# CAUTION

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

SIPCAM

# Raze®

## Herbicide

**ACTIVE CONSTITUENT: 510 g/L GLYPHOSATE**
**present as the ISOPROPYLAMINE SALT**

| GROUP | 9 | HERBICIDE |
|---|---|---|

**A Non-Selective Water-Soluble Herbicide for the Control of a Wide Range of Annual and Perennial Weeds in a Wide Variety of Situations as per the Directions for Use**

**IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USING THIS PRODUCT**

**Contents: 5L - 1000L**

APVMA Approval No: 97927/154161

SIPCAM

SIPCAM PACIFIC AUSTRALIA PTY LIMITED
Level 1, 191 Malop Street, Geelong Vic 3220

® Registered Trademark of Sipcam Pacific Australia Pty Ltd

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

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

**SAFETY DIRECTIONS**
Product will irritate the eyes and skin. Avoid contact with eyes and skin. When preparing product for use, wear elbow-length PVC gloves and face shield or goggles. When using controlled droplet applicator, wear protective waterproof clothing and impervious footwear. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, face shield or goggles and contaminated clothing.

**FIRST AID INSTRUCTIONS**
If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

**SAFETY DATA SHEET**
For further information, refer to the Safety Data Sheet (SDS), which is available from the supplier or from our web site, www.sipcam.com.au

**NOTICE TO BUYER**
This product must be used in accordance with the directions for use. Where this product is not a good of a kind ordinarily acquired for personal, domestic or household use or consumption under the Australian Consumer Law, Sipcam's liability for any direct, indirect or consequential loss which you incur, including, without limitation, loss or damage to crop, loss of equipment, property damage, personal injury or death is limited, at Sipcam's option, to the replacement of the product or the supply of an equivalent product. By opening this package, you agree to be bound by these terms. If you do not agree to these terms, please return the entire unopened package intact to Sipcam or the place in which you purchased this product for a full refund.

® Trademark of Sipcam Pacific Australia Pty Ltd
* Not a trademark of Sipcam Pacific Australia Pty Ltd

drumMUSTER eligible container

Batch No.:
Date of Manufacture:

| |
|---|
| **This product is NOT subject to the provisions of the Australian Code for the transport of Dangerous Goods by road and rail when pack in this container and transported in Australia** |
| **For specialist advice in emergency only, call 1800 033 111 all hours, Australia wide** |

**G.H.S. STATEMENTS**
**HAZARD** H318 - Causes serious eye damage.
**PREVENTION** Wear eye/face protection. Use personal protective equipment as required.
**RESPONSE** If exposed or concerned: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician.

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**A Non-Selective Water-Soluble Herbicide for the Control of a Wide Range of Annual and Perennial Weeds in a Wide Variety of Situations as per the Directions for Use**

**THIS LEAFLET IS PART OF THE LABEL**

APVMA Approval No: 97927/154161

SIPCAM PACIFIC AUSTRALIA PTY LIMITED
Level 1, 191 Malop Street, Geelong Vic 3220

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**DIRECTIONS FOR USE**

**Restraints**

**DO NOT** disturb treated weeds by grazing, cultivation or sowing for 6 hours of daylight following treatment of annual weeds and seven (7) days for perennial weeds to ensure herbicide absorption, unless specified in the critical comments.

**DO NOT** treat weeds under any stress from frost, cold, disease, waterlogging, lack of moisture or disease. Plants must be actively growing to ensure optimum uptake of the product.

DO NOT apply to malting barley

| Situation | Weeds Controlled | State | Rate per ha | Critical Comments |
|---|---|---|---|---|
| **SOUTHERN AUSTRALIA**<br><br>Before sowing a crop or pasture<br><br>For weed control prior to sowing a crop or pasture with full soil disturbance by cultivation or sowing with a tyned implement | Barley Grass (*Hordeum leporinum*), Brome Grass (*Bromus unioloides*), Volunteer Cereals, Wild Oats (*Avena fatua*) | NSW, ACT, Vic, WA, SA only | 350mL - 700mL pre-tillering<br><br>700mL - 900mL post tillering | Use the higher rate when treating in cold/overcast conditions, when using late in the season. Use the lower rate on young weeds and the higher rate on mature weeds i.e. fully tillered grasses or broadleaf weeds at budding or stem elongation.<br>If weeds have been grazed heavily remove stock prior to spraying to ensure regrowth to 6-8 cm before treatment and use the higher rate.<br>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.<br>If cultivation or sowing does not take place within 21 days retreatment may be necessary.<br>Annual Ryegrass, Silver grass and Perennial grasses - It is recommended to use a water volume of 70L/ha or more with low volume nozzles to improve control. Addition of a non-ionic 1000 surfactant at 200mL/100L to the spray solution may improve control.<br>Crop Establishment: Sowing should not proceed until conditions allow for the formation of satisfactory seedbed. See Crop Establishment for directions.<br>Tank Mixtures: For improved control of clover add dicamba. Read and follow all label directions for the tank mix product.<br>For perennial weeds, perennial phalaris, Soursob, Skeleton weed and Sorrel this product will provide knockdown, seasonal suppression and reduction in treated plant numbers. |
| | Annual phalaris (*Phalaris canariensis*), Annual Ryegrass (*Lolium rigidum*), Silver Grass (*Vulpia* spp.) Winter Grass (*Poa annua*) | | 700mL - 900mL pre-tillering<br><br>900mL - 1L post tillering | |
| | Capeweed (*Arctotheca calendula*), Spiny Emex / Doublegee (*Emex australis*) | | 350mL - 700mL less than 8 cm diameter<br><br>700mL - 900mL greater than 8 cm diameter | |

| Situation | Weeds Controlled | State | Rate per ha | Critical Comments |
|---|---|---|---|---|
| **SOUTHERN AUSTRALIA**<br><br>Before sowing a crop or pasture<br><br>For weed control prior to sowing a crop or pasture with full soil disturbance by cultivation or sowing with a tyned implement.<br>**CONT[D]** | Amsinckia (*Amsinckia*), Fumitory (*Fumaria officinalis, F. muralis*), Paterson's Curse/Salvation Jane (*Echium plantaginium*), Saffron Thistle (*Carthamus lanatus*), Scotch Thistle (*Onopordum acanthium*), Spear Thistle (*Circium vulgare*), Variegated Thistle (*Silybum marianum*), Volunteer Lupins (*Lupinus angustifolius*), Wild Turnip (*Brassica tournefortii*) | NSW, ACT, Vic, WA, SA only | 700mL - 900mL less than 12 cm diameter<br><br>900mL - 1L greater than 12cm diameter | see above |
| | Dock -seedling (*Rumex crispus*) | | 700mL - 1L | |
| | Perennial Phalaris (*Phalaris*), Sorrel (*Rumex acetosella*), Sub Clover (*Trifolium subterraneum*), Sour sob (*Oxalis pes-caprae*), Skeleton Weed (*Chondrilla juncea*) - fully emerged rosettes (NSW only) | | 1L | |
| | All the above weeds | Tas only | 1.0 - 2.0L | Tas ONLY: Use 1.0L on annual weeds and 2.0L on perennial weeds. The product may also be tank mixed with dicamba (200g/L) to improve control of sorrel, dock and white clover. Observe dicamba label directions and plant back periods. Addition of non-ionic 1000 surfactant at 200mL/100L to the spray solution may improve control. |
| **SOUTHERN AUSTRALIA**<br>Before sowing a crop or pasture<br><br>For weed control prior to sowing a crop or pasture with minimal or no soil disturbance. | Barley Grass (*Hordeum leporinum*), Volunteer Cereals, Wild Oats (*Avena fatua*) | NSW, ACT, Vic, WA, SA only | 700mL – 1.0L | Use the higher rate when treating in cold/overcast conditions, when using late in the season. Use the lower rate on young weeds and the higher rate on mature weeds, i.e. fully tillered grasses or broadleaf weeds at budding or stem elongation.<br>If weeds have been grazed heavily remove stock prior to spraying to ensure regrowth to 6-8 cm before treatment and use the higher rate.<br>Annual Ryegrass, Silver grass and Perennial grasses - It is recommended to use water volumes of 70L/ha or more with low volume nozzles to improve control. Addition of non-ionic 1000 surfactant at 200mL/100L to the spray solution may improve control.<br>Do not sow if heavy trash is present.<br>Aerial Application: May be applied by air provided a good seed bed has been established. Always use the higher rates. |
| | Brome Grass (*Bromus unioloides*), Capeweed (*Arctotheca calendula*), Variegated Thistle (*Silybum marianum*), Winter Grass (*Poa annua*) | | 900mL - 1.4L | |

