L	Slashed/Grazed stubble: Apply when fresh regrowth is at least 20cm high. Use the higher rate on standing stubble or where regrowth from slashed sorghum has advanced beyond 50cm in height.
Cotton Pre-harvest	Bathurst Burr Noogoora Burr Winter annual weeds	880mL – 1.8L	Treatments may be applied alone or in tank mixtures with Dropp or Harvade. Apply when at least 60% of bolls are open. When tank mixed with defoliants, a slightly higher proportion of cotton leaf may be retained, particularly where the higher rate is used and the conditions are unfavourable for

Situation	Weeds	Rate Vol/ha	Critical Comments
			defoliation.
<p>PRE-HARVEST APPLICATION to reduce viable seed set of weeds in:</p> <p>Field Peas (<i>Pisum sativum</i>) Faba Beans (<i>Vicia faba</i>)</p>	Annual ryegrass (<i>Lolium rigidum</i>)	330 – 710mL	<p>Use lower rate if Ryegrass is flowering and higher rate if Ryegrass is at milky dough stage.</p> <p>Application should be made at or after crop maturity. Application before this time may significantly reduce yields (in practice losses in excess of 25% can occur).</p> <p>Apply when average seed moisture content is below 30%. For Faba Beans, this is indicated by pods going black, and for Field Peas by the pods going yellow.</p> <p>Do not harvest within 7 days after application. Do not use on crops intended for seed or sprouting.</p>
<p>PRE-HARVEST APPLICATION as harvest aid and weed control:</p> <p>Wheat (<i>Triticum aestivum</i>)</p>	Annual weeds	940mL – 1.9L	<p>Apply to mature crop from late dough (28% moisture) onwards. The higher rate will be required when crops are heavy and leaf shading effects may occur.</p> <p>Do not harvest within 7 days after application. Do not use on crops intended for seed or sprouting.</p> <p>Where wheat is grown in rotation with any herbicide tolerant crop, management should be consistent with implementation of any management plan for herbicide tolerant crops.</p>
<p>PRE-HARVEST APPLICATION to desiccate crop as a harvest aid and weed control:</p> <p>Adzuki Beans Chickpeas Cowpea Faba Beans Field Peas Lentils Mungbeans Soybeans</p> <p>(Application to crops intended for seed production or sprouting may reduce germination to commercially unacceptable levels)</p>	Annual weeds	710mL – 1.9L	<p>Apply with boom or by air. Use higher rates where crops or weeds are dense and where faster desiccation is required.</p> <p>Application should be made at or after crop maturity.</p> <p>Chickpeas and Lentils: apply when physiologically mature and less than 15% green pods.</p> <p>Soybeans: apply only after seed pods have lost all green colour and 80-90% of leaves have dropped.</p> <p>Mung Beans/ Adzuki and Cowpea: apply to mature crops when pods are brown/black.</p> <p>Field Peas: apply when seeds turn yellow and average seed moisture is below 30%.</p> <p>Faba Beans: apply when pods turn black and average seed content is below 30%.</p> <p>Do not harvest within 7 days of application. Speed of crop desiccation is dependent on crop stage, growing conditions and weather conditions during and after application.</p>
<p>PRE-HARVEST APPLICATION to desiccate crop as a harvest aid and weed control:</p> <p>Chickpeas</p> <p>(Application to crops intended for seed production or sprouting may reduce germination to commercially unacceptable levels)</p>	Annual weeds	520mL – 1.15L plus 5g metsulfuron 600g/kg	<p>Apply by boom or by air. Apply when chickpeas are physiologically mature and less than 15% of green pods are present.</p> <p>Use higher rates where crops or weeds are dense and where faster desiccation is required.</p> <p>Do not harvest within 7 days of application. Speed of crop desiccation is dependent on crop stage, growing conditions and weather conditions during and after application.</p>

Situation	Critical Comments Read Application Checklist before using See Annual, Perennial and Woody weeds sections below for most appropriate rate.
<p>GENERAL WEED CONTROL For general weed control in Domestic areas (Home gardens), Commercial, Industrial and Public Service areas. Agricultural buildings and other farm situations. For specific weeds refer to the appropriate Weeds Controlled table.</p>	<p>For the control of many grasses and broadleaf weeds. Rate: 7.5mL per litre of water. Apply when weeds are actively growing. Apply to ensure complete and uniform wetting of foliage. Visible symptoms may take from 3 to 7 days to develop.</p>
<p>AGRICULTURAL AREAS</p>	<p>ClearUp 517 K may be used for control of annual and perennial and woody weeds as directed, in agricultural land prior to sowing of any edible or non-edible crop, but not prior to transplanting tomato seedlings.</p>
<p>DRY DRAINS and CHANNELS ONLY</p>	<p>DO NOT apply to weeds growing in or over water. DO NOT spray across open bodies of water, and do not allow spray to enter the water. DO NOT allow water to return to dry channels and drains within 4 days of application.</p>
<p>FORESTS</p>	<p>This product may be used prior to establishment of nurseries, for site preparation prior to planting and amongst established trees using a directed or shielded spray, or using selective wiper equipment. DO NOT allow wiper surface to contact any part of the tree. DO NOT allow spray or spray drift to contact foliage or green bark of desirable trees, since severe injury may result.</p>
<p>NON-AGRICULTURAL AREAS Around buildings, Commercial and Industrial areas, Domestic and public service areas, rights-of-way.</p>	<p>ClearUp 517 K does not provide residual weed control. For residual weed control, ClearUp 517 K may be tank-mixed with certain residual herbicides. Refer to Tank Mixtures/Compatibility.</p>
<p>TREE AND VINE CROPS Avocado, Banana, Blueberries, Citrus fruit, Custard apples, Duboisia Figs – dessert, Guava, Hops, Kiwifruit, Litchi, Mango, Monstera fruit, Nuts (including almond, pecan, macadamia, pistachio and walnut), Olives, Pawpaw, Persimmons, Pome fruit, Raspberries, Stone fruit, Tea, Vineyards.</p>	<p>Apply as directed or shielded spray or using wiper equipment. DO NOT apply as a spray near trees or vines less than 3 years old unless they are effectively shielded from spray and spray drift. DO NOT allow wiper surface to contact any part of the tree, vine or palm. Citrus fruit, Litchi, Nuts, Olives and Pome fruit & Vineyards: DO NOT allow spray or spray drift to contact green bark or stems, canes, laterals, suckers, fresh wounds, foliage or fruit. Hops: Apply in winter, prior to crop emerging from dormancy. Tea: Apply a maximum of 2.8L/ha by shielded boom or directed off-centre nozzle or 360mL/100L by directed handgun or knapsack to avoid application to the crop. All other crops: DO NOT allow spray or spray drift to contact any part of the plant including the trunk. CAUTION: Where split bark on Kiwifruit and greens stems on Pawpaw occur, extreme care is required.</p>

Weeds Controlled	Rate	Critical Comments
<p>ANNUAL WEEDS Amaranth, Bathurst Burr, Barley grass, Barnyard grass, Brome Grass, Caltrop, Canary Grass, Capeweed, Chickweed, Cobbler's pegs, Deadnettle, Doublegee, Fumitory, Ground Cherry, Hedge mustard, Lesser Swinecress, Liverseed Grass, Mintweed, Noogoora burr, Paradoxa grass, Paterson's Curse, Pigweed, Potato weed, Ryegrass, Saffron thistle, Silvergrass, Sow Thistle, Spear Thistle, Spiny Burrgrass, Spurge, Sub. Clover, Thornapple, Variegated Thistle, Volunteer Cereals, Wild Mustard, Wild Oats,</p>	<p>Boom: 1.4 – 2.1L/ha</p> <p>Handgun: 350 - 500mL per 100L</p> <p>Knapsack: 50 - 75mL per 15L</p>	<p>Apply to weeds whenever they are not subject to stress due to drought or frost. Use higher rate on weeds over 15cm in height or diameter or where dense weed cover limits spray coverage. Use higher spot spraying rate when applying less than 5L spray per 100sqm. ClearUp 517 K does not provide residual weed control. Repeat treatments may be necessary to control later germinating weeds. For residual control of annual weeds, ClearUp 517 K may be tank-mixed with certain residual herbicides. See Tank Mixtures in the General Instructions for directions. Do not use an atrazine tank-mix for control of Barnyard grass or Liverseed grass.</p>