| Situation | Weeds Controlled | State | Rate per ha | Critical Comments |
|---|---|---|---|---|
| **SOUTHERN AUSTRALIA**<br>Before sowing a crop or pasture<br><br>For weed control prior to sowing a crop or pasture with minimal or no soil disturbance.<br>**CONT[D]** | Annual Ryegrass (*Lolium rigidum*), Paterson's Curse/Salvation Jane (*Echium plantaginium*), Saffron Thistle (*Carthamus lanatus*), Scotch Thistle (*Onopordum acanthium*), Silver Grass (*Vulpia* spp.) Spear Thistle (*Circium vulgare*), Wild Mustard (*Sisymbrium officinale*), Wild Turnip (*Brassica tournefortii*) | | 1.0 - 1.3L | **Cont[d].**<br>Tank Mixtures: For improved control of dock, sorrel and sub-clover add dicamba. Read and follow all label directions for the tank mix product. Addition of ammonium sulphate 2kg/100L may improve control when treating under adverse environmental conditions.<br>Pasture or Crop Establishment: Do NOT sow into excessive trash. 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. Trash may be removed by grazing after treatment. Grazing may commence 6 hours after treatment of annual weeds (small) and 7 days for perennial weeds. Delay grazing for 3 days where annual weeds are large. See also Crop Establishment.<br>Aerial (or Surface) Seeding: Delay seeding until trash is completely removed by grazing and/or plant decay. When establishing pasture, ensure application of fertiliser and insecticides and follow-up management is undertaken as required. |
| | Erodium (*Erodium cicutarium*), Plantain (*Plantago* spp.), Perennial Phalaris (*Phalaris aquatica*), Sorrel (*Rumex acetosella*), Sub Clover (*Trifolium subterraneum*) | | 1.2 – 1.8L | |
| | Dock (*Rumex* spp.), Flatweed (*Hypochoeris*) | | 1.8L | |
| | All weeds listed above | Tas only | 1.0 - 2.0L | Tas ONLY: Use 1.0L on annual weeds and 2.0L on perennial weeds. The product may also be tank mixed with dicamba to improve control of sorrel, dock and white clover. Observe dicamba label directions and plant back periods. Addition of non-ionic 1000 surfactant at 200mL/100L spray solution may improve control |
| **SOUTHERN AUSTRALIA**<br><br>For weed control before a fallow | Barley Grass (*Hordeum leporinum*), Volunteer cereals, Wild Oats (*Avena fatua*) | NSW, ACT, Vic, WA, SA only | 700mL-1.0L | Use the lower rate on young weeds or where cultivation is to take place within 21 days.<br>Use the higher rate where broadleaf weeds reach stem elongation/budding or where grasses are fully tillered.<br>If weeds have been grazed heavily remove stock prior to spraying to ensure regrowth to 6-8 cm before treatment and use the higher rate.<br>Soursob -Treat at tuber exhaustion<br>Hoary Cress -Treat from late rosette to early flowering<br>Annual Ryegrass, Silver grass and Perennial grasses - It is recommended to use water volumes of 70L/ha or more with low volume nozzles to improve control. Addition of non-ionic 1000 surfactant at 200mL/100L to the spray solution may improve control. |
| | Annual Ryegrass (*Lolium rigidum*), Brome Grass (*Bromus unioloides*), Silver Grass (*Vulpia* spp.) Capeweed (*Arctotheca calendula*), Paterson's Curse/Salvation Jane (rosette) *(Echium plantaginium*), Saffron Thistle (*Carthamus lanatus*), Scotch Thistle (*Onopordum acanthium*), Spear Thistle (*Circium vulgare*), Wild Mustard (*Sisymbrium orientale*), Wild Radish (*Raphanus raphanistrum*), Wild Turnip (*Brassica tournefortii*) | | 1.0 - 1.3L | |
| | Hoary Cress (*Cardia draba*)<br>Soursob (*Oxalis pes-caprae*) | | 1.0L | |

| SITUATION | WEEDS CONTROLLED | STATE | RATE L/ha | CRITICAL COMMENTS |
|---|---|---|---|---|
| **NORTHERN AUSTRALIA**<br><br>For weed control prior to sowing a summer or winter crop or in a fallow | Annual Phalaris (*Phalaris*), Barley Grass (*Hordeum_vulgare*), Volunteer cereals, Wild Oats (*Avena fatua*) | NSW, Qld only | 350mL - 700mL | Use the lower rate on young weeds or where cultivation is to take place within 21 days.<br>Use the higher rate where broadleaf weeds reach stem elongation/budding or where grasses are fully tillered. At more advanced stages, certain broadleaf weeds may require the higher rate range or the addition of 2,4-D.<br>In winter (cold) conditions, symptoms on Deadnettle may be slow to develop.<br>If weeds have been grazed heavily remove stock prior to spraying to ensure regrowth to 6-8 cm before treatment and use the higher rate.<br>Liverseed Grass and Barnyard Grass may be very sensitive to moisture stress. Dense stands may require re-treatment.<br>For aerial application see General Instructions. Do not apply by air if temperature is over 30°C.<br><br>*Larger plants (>5 cm) of Noogoora Burr, Variegated Thistle and Volunteer Sunflower may require up to 1.3L/ha to achieve control.<br>Crop Establishment: Sowing should not proceed until conditions allow for formation of a satisfactory seedbed. See Crop Establishment for directions.<br>Sowthistle: previously grazed plants may be difficult to control without allowing full recovery. |
| | Barnyard Grass (*Echinochloa crus-galli*), Liverseed grass (*Urochloa* spp.), Lovegrass/Stink Grass (*Eragrostis curvula*), Sweet summer grass, Volunteer Sorghum (*Sorghum halepense*) | | 700mL - 1.4L | |
| | Aust Bluebell (Qld only), (*Wahlenbergia gracilis*), Cudweed (*Gnaphalium luteo-album*), Fumitory (*Fumaria officinalis*), Mexican Poppy (*Argemone ochroleuca*), Mintweed (*Salvia reflexa*), New Zealand Spinach (*Tetragonia tetragonoides*), *Noogoora Burr (*Xanthium pungens*), Saffron Thistle (*Carthamus lanatus*), Spear Thistle (*Circium vulgare*), Spurge (*Euphorbia* spp.), *Variegated Thistle (*Silybum marianum*), *Volunteer sunflower, Yellowvine/ Caltrop (*Tribulis terrestris*) | | 700mL - 1.0L | |
| | Wireweed (*Polygonum aviculare*) | | 700mL - 1.0L | |
| | Boggabri weed (*Amaranthus macrocarpus*), Caltrop (*Tribulis terrestris*), Indian Hedge Mustard (*Sisymbrium orientale*), Mintweed (*Salvia reflexa*), Summer grass (*Digitaria ciliaris*) | | 350 - 700mL up to 3cm in height or diameter or up to 5 true leaves<br>OR<br>700mL - 1.0L greater than 3cm in height or diameter or 5 true leaves. | |
| | Annual Ground Cherry (*Physalis angulata*), Bladder ketmia, Sowthistle (*Sonchus oleraceus*), Turnip Weed (*Rapistrum rugosum*), Wild Lettuce (*Lactuca saligna*), Wild Turnip (*Brassica tournefortii*) | | 700mL - 1.0L prior to stem elongation/ budding<br>OR 1.0 - 1.3L after stem elongation / budding | |