Weeds Controlled	Rate	Critical Comments
Wild Turnip, Winter grass		
PERENNIAL WEEDS Artichoke Thistle, African Lovegrass, Bent grass, Carpet Grass, Cocksfoot, Flatweed, Johnson grass, Kangaroo grass, Kikuyu, Nutgrass (<i>Cyperus rotundus</i>), Paspalum, Phalaris, Plantains, Poa Tussock, Prairie grass, Qld Blue grass, Red-leg grass, Rhodes Grass, Rope Twitch, Sorrel, Soursob, Yorkshire Fog grass,	Boom: 2.1 – 4.2L/ha Handgun: 490 - 690mL per 100L Knapsack: 75 - 105mL per 15L	Control of established perennials is best obtained when plants are at the seedhead stage. In general best control of winter perennials is obtained with application during winter-spring. Best control of summer growing perennials is obtained with application late summer and autumn. For Nutgrass in cultivated situations apply sequential low rate treatments when Nutgrass has a minimum of 6-8 leaves. Use higher rate in uncultivated situations. For Rhodes grass, Rope Twitch, Prairie grass, Qld Blue grass, Johnson grass, Kangaroo grass, Kikuyu, Red-leg grass, Paspalum and Sorrel, use the higher rate only.
Blady grass, Bracken, Couch, Guinea grass, *Paragrass, Silverleaf Nightshade, *Water couch * use on dry drains and channels only, (see Situations critical comments above)	Boom: 6.3L/ha Handgun: 900mL – 1.4L per 100L Knapsack: 135 - 210mL per 15L	For Bracken add Penatra at 200mL/100L spray mix. Best control of couch in WA and SA is obtained with spring treatment. Most effective control of couch in the Eastern states is obtained with summer and autumn treatments. In cultivated situations use sequential treatments of 2.0 – 4.5L/ha for control. Use higher rate only for Silverleaf Nightshade.
WOODY WEEDS Bamboo, Bitou Bush, Boneseed, Boxthorn, Crofton weed, Gorse, Groundsel bush, Lantana, Mistflower	Handgun: 350 - 690mL per 100L Knapsack: 50 - 100mL per 15L	Apply to actively growing plants. Do not apply to drought stressed plants. Further treatment may be necessary to restrict seedling re-establishment. Bamboo , apply when foliage/regrowth is 1-2m tall. Bitou Bush/Boneseed , apply higher rates on bushes >1.5m. Best results are achieved when treated at peak flower during winter. Boxthorn minimum rate is 490mL for handgun and 75 mL for knapsack. Groundsel bush , apply higher rate on bushes greater than 2m. Do not apply in Winter. Minimum rate is 490mL for handgun and 75mL for knapsack. Gorse , always add Penatra at 200mL/100L of spray mix, use higher rate only. Lantana , use higher rate only. Addition of Penatra (200mL/100L) may improve control. Boxthorn Gorse, Lantana , Removal of bushes (after complete brownout), pasture improvement or further treatment are recommended to control seedlings and/or regrowth.
Blackberry, Chinese shrub, Eucalypts spp. (seedlings <2m), Hawthorn, bush, Pampas grass, Sifton bush, Sweet Briar, Willow (<2m)	Handgun: 690 - 900mL per 100L Knapsack: 105 - 145mL per 15L	Apply to actively growing plants. Removal of bushes (after complete brownout), pasture improvement or further treatments are recommended to control seedlings and/or regrowth. Blackberry , apply from flowering to leaf fall, use higher rate on old dense infestations >2m high. In Tasmania, do not treat bushes bearing mature fruit. Chinese scrub , use higher rates on bushes >1m. Eucalyptus spp. , add Penatra at 200mL/100L of spray mix. Hawthorn , apply from flowering to leaf fall, use higher rates on bushes greater than 2m. Pampas grass , allow regrowth to reach 1m, best results apply after flowering. Sifton bush , use higher rates on bushes greater than 1m. Sweet Briar , apply from flowering to leaf fall, use 1.05 – 1.4L/100L, and 155 – 210mL/100L, use higher rates on bushes greater than 1.5m.

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

WITHHOLDING PERIOD:

WHEAT & LEGUMES: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.

ALL OTHER USES: NOT REQUIRED WHEN USED AS DIRECTED.

GENERAL INSTRUCTIONS

PRODUCT INFORMATION

Rygel ClearUp 517 K is a non-volatile, non selective, water soluble liquid herbicide for the control of annual and perennial grasses and broadleaf weeds in a wide range of agricultural and non-agricultural use situations. ClearUp 517 K may be used for weed control in agricultural land prior to sowing any edible or non-edible crop, but not prior to transplanting tomato seedlings.

When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 2cm of natural rainfall or by applying water via a sprinkler irrigation system.

ClearUp 517 K is absorbed by plant foliage and green stems. It is inactivated immediately in the soil and does not provide residual weed control. This product moves through the plant from the point of contact to and into the root system. Initial visible effects on annual weeds take 3 to 7 days, but may not be noticeable for 2 to 3 weeks under cool cloudy conditions or on some perennial weeds.

RESISTANT WEEDS WARNING

GROUP	M	HERBICIDE
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Rygel ClearUp 517 K Herbicide is a member of the Glycines group of herbicides. ClearUp 517 K has the inhibition of EPSP synthase mode of action. For weed resistance management, ClearUp 517 K is a Group M herbicide.