**PASTURE RENOVATION AND TOPPING**

| Situation | Weeds Controlled | State | Rate per ha | Critical Comments |
|---|---|---|---|---|
| Pasture with Poa Tussock present as a weed<br><br>For pasture renovation | Annual weeds (see previous table) and Poa tussock (*Poa labillardii*) | Qld, NSW, ACT, Vic, Tas only | 2.1 - 2.8L | Before spraying<br>* graze heavily<br>* remove stock 14 days or more before treatment<br>* apply after autumn break when plants are actively growing but before frosts begin (March-May).<br>Increasing to the higher rate may give more effective reductions.<br>Sowing of new pasture may begin 14 days after treatment. It is essential that correct follow-up pasture establishment and management occurs after treatment. Spot treatment will limit re-infestation.<br>May be aerially applied. |
| Pasture with Bent Grass present as a weed<br><br>For control/suppression of Bent Grass before sowing a crop or pasture | Annual weeds (see Annual Weeds table in this label) and Bent Grass (*Agrostis tenuis*) | Tas, Vic only | 1.8L | Apply late spring when seed heads have developed but before the onset of summer moisture stress. Remove stock prior to spraying to achieve good foliage cover. Ensure plants are actively growing.<br>10-21 days after spraying fully disturb soil with a tyned implement and then sow summer crop and/ or re-seeded pasture or crop the following autumn. |
| Pasture Topping for the reduction of seed set of annual grasses, Capeweed and Calomba daisy | Annual Ryegrass (*Lolium rigidum*), Calomba daisy (*Pentzia suffruticosa)* | NSW, ACT, Vic, SA, WA, Tas only | 330mL | Use the higher rate for heavy infestation or where annual ryegrass is present. Apply before 'haying off'.<br>Annual Ryegrass and Capeweed - Apply at Flowering<br>Other weeds - Apply at head to milky dough stage.<br>Stock should be removed before spraying to allow regrowth.<br>Pasture legumes may be affected. Do not apply to medic/clover crops to be used for hay or seed. Apply a maximum of 50L/ha water. Above this water volume add a non-ionic surfactant. |
| | Barley Grass (*Hordeum leporinum*), Brome grass (*Bromus unioloides*), Capeweed (*Arctotheca calendula*), Silver Grass (*Vulpia* spp.) | | 210 – 330mL | |
| Pasture manipulation for the control /suppression of certain grasses before sowing soybeans, forage crops or Leucaena | Carpet Grass (*Xonopus* spp.), Kikuyu (*Pennisetum clandestinum*), Paspalum (*Paspalum dilatatum*) | WA, NSW, ACT, Vic only | 1 - 4.2L | Apply the lower rate for suppression only. The higher rate will provide control.<br><br>**Leaucana - (Qld ONLY)**<br>Rows should be 4m apart. Use 1.8L/ha with single taper fan nozzle LFI-80 mounted at the rear of a single row planter giving a 1 metre swath. |
| | Carpet Grass, Paspalum | Qld only | 1 - 4.2L | |
| | Kikuyu | | 440mL - 4.2L | |
| | Black spear grass (*Hederopogon contortus*), Wire grasses (*Aristida* spp.), Love Grasses (*Eragrostis* spp.), Red Natal Grass (*Rhynchelytrum repens*), Barbed Wire Grass (*Cymbopogon refractrus*) | | 2.1L | |

**SUGAR CANE (RATOON CONTROL) FOR Qld AND NSW ONLY**

| Situation | Variety | Rate L/ha | Critical Comments |
|---|---|---|---|
| **Sugar Cane**<br><br>Ratoon Control | Q63, Q87, Q90, Q102, Q117, Q120, Q129, Q130, H56-752, Pindar, Triton | 2.1 - 2.8L | Apply when ratoons are actively growing and are 60-100cm tall. DO NOT apply if plants are under stress from water logging or low moisture.<br>Use the lower rate for suppression or where control by cultivation is planned.<br>Use the higher rate for control.<br>Boom height must allow for correct overlap of the spray pattern at the top of the crop canopy. |
| | Q86, Q96, Q113 | 2.8 - 3.5L | |
| | Cassius, Q115, Q122, Q94 | 3.5 - 4.2L | |
| | NCO310, Q107 | 4.2 - 6.3L | |

**RICE DIRECT DRILLING FOR NSW ONLY**

| Situation | Weeds Controlled | Rate L/ha | Critical Comments |
|---|---|---|---|
| **Rice**<br><br>Direct Drilling | Annual Ryegrass (*Lolium rigidum*), Annual Phalaris (*Phalaris canariensis*), Barley Grass (*Hordeum leporinum*), Burr Medic (*Medicago* spp.), Sub-Clover (*Trifolium subterraneum*), Winter Grass (*Poa annua*) | 700mL - 900mL | If plants are drought stressed a pre-watering must be applied. If the site has been grazed allow plants to regrow to 6-8 cm before treatment.<br>For the control of Annual Ryegrass use the higher rate and add non-ionic 1000 surfactant at 200mL/100L of spray solution.<br>Crop Sowing- Sow 1-14 days after treatment. Residual control will only be achieved by adding another suitable herbicide. |

**PRE AND POST HARVEST USES**

| Situation | Weeds Controlled | Rate per ha | Critical Comments |
|---|---|---|---|
| **Sorghum control**<br>before harvest | Grain sorghum (*Sorghum bicolor*) | 1.0 or 1.3L | DO NOT apply to varieties intended for seed production or varieties prone to lodging.<br>DO NOT apply to crop under stress from factors such as waterlogging, frost, disease, low moisture etc.<br>Apply when grain moisture is less than 25%. The product can be applied when some browning has occurred.<br>Use the lower rate for control of the crop, late tillers and ratoon regrowth.<br>Use the higher rate for better suppression of ratoon regrowth.<br>Treatment may increase potential for crop lodging especially if the crop has been stressed by low moisture. In this situation harvest as soon as possible after sufficient dry brown to prevent further lodging.<br>CAUTION: Sorghum may be naturally toxic to stock. |
| **Sorghum control**<br>After harvest | Sorghum stubble (grain sorghum) (*Sorghum bicolor*) | 700mL - 1.0L for new regrowth from slashed stubble<br><br>1.2 - 1.6L for standing green stubble<br><br>800mL - 1.2L for fresh spring regrowth | DO NOT apply if plants are stressed from such factors as waterlogging, frost, disease, low moisture, etc.<br>For slashed stubble and spring regrowth apply when regrowth is at least 20cm high.<br>Standing Stubble - apply only if sufficient green leaf is present. Allow regrowth of at least 20 cm if grazing has occurred.<br>Use the lower rate for knockdown and regrowth suppression where cultivation is to follow.<br>Use the higher rate for better control of regrowth.<br>It is important to note that variable results can occur if the crop has been under stress or grown under marginal conditions. The varieties Ruby, Trump, Nugget 2, Goldrush 2 and Prize are particularly susceptible if growing conditions are not ideal.<br>CAUTION: Sorghum may be naturally toxic to stock. |
| **Cotton**<br>Pre-Harvest | Bathurst burr, Noogoora burr, Winter annual weeds | 890mL – 1.8L | Treatments may be applied alone or in tank mixture with Dropp or Harvade. Apply when 60% bolls are open.<br>When tank mixing with conditioner/defoliant treatments, a slightly higher proportion of cotton leaf may be retained, particularly where higher rates are used, and conditions are unfavourable for defoliation. |

| Situation | Weeds Controlled | Rate per ha | Critical Comments |
|---|---|---|---|
| **PRE-HARVEST APPLICATION**<br>As harvest aid and weed control;<br>**Wheat** (*Triticum aestivum*) | Annual weeds | 950mL – 1.9L | Apply to mature crop from late dough stage (28% moisture) onwards. The higher will be required when crops are heavy and leaf shading effects may occur.<br>DO NOT harvest within 7 days after application.<br>DO NOT use on crops intended for seed or sprouting.<br>When weed is grown in rotation with any herbicide tolerant crop, management should be consistent with implementation of any management plan for herbicide tolerant crops. |
| **PRE-HARVEST APPLICATION**<br>**Barley (except malting barley)** *(Hordeum vulgare L.)* | Pre-harvest application as a harvest aid and for spray-topping of annual grass weeds in crop | 1.8L | Apply to mature crops from late dough stage (28% moisture) onwards.<br>DO NOT apply more than one (1) treatment per crop.<br>DO NOT apply if heavy rains are imminent. |
| **PRE-HARVEST APPLICATION**<br>To reduce the viable seed set of weeds in:<br>**Field Peas** (Pisum sativum)<br>**Faba Beans** (*Vicia faba)* | Annual ryegrass (*Lolium rigidum*) | 335 – 720mL | Use the lower rate if Ryegrass is flowering and higher rate if Ryegrass is at the milky dough stage. Application should be made at or near crop maturity.<br>Application before this time may significantly reduce yields (in practice losses in excess of 25% can occur).<br>Apply when the average seed moisture content is below 30%.<br>For Faba beans, this is indicated by the pods going black, and for Field peas by the pods going yellow.<br>DO NOT harvest within 7 days after application.<br>DO NOT use on crops intended for seed or sprouting. |
| **PRE-HARVEST APPLICATION**<br>To desiccate a crop as a harvest aid and weed control.<br>**Adzuki beans, Chickpeas, Cowpea, Faba Beans, Field Peas, Lentils, Mung beans, Soybean**<br>(Application to crops intended for seed production or for sprouting may reduce germination percentage to commercially unacceptable levels.) | Annual Weeds | 720mL – 1.9L | Apply with boom or by air. Use higher rates where crops or weeds are dense and where faster desiccation is required. Application should be made at or after crop maturity:<br>**Chickpeas and Lentils** - apply when physiologically mature and less than 15% green pods.<br>**Faba Beans** - apply when pods turn black and average seed moisture content is below 30%.<br>**Field Peas** - apply when seeds turn yellow and average seed moisture content is below 30%.<br>**Mung beans / Adzuki and Cowpea**- apply to mature crops when pods are brown/black.<br>**Soybean**-apply only after seed pods have lost all green colour and 80-90% of leaves have dropped.<br>**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.** |

**ANNUAL WEEDS - FOR ALL STATES**

| Weeds Controlled | Rate | Critical Comments |
|---|---|---|
| Amaranth (*Amaranthus spp*), Barley Grass (*Hordeum leporinum*), Barnyard Grass (*Echinochloa crus-galli*), Brome grass (*Bromus* spp.), Caltrop (*Tribulus terrestris*), Canary Grass (*Phalaris* sp.), Capeweed (*Arctotheca calendula*), Cereals - volunteer (barley, wheat, oats, sorghum), Chickweed (*Stellaria media*), Cobbler's Peg (*Bidens pilosa*), Fumitory (*Fumaria officinalis, F. muralis*), Ground Cherry (*Physalis angulatis*), Lesser Swinecress (*Coronopus didymus*), Liverseed grass (*Urochloa panicoides*), Mintweed (*Salvia reflexa*), Paradoxa grass (*Phalaris paradoxa*), Paterson's Curse/Salvation Jane (*Echium plantagineum*), Pigweed (*Portulaca oleracea*), Potato Weed (*Galinsoga parviflora*), Ryegrass - annual (*Lolium rigidum*), Saffron thistle (*Cathamus lanatus*), Silver grass (*Vulpia spp.*), Sow thistle (*Sonchus oleraceus*), Spear thistle (*Circium vulgare*), Spiny burr grass (*Cenchrus spp.*), Spurge (*Euphorbia spp.*), Sub clover (*Trifolium subterraneum*), Wild Mustard (*Sisymbrium officinale*),Wild Oats (*Avena fatua*), Wild Turnip (*Brassica tournefortii*), Winter grass (*Poa annua*), Variegated Thistle (*Silybum marianum*) | BOOM<br>1.3 – 2.1L/ha<br><br>HANDGUN<br>350 - 490mL<br>per 100L<br><br>KNAPSACK<br>50 - 70mL<br>per 15L | Apply only to plants which are actively growing and not suffering stress.<br>Use the lower rate for weeds up to 15cm and the higher rate for weeds over 15cm.<br>The effects of the product may take 3-7 days to appear under normal conditions and up to 20-30 days in cool conditions.<br>NO residual control will be provided by this product. Germinations after initial treatment may have to be resprayed.<br><br>For residual control the product should be tank-mixed with a suitable residual herbicide. |