Some naturally occurring weed biotypes resistant to ClearUp 517 K and other Group M 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 ClearUp 517 K or other Group M herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, Rygel Australia Pty Ltd accepts no liability for any losses that may result from the failure of ClearUp 517 K to control resistant weeds.

CROP ESTABLISHMENT

Rygel ClearUp 517 K Herbicide is recommended for control of emerged weeds prior to crop establishment. Cultivation and/or planting operations which provide conditions suitable for crop emergence and establishment are required following herbicide application. Where heavy weed growth is present or soil conditions are unsuitable, planting should be delayed to allow for decay of weeds and/or development of more favourable soil conditions for the formation of a suitable seedbed.

Incorporation of green or decaying vegetation may retard crop emergence under cold, wet conditions. Vegetation may be reduced by grazing and weed decay may be assisted by cultivation to leave trash on the surface

MIXING

ClearUp 517 K mixes readily with water. Reduced results may occur if water is used containing; suspended clay or organic matter, e.g. from dams, streams and irrigation channels, or high levels of calcium, magnesium or bicarbonate ions.

Do not mix, store or apply this product in galvanised steel or unlined steel containers or spray tanks, since a highly flammable gas mixture may be formed. Use stainless steel, aluminium, brass, copper, fibreglass, plastic or plastic lined containers or spray tanks. Spray tanks, pumps, lines and nozzles should be thoroughly rinsed with clean water following application.

Ensure the sprayer is free of any residues of previous spray materials prior to mixing. Use spray solutions promptly as a gradual loss of activity may occur over a period of days following spray preparation.

MIXING INSTRUCTIONS

1. Fill the spray tank 1/3 to 1/2 full with clean water and start agitation.
2. Where ammonium sulphate is recommended, add Liquid Boost at 2L/100L spray solution and mix thoroughly.
3. Add recommended herbicide/insecticide/additive to the spray tank and mix thoroughly.
4. Add ClearUp 517 K and the remaining water. Mix thoroughly.

5. Add surfactant, if required, near the end of the filling process to minimise foaming.
 6. Always maintain adequate agitation during application and use the tank mix promptly.
- Clean all equipment after use by washing thoroughly with clean water.

TANK MIXTURES

ClearUp 517 K may be tank-mixed with the following herbicides, insecticides and adjuvants. Read and follow all label directions, restraints, plantback periods and withholding periods, and safety directions for the tank-mix products. In multiple product tank mixes a minimum water volume of 50L/ha is recommended and local advice should be sought. Correct mixing order is important as is good in-tank agitation when application/spraying is occurring.

Herbicides

2,4-D ester, 2,4-D IPA, atrazine flowable or granular, carfentrazone, chlorsulfuron, dicamba, imazapic, LVE MCPA, metsulfuron-methyl oryzalin/trifluralin, oxyfluorfen, pendimethalin, simazine flowable or granular, sulfometuron methyl, triasulfuron, tri-allate, triclopyr, tribenuron.

The addition of oxyfluorfen at 75mL/ha to recommended rates of ClearUp 517 K prior to planting winter cereals will improve the knockdown of certain weeds.

Insecticides

This product is compatible with the following insecticides: dimethoate, fenitrothion, phosmet, omethoate, chlorpyrifos, fenitrothion ULV and emulsifiable concentrates of dimethoate and fenitrothion. Other insecticides have not been tested.

Adjuvants – Rygel Grass-Wett Surfactant

Rygel Grass-Wett is recommended for the control of Silvergrass and annual ryegrass in late winter and spring. Rygel Grass-Wett is not a general purpose surfactant and should only be used where recommended. Rate: 200mL/100L spray solution.

Adjuvants - Penatra Penetrant

Penatra Penetrant is recommended for the control of Bracken and many woody weeds. Rate: 200mL/100L spray solution

Adjuvants – Ammonium sulphate

Liquid Boost may be used as an adjuvant to alleviate the adverse effects of high levels of calcium, magnesium or bicarbonate ions in water. Add Boost to water first at 2L/100L spray solution.

APPLICATION

Boom Equipment

For boom application, a spray volume of 80L/ha or less is recommended for optimum performance. Nozzles and pressure settings should be selected to deliver a MEDIUM or MEDIUM-COARSE size droplet at the target (BCPC – British Crop Protection Council standard). The use of nozzle and/or pressure settings that produce VERY FINE or FINE droplets should be avoided as these are prone to loss or drift. In multiple product tank mixes a minimum water volume of 50L/ha is recommended and local advice should be sought. Correct mixing order is important as is good in-tank agitation when application is occurring.