**PERENNIAL WEEDS**

| Weeds Controlled | State | Boom L/ha | Handgun Vol/100L | Knapsack Vol/15L | Critical Comments |
|---|---|---|---|---|---|
| Bamboo (*Bambusa* spp.) | All States | - | 700mL | 100mL | Apply to actively growing foliage and/or regrowth which is between 1 and 2 metre tall.<br>Cut stump - dilute the product 1:6, i.e. 1 part Raze Herbicide to 6 parts water, cut stems back to 20cm high, pour mixture down hollow stem or paint the cut. |
| Bent Grass (*Agrostis capillaris*) | Vic, Tas only | 1.8L | 350mL | 50mL | Apply to plants which have some seed-head development late in the spring. Plants must be actively growing. It is necessary to follow-up spraying with full soil disturbance within 21 days and then plant to a summer crop and/or re-seeded pasture or crop in autumn. |
| Blady Grass (*Imperata cylindrica*) | NSW, ACT, Qld only | 6.3L | 900mL | 140mL | Apply to actively growing plants when most plants have reached the head stage. |
| Bracken (*Pteridium esculentum*) | All States | - | 1.0L | 160mL | * For best control Wiper application is recommended.<br>* Bracken should be slashed in the previous Winter/Spring so that application is made to new growth.<br>* Apply to actively growing fully unfurled fronds in Autumn (March - May) before the onset of frosts.<br>* Symptoms may be very slow to appear.<br>* Follow-up treatment is recommended as control will NOT be achieved after one treatment. |
| Carpet grass (*Axonopus* spp.) | All States | 2.1L | 350mL | 50mL | Apply to actively growing plants at early head stage. |
| Cocksfoot (*Dactylis glomerata*) | All States | 2.1L | 500mL | 70mL | Apply to actively growing plants at early head stage. |
| Couch (*Cynodon dactylon*) | All States | 6.3L | 900mL | 130mL | Apply to actively growing plants when most plants are at the early head stage. For best results in WA and SA apply in Oct-November |
| Flat Weed /Cat's Ear (*Hypochoeris radicata*) | All States | 2.1L | 500mL | 70mL | Apply at early flower stage to fully developed rosettes. |
| Guinea Grass (*Panicum maximum*) | All States | 6.3L | 900mL | 130mL | Apply to actively growing plant at early head stage. May be applied by Wiper equipment. |
| Hoary Cress (*Cardia draba*) | NSW, ACT, Tas, Vic only | 1.0L | 350mL | 50mL | Apply late July to early September to actively growing plants at the late rosette to flowering stage. Ensure plants are not stressed at time of spraying. Where stems are long enough wiper equipment may be used. Tas: Add a non-ionic surfactant at the recommended rate. |
| Johnson Grass (*Sorghum halepense*)<br>Kangaroo Grass (*Themeda australis*)<br>Kikuyu (*Pennisetum clandestinum*) | All States | 4.2L | 700mL | 100mL | Apply to actively growing plants at early head stage.<br>May be applied by Wiper equipment to Johnson Grass. |

| Weeds Controlled | State | Boom L/ha | Handgun Vol/100L | Knapsack Vol/15L | Critical Comments |
|---|---|---|---|---|---|
| Lovegrass - African (*Eragrostis curvula*) | Vic, NSW, ACT, WA only | 4.2L | 700mL | 100mL | Apply to actively growing plants.<br>To restrict seedling re-establishment pasture improvement is recommended. |
| Nutgrass (*Cyperus rotundus*) | All States | 4.2L | 700mL | 100mL | Non-cultivated situations: Apply to actively growing plants in February - April. |
| | | 2.1L<br>+<br>2.1L | 500mL<br>+<br>500mL | 70mL<br>+<br>70mL | Cultivated Situations: Make first application when at least 20% of plants have reached early head stage (about Feb). Make the second application when most plants have re-emerged (about 6-8 weeks after first application). Follow up treatments may be necessary as further plants emerge. |
| Pampas Grass (*Cortaderia* spp.) | All States | - | 700mL or 900mL | 100mL or 130mL | Apply to in spring, summer or autumn to actively growing plants. Ensure complete coverage of the foliage. Best results are obtained if plants are sprayed at flowering. Use the lower rate for plants under 1 metre tall and the higher rate for larger plants. Plants may be cut prior to application but regrowth must be at least 1 metre prior to spraying. |
| Paragrass (*Brachiara mutica*) | All States | 6.3L | 900mL | 130mL | Apply to actively growing plants at early head stage. |
| Paspalum (*Paspalum dilatatum*) | All States | 4.2L | 700mL | 100mL | Apply to actively growing plants at early head stage. |
| Phalaris (*Phalaris aquatica*) | SA, Vic, NSW, ACT only | 2.1 or 4.2L | 350mL or 700mL | 50 or 100mL | Apply in winter-spring to actively growing plants.<br>Use lower rate where only knockdown is required such as prior to burning for a fire break. Burning should not take place for 2 - 3 weeks after spraying. The higher rate should be used for longer term control |
| Plantains (*Plantago* sp.) | All States | 2.1L | 500mL | 70mL | Apply to actively growing plants at the early head stage. Symptoms may be slow to appear. |
| Prairie Grass (*Bromus unioloides*), Qld Blue Grass (*Dichanthium sericeum*), Red-leg Grass (*Bothriochloa ambigua*), Rhodes Grass (*Chloris gayana*), | All States | 4.2L | 700mL | 100mL | Apply to actively growing plants at the early head stage. |
| Rope Twitch (*Agropyron repens*) | Tas, Vic only | 4.2L | 700mL | 100mL | Apply in late summer-autumn to actively growing plants with foliage at least 20cm high. To ensure maximum shoot emergence the area should NOT be cultivated in the period from the preceding Winter until the time of spraying. |
| Sorrel (*Rumex acetocella*) | All States | 4.2L | 700mL | 100mL | Apply to actively growing plants when the majority of plants are at the early bud stage. |
| Soursob (*Oxalis pes-caprae*) | NSW, ACT, Vic, Tas, WA, SA only | 1.0L | 350mL | 50mL | Apply to actively growing plants late July to early September prior to plant senescence (yellowing). Ensure plants are not stressed at time of application. If plants have been grazed or frosted allow regrowth before treatment. |
| St John's Wort (*Hypericum perforatum*) | All States | 2.1L | 350mL | 50mL | Apply to actively growing plants at flowering to post flowering, procumbent stem stage (about Nov-May). Pasture improvement or re-treatment may be necessary to prevent seedling re-establishment. |
| Thistle - Artichoke (*Cynara cardunculus*) | SA, Vic only | 2.1L | 350mL | 50mL | Apply when plants are at the rosette to early head stage. |

| Weeds Controlled | State | Boom L/ha | Handgun Vol/100L | Knapsack Vol/15L | Critical Comments |
|---|---|---|---|---|---|
| Thistle - Californian (*Circium arvense*) | Vic, Tas only | 4.2L | 350mL | 50mL | Apply to actively growing plants at the flowering stage. To ensure maximum shoot emergence the area should not be cultivated prior to spraying. Re-treatment and/or pasture improvement may be necessary to restrict seedling re-establishment. |
| Yorkshire Fog (*Holcus lanatus*) | All States | 2.1L | 500mL | 70mL | Apply to actively growing plants at the early head stage. |

**WOODY WEEDS AND BRUSH**

| Weeds Controlled | State | Handgun Vol/100L | Knapsack Vol/15L | Critical Comments |
|---|---|---|---|---|
| Bitou Bush/ Boneseed (*Chrysanthemoides monilifera*) | NSW, ACT, Qld, Vic, Tas ONLY | 350 or 700mL | 50 or 100mL | Apply to actively growing plants Do not treat plants which are stressed, particularly drought stressed. Spray to wet all foliage. Best results are achieved when treated during the winter at peak flowering time.<br>Use the higher rate on larger bushes. Follow-up treatment may be required to prevent the establishment of germinating weeds. |
| Blackberry (*Rubus fruticosus*) | All States | 700mL or 900mL | 100 or 130mL | Apply from January to May (flowering to leaf fall). Spray plants which are not under stress to thoroughly wet all foliage<br>Use the higher rate for dense, old stands over 2 metre high. Further treatment may be needed to control seedlings and regrowth. Symptoms may be slow to appear and may not be apparent until next season.<br>Tas ONLY- Do not spray bushes bearing mature fruit. |
| Box Thorn (*Lycium ferocissium*) | All States | 500mL or 700mL | 70 or 100mL | Spray to wet all foliage Use the lower rate for young bushes and the higher rate for bigger mature bushes. Do not spray if conditions are hot and dry regrowth and seedling germination may have to be retreated. |
| Crofton Weed (*Eupatorium adenophorum*) | NSW, ACT, Qld only | 350mL | 50mL | Apply to plants with full foliage which are actively growing. Spray to wet all foliage. Seedling germination may have to be retreated. |
| Groundsel Bush (*Baccharis halimifolia*) | Qld, NSW, ACT only | 500mL or 700mL | 70 - 100mL | Apply to actively growing plants using the higher rate for plants over 2 metre tall. Do not spray during summer drought stress conditions or in winter. Spray to wet all foliage. Seedling germination may have to be re-treated. |
| Hawthorn (*Crataegus* spp.) | NSW, ACT, Vic, Tas, WA, SA only | 700 - 900mL | 100 - 130mL | Spray from flowering to leaf fall when plants are actively growing. Use the higher rate for plants over 2 metre tall. Spray to thoroughly wet all foliage. Seedling regrowth may have to be retreated. |
| Lantana (*Lantana camara*) | NSW, Qld only | 700mL | 100mL | Apply to plants with full foliage which are actively growing. Spray to thoroughly wet all foliage and individual plants. Seedling regrowth may have to be retreated. |
| Mistflower (*Eupatorium riparium*) | NSW, ACT, Qld only | 350mL | 50mL | Apply to plants with full foliage which are actively growing. Spray to thoroughly wet all foliage. Seedling regrowth may have to be retreated. |
| Sifton Bush/ Chinese Scrub (*Cassinia arcutata*) | NSW, ACT, Qld only | 700mL or 900mL | 100 or 130mL | Apply to actively growing plants ensuring complete coverage. Seedling regrowth may have to be retreated.<br>For high volume application use the higher rate when bushes are over 1 metre.<br>For Wiper Application: a double pass application is required. Best results are achieved if bushes are less than 1 metre tall and are green at time of application. |
| Sweet Briar (*Rosa rubiginosa*) | NSW, ACT, Vic, Tas, WA, SA only | 1.0L or 1.3L | 160 or 210mL | Apply from late flowering to leaf fall to actively growing plants. Spray to thoroughly wet all foliage Use the higher rate for bushes over 1.5m tall. Seedling regrowth may have to be retreated. |

**AQUATIC WEED CONTROL**

Reduction in effectiveness may result if more than 1/4 of the aboveground portion of the weed is submerged at treatment. Submerging the treated plants following treatment may result in the spray being washed from the plant surface, thus reducing effectiveness. Do not apply this product within 0.5 km of potable water intake in flowing water (e.g. river or stream), or within 0.5 km of a potable water intake in a standing body of water such as a lake, pond or reservoir. Applications to moving bodies of water should be made while traveling upstream wherever possible to prevent concentration of this herbicide in water. When making bankside applications, do not overspray more than 0.5m into open water. Avoid spraying across moving bodies of water where weeds do not exist.

**DO NOT ADD EXTRA SURFACTANT/WETTER, UNLESS IT IS APPROVED IN AQUATIC SITUATIONS.**

When spraying floating weeds, use a low volume, low pressure boom sprayer or sprinkler sprayer. Do not submerge weeds when spraying as this may wash herbicide off the leaves. When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid sudden impact on habitat.

| Weeds Controlled | State | Rate | | | Critical Comments |
|---|---|---|---|---|---|
| | | Boom L/ha | Knapsack mL/15L | Handgun Vol/100L | |
| Alligator Weed | All States | 4.2 | 110mL | 700mL | Apply when actively growing, from Summer through Winter. Floating form only. |
| Brown beetle grass | NSW, ACT only | 2.1 | 55mL | 350mL | Apply to actively growing plants. Do not apply to partially submerged plants. |
| Cumbungi *(Typha spp.)* | All States | 6.3 | 140mL | 900mL | Spray during Summer or Autumn period during the heading stage. Except for Tasmania, Wiper equipment can be used. Refer to information on Application Equipment Section of the label. |
| Paragrass (*Brachiara mutica)* | All States | 6.3 | 140mL | 900mL | Spray at early head stage when plants are in active growth. |
| Phragmites Common Reed *(Phragmites australis)* | All States | 6.3 | 140mL | 900mL | If the Wiper technique is to be used, refer to 'Wiper Equipment' section in this booklet. Spray when plants are getting close to early head stage and actively growing. Spray symptoms may not be observed for a season or more. |
| Rushes *(Juncus spp)* | All States | See Critical Comments | | | Use Wiper technique ensuring a high percentage of green matter is present. Refer to section of this booklet entitled 'Wiper Equipment' for directions for use. |
| Sedge – Tall (*Cyperus gracilis*) | NSW, ACT, Tas, Vic only | | | | Use Wiper technique ensuring a high percentage of green matter is present. Refer to section of this booklet entitled 'Wiper Equipment' for directions for use. |
| Water Couch *(Paspalum distichum)* | All States | 6.3 | 140mL | 900mL | Spray actively growing plants in February/March period. 75% of plants should be visible above the water line at time of spraying. |
| Water Hyacinth | All States | 4.2 to 6.3 | 110mL - 140mL | 700mL to 900mL | Apply when actively growing and at or beyond the early bloom stage of growth. Use the higher rate on dense infestations. |
| Water lettuce | All States | - | 110mL - 140mL | 700mL to 900mL | Best results are obtained from mid-summer through to winter. Use the higher rate on dense infestations. |
| Waterlily, Yellow | All States | 4.2 | 110mL | - | Apply when there is a maximum emergence of floating leaves. Allow 2-3 weeks for symptoms, then retreat any unaffected plants. Use low volume sprayer. |