For shielded applications a spray volume of 80L/ha or less is recommended using nozzle types and pressure settings to deliver a COARSE (BCPC) size droplet at the target. Crop damage may result if spray drift occurs through incorrect nozzle and/or pressure selection, inadequate shielding and/or wind strength, high evaporation rates or excessive ground speed.

Wiper Equipment

Wiper Equipment (e.g. ropewick, canvas, felt or carpet applicators) may be used to apply ClearUp 517 K. Avoid contact with desirable vegetation. Operate wiper equipment a minimum of 10cm above crop or pasture. Weeds should be at least 15cm above the crop or pasture at time of application. Speed of travel should be no greater than 8km/h. Best results are achieved at lower speeds and where two applications are made in opposite directions (double pass). Where weeds are of variable height, or occur in dense infestations or clumps, some plants may not be contacted by the herbicide solution. In these cases repeat treatment may be necessary.

Rate: Mix 700mL ClearUp 517 K with 2.3 litres of clean water. Adjust flow to suit equipment.

Aerial equipment

ClearUp 517 K may be applied by aircraft for control of weeds in forests, cropland or pasture prior to establishment of crops, new pastures or new forest plantings and for pre-harvest application to sorghum and cotton crops up to a maximum rate of 2.7L/ha where specified by the label. DO NOT apply treatments by aircraft in situations where drift onto sensitive crops and pastures is likely to occur.

Apply treatments using boom or Micronair equipment using a spray volume of not less than 20L/ha and using settings to produce a median droplet diameter of 250-350 microns. Swath width should be set to take into account aircraft type, wind conditions and target height. Swath width will need to be reduced to avoid stripping under light wind conditions and/or application to tall, dense targets e.g. pre-harvest application treatments in heavy crop stubble. Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove herbicide residues.

Application on Hilly Terrain

Increase water volume to 30-80L/ha and increase droplet diameter of output to at least 300 microns to optimise deposition of spray output onto weeds.

Air Temperature and Relative Humidity

DO NOT apply ClearUp 517 K by aircraft when temperature is above 30°C. Increase water volume to at least 30L/ha when temperature rises above 25°C. Avoid application when relative humidity falls below 35%.

AVOID DRIFT

DO NOT apply treatments with spraying equipment or under weather conditions which are likely to cause spray drift onto nearby susceptible crops, pastures or other sensitive plants. DO NOT apply treatments under light winds (less than 4km/hr) or inversion conditions or where wind speed exceeds 12km/hr.

APPLICATION CHECKLIST

- Do not treat weeds under poor growing conditions due to moisture stress, waterlogging, severe frosting, insect damage etc. Reduced performance may also occur where weeds are covered with dust or silt.
- Do not add surfactants, adjuvants or other pesticides except as specifically directed on this label.
- Rainfall occurring within 1 hour of application which causes run-off may require re-treatment. Rainfastness is reduced if weeds are not actively growing, under stress or conditions of low light intensity/darkness. The addition of Rygel Grass-Wett may improve rainfastness on winter annual weeds.
- A Withholding Period for grazing is not required. However, it is recommended that grazing of treated plants be delayed to ensure herbicide uptake. Certain plants such as Soursob, Variegated Thistle, Sorghum and Johnson grass, may be naturally toxic to stock when eaten in large quantities under certain conditions. Where plants are known to be toxic, grazing should be delayed until complete browning of treated plants has occurred.
- Apply treatments to weeds that have at least one true leaf (broadleaf weeds) or two leaves (grasses) to provide an adequate surface area for herbicide uptake.
- If heavy grazing has occurred, allow regrowth to 6-8 cm before spraying and use the higher rates recommended.

PROTECTION OF CROP, NATIVE AND OTHER NON-TARGET PLANTS

Avoid contact with foliage, green bark or stems, canes, laterals, suckers, fresh wounds, exposed non-woody roots, flowers or fruit of crops, desirable plants and trees, since severe injury or destruction 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.

PROTECTION OF WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT

DO NOT contaminate dams, rivers or streams with the product or used container. Do not apply to weeds growing in or over water. Do not spray across open bodies of water.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

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

SAFETY DIRECTIONS

Will irritate the eyes. May irritate the nose and throat. Repeated exposure may cause allergic disorders. Avoid contact with the eyes and skin. When opening the container, preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length PVC or nitrile gloves and face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use each day's use, wash gloves, face shield or goggles and contaminated clothing.

FIRST AID

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

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet which is available from the supplier.

CONDITIONS OF SALE

The use of Rygel ClearUp 517 K Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Rygel Australia Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Rygel Australia Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.