**GENERAL USES**
**(For All States Unless Specified)**

| Situation | Weeds Controlled | Rate | Critical Comments |
|---|---|---|---|
| **Agricultural areas** | See Weeds Controlled Table for Annual and Perennial Weeds and Brush and Woody Weeds | See Weeds Controlled tables | For the control of weeds listed in 'Weeds Controlled' prior to sowing of any crop. |
| **Domestic areas, Commercial and Industrial Areas, Public Service Areas, Rights of Way** | | 7mL per litre of water | * Ensure weeds are actively growing at time of application.<br>* Complete and uniform coverage is necessary to ensure the best results.<br>* Symptoms may take 3-21 days to appear<br>* NO residual control is provided. |
| **Forestry Situations** | | See Weeds Controlled tables | The product may be used:<br>1. In site preparation before planting.<br>2. Before establishment of nurseries.<br>3. Amongst established trees by using selective wiper equipment, directed or shielded spray. The product must NOT contact foliage or green bark of desirable trees. The wiper should not contact any part of the tree. |
| **Horticultural Crops**<br>Avocado, Bananas, Blueberries, Citrus fruits, Custard Apples, Duboisia, Figs (Dessert), Guava, Kiwifruit, Litchi, Mango, Monstera, Nuts (Almond, Pecan, Macadamia, Pistachio, Walnut), Olives, Paw Paw, Persimmon, Pome Fruit, Stone Fruit, Raspberries, Tea, Vineyards. | See Weeds Controlled Table for Annual and Perennial Weeds and Brush and Woody Weeds | See Weeds Controlled Tables | The product can be used as a shielded or directed spray or using Wiper equipment.<br>* DO NOT apply near trees or vines less than 3 years old unless they are adequately protected from spray and spray drift.<br>* DO NOT allow spray or spray drift to contact bark, leaves, wounds or any other plant parts as severe injury may occur.<br>*** Tea** - Apply a maximum of 2.8L/ha by a shielded spray or a directed off-centre nozzle or 0.35L/100L by directed handgun or knapsack to avoid injury to the crop. |
| **Pasture** | See Weeds Controlled Table for Annual and Perennial Weeds and Brush and Woody Weeds | See Weeds Controlled Tables | The product may be used by the following methods:<br>* Spot application - To remove weeds by spot application within a pasture. This product is non-selective and may damage or kill any plant in the sprayed area. To prevent seedling re-establishment pasture improvement and/or retreatment may be necessary.<br>* Boom application - This product may be used to suppress or kill existing pasture prior to reseeding or establishment of other crops.<br>* Selective application - see Wiper equipment under General Instructions. |
| **Peanuts, Cotton, Soybeans & Sugar Cane**<br><br>(Using Selective Application Equipment Only)<br><br>Qld, NSW only | See Weeds Controlled Table for Annual and Perennial Weeds and Brush and Woody Weeds | See Weeds Controlled Tables | WIPER EQUIPMENT<br>Apply to the weeds growing between the rows or to weeds growing at least 15cm above the crop. DO NOT allow the herbicide to contact the crop or to drip from the applicator as serious crop injury may occur.<br>SHIELDED SPRAYERS (Cotton only)<br>Apply to the weeds growing between the rows using a shielded sprayer. DO NOT apply unless the crop is at least 20cm high. Do not allow herbicide or drift to contact crop. |

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

**WITHHOLDING PERIODS**
**GRAZING:**
**BARLEY: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION**
**ALL OTHER CROPS:NOT REQUIRED WHEN USED AS DIRECTED**
**HARVEST:**
**WHEAT, BARLEY, SORGHUM AND LEGUMES: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION**
**ALL OTHER USES: NOT REQUIRED WHEN USED AS DIRECTED**
**TANK MIXTURES: REFER TO TANK MIX PARTNER LABEL AND FOLLOW ACCORDINGLY**

**EXPORT OF TREATED PRODUCE**
Growers should note that MRL's or import tolerances do not exist in all markets for produce treated with Raze Herbicide. If you are growing produce for export, please check with Sipcam Pacific Australia Pty Ltd for the latest information on MRL's and import tolerance before using Raze Herbicide.

**GENERAL INSTRUCTIONS**
**Mode of Action**
Raze Herbicide is a water-soluble liquid herbicide. The product is non-selective and will control a wide range of emerged annual and perennial weeds. It provides no residual activity and is inactivated once it comes into contact with the soil. The product is absorbed by plant leaves and green stems and is then translocated throughout the plant to the root system. The product inhibits a plant enzyme causing a breakdown in the metabolic pathway leading to death of the plant. Visual effects of product efficacy are gradual wilting, yellowing leading to complete plant browning. For annual weeds effects are usually apparent in 3-7 days and for perennial weeds up to 14-21 days. The time taken for these effects to appear will vary depending on the speed of translocation which will be dependent on climatic conditions such as temperature, moisture conditions etc. Best results are obtained if plants are sprayed when they are actively growing and not under any stress from such factors as disease, waterlogging, insect damage, drought stress etc. Rain 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 Deluge TX Surfactant may improve rainfastness on winter annual weeds. Plants which are covered in dust or which are wet with dew should not be treated.

**Crop Establishment** - Where the product is used to control weeds prior to the establishment of a new crop or pasture it is important that the crop or pasture not be sown until a suitable seed bed is present. Where a light cover of seedling annual weeds has been sprayed, it may be possible to sow after 1 hour of daylight after application. Where a large amount of dead weed matter or trash is present the seed bed needs to be adequately prepared before crop or pasture sowing.

**Mixing and Application** - Raze Herbicide may be applied by boom spray, air, knapsack, handgun or wiper application.

**Boom Application** - DO NOT apply with spray droplets smaller than COARSE to VERY COARSE in accordance with nozzle manufacturer specifications that refer to the ASABE S572 Standard or the British Crop Production Council guideline. Barley: Apply in a spray volume of 80 L/ha. All other crops: Spray volumes of 25 - 100L water /ha are recommended with a fan nozzle at pressures of 240 -280 kPa. Boom height must be set to ensure double overlap of spray patterns at the top of the weed canopy.

**Wiper Equipment** - (e.g. ropewick, canvas, carpet or felt applicators) may be used to apply the product in the situations as per the directions for use table. Weeds should be at least 15cm above the crop and the wiper equipment should be operated at least 10cm above the crop. Best results are obtained with lower speeds of application (do not exceed 8 kph) and where two applications are made in opposite directions, i.e. double pass. Where herbicide does not contact foliage (due to different levels of foliage) results may not be satisfactory and re-treatment may be required. Do not store a mixed solution for more than 2 days.
Rate: 700mL of product to 2 litres of water.

**Aerial Equipment**
Raze Herbicide 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 applications, up to a maximum rate of 2.6 L/ha where specified by this 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 not less than 20 L/ha and using settings to produce a COARSE to VERY COARSE spray quality (as defined by ASAE S572). In multiple product tank mixes a minimum water volume of 50 L/ha is recommended and local advice should be sought. Correct mixing order is important. 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 striping under light wind conditions and/or application to tall, dense targets e.g. pre-harvest application, treatments in heavy crop stubble. Thoroughly wash aircraft after each day of spraying to remove herbicide residues.
When applying this product by helicopter in combination with Associate for the control of Blackberry and Pine wildling suppression in forestry and other specific situations, the higher rate of Raze Herbicide may be applied. Refer to the Associate label for specific recommendations and application recommendations.

**Application on Hilly Terrain**
For aerial application on hilly terrain, increase water volume to 30–80 L/ha and use a COARSE spray quality to optimise spray coverage.

**Air Temperature and Relative Humidity**
DO NOT apply Raze Herbicide by aircraft at temperatures above 30°C. Increase spray output to at least 30 L/ha when temperatures rise above 25°C. Avoid application when relative humidity falls below 35%.

**Wind Speed and Inversions**
- **DO NOT** apply when wind speed is less than 3 or more than 20 kilometres per hour (ground application) as measured at the application site.
- **DO NOT** apply when wind speed is less than 3 or more than 15 kilometres per hour (aerial application) as measured at the application site.
- You must check, determine and record the weather conditions immediately prior to, and immediately after the spray application is made.
- Record
    - Temperatures
    - Relative Humidity
    - Delta T
    - Wind speed
    - Is there a temperature inversion?

Night Spraying - Extra care is required to ensure that inversion conditions are not present. Use smoke generator to determine wind direction and presence of inversion conditions.
Application should be avoided in wind speeds below 3 km per hour (1.5 knots) due to variable wind direction and high inversion potential. **DO NOT** apply if wind is blowing towards a sensitive crop or situation and off-target damage cannot be avoided.

**Environmental Factors**
- 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.
- Rain within 1 hour of application which causes runoff 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 Deluge TX Surfactant may improve rainfastness on Winter annual weeds.
- Apply treatments to weeds which 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.

DO NOT use in intensive horticultural areas.

Use recommended rates specified in this label up to a maximum limit of 2.8 L/ha.

**Surfactant**
The addition of surfactant may improve weed control where water rates are high or product rates are low. Suggested surfactant rates are 200mL/100L of 1000g/L non-ionic surfactant or 250-500mL of 700g/L surfactant. Do not add spraying oils, agricultural chemicals or any other material except as directed on the label.

**Mixing** - When the product is to be mixed with water it is important that clean water be used. Dirty water or hard water containing calcium salts may reduce the product's effectiveness. The following procedure for mixing should be followed:
1. Ensure spray tank is clean and that previous chemicals used are washed from the tank.
2. Half fill the tank with clean water, add the required amount of Raze Herbicide.
3. Add the rest of the water.
4. Add surfactant last.

**COMPATIBILITY**
The product may be mixed with a variety of products to enhance weed control, to broaden the spectrum of weeds and to add residual control.
Refer to the 'Directions for Use' Section for detailed information on the tank mix situations.
**Herbicides:** Atrazine – flowable or granular (see additives above – do not apply the tank mix for control of Barnyard grass or Liverseed grass), Simazine - flowable or granular, Diuron - flowable or granular, Dicamba,

2,4-D Ester, 2,4-D Amine 500, 2,4-D Amine 625, Express*, Redeem 600, chlorsulfuron, metsulfuron, Yield*, Stomp*, Triasulfuron, LVE MCPA, Govern, trifluralin.
Govern - The addition of Govern at 75mL/ha to recommended rates of this product prior to planting Wheat or Barley will improve knockdown and increase the speed at which treated weeds develop visible symptoms of phytotoxicity.
**Insecticides:** chlorpyrifos, dimethoate, fenitrothion, omethoate.

**TANK MIXTURES - ADJUVANTS**
**Soyal Phospholipids / Propionic Acid (Nufarm LI700 Surfactant)**
At rates of 300mL–500mL per 100 L, LI700 may modify the droplet spectrum produced by CP and flat fan nozzles. This may reduce the proportion of FINE droplets produced by these nozzles. LI700 can be used to reduce pH in hard water situations, assisting uptake.

**Octyl Phenol Ethoxylate** (**Deluge TX Surfactant)**
Deluge TX Surfactant is recommended for the control of silver grass and annual ryegrass in late Winter and Spring. Deluge TX Surfactant is not a general-purpose surfactant and should only be used where recommended.
Rate: 200mL/100 L spray solution.

**Organosilicone (Nufarm Pulse Penetrant)**
Pulse Penetrant is recommended for the control of Bracken and many woody weeds. Rate: 200–500mL/100 L spray solution.

**Crystalline ammonium sulphate (980 g/kg)**
A high-grade spray quality crystalline ammonium sulphate (980 g/kg) may be used as an adjuvant to alleviate the adverse effects of high levels of calcium, magnesium and bicarbonate ions in water.
Rate: 1 kg/100 L spray solution.

**DO NOT** use adjuvants, surfactants or other pesticides other than those recommended on this label.
**DO NOT** use crop oil except when tank mixing with a herbicide for which an oil adjuvant is recommended to be used. The addition of a crop oil can reduce control of some grass weeds, particularly in Summer.

**Equipment Maintenance and Usage**
Raze Herbicide should ONLY be stored, mixed or applied in plastic or plastic lined, stainless steel, aluminium, copper, brass or fibreglass containers. The product and spray solutions react with galvanised steel and unlined steel tanks and containers to form hydrogen gas which may form a highly combustible gas mixture. This gas could cause an explosion if ignited by an open flame. All application equipment including tanks, nozzles, hoses, aircraft and aircraft landing gear, should be thoroughly washed after use to prevent corrosion.

**RESISTANT WEEDS WARNING**

| GROUP | 9 | HERBICIDE |
|---|---|---|

Raze Herbicide is a member of the Glycine group of herbicides. Raze Herbicide has the Inhibitor of EPSP synthase mode of action. For weed resistance management Raze Herbicide is a Group 9 Herbicide. Some naturally occurring weed biotypes resistant to Raze Herbicide and other Group 9 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 Raze Herbicide or any other Group 9 herbicide. Since the occurrence of resistant weeds is difficult to detect prior to use, Sipcam Pacific Australia Pty Ltd accepts no liability for any losses that may result from the failure of Raze Herbicide to control resistant weeds.

**PRECAUTION**
DO NOT store, mix or apply the product or spray solutions in unlined steel or galvanised containers as a highly flammable gas may form. Use stainless steel, brass, copper, aluminium, plastic or plastic lined, fibreglass containers or spray tanks.

**PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS**
This product is non-selective and may severely injure or kill desirable plants should the product contact the foliage, green stems or fruit of such plants. DO NOT spray under meteorological conditions or under spraying conditions which could be expected to cause spray to drift onto nearby susceptible plants, adjacent crops, crop lands or pastures. DO NOT use prior to transplanting tomato seedlings.

**PROTECTION OF LIVESTOCK**
There is no withholding period for this product, but removal of stock may be necessary to achieve efficacy. It is recommended that stock be removed from the area to be treated 1 day after treatment of annual weeds and 7 days after treatment of perennial weeds. Certain plants (e.g. Soursob, Variegated Thistle) may be naturally toxic to stock. Where known toxic plants are present, do not allow stock to graze until complete browning of treated plants has occurred.

**PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**
DO NOT contaminate dams, rivers or streams with the chemical or used containers. When controlling weeds near water, refer to label directions to minimise the entry of spray into the 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-rinse containers before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

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

**SAFETY DIRECTIONS**
Product will irritate the eyes and skin. Avoid contact with eyes and skin. When preparing product for use, wear elbow-length PVC gloves and face shield or goggles. When using controlled droplet applicator, wear protective waterproof clothing and impervious footwear. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, face shield or goggles and contaminated clothing.

**FIRST AID INSTRUCTIONS**
If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

**SAFETY DATA SHEET**
For further information, refer to the Safety Data Sheet (SDS), which is available from the supplier or from our web site, www.sipcam.com.au

**NOTICE TO BUYER**
This product must be used in accordance with the directions for use. Where this product is not a good of a kind ordinarily acquired for personal, domestic or household use or consumption under the Australian Consumer Law, Sipcam's liability for any direct, indirect or consequential loss which you incur, including, without limitation, loss or damage to crop, loss of equipment, property damage, personal injury or death is limited, at Sipcam's option, to the replacement of the product or the supply of an equivalent product. By opening this package, you agree to be bound by these terms. If you do not agree to these terms, please return the entire unopened package intact to Sipcam or the place in which you purchased this product for a full refund.

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