

# POISON

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

## Zulu<sup>®</sup> XT

### Herbicide

ACTIVE CONSTITUENT:

## 720 g/L 2,4-D

present as the ISOPROPYLAMINE and the DIMETHYLAMINE SALTS

Also contains: 20 g/L POLYETHANOXY (15) TALLOW AMINE

GROUP

HERBICIDE

Crops: Cereal Crops, Fallow, Pastures, Peanuts, Sugarcane and in Non-Agricultural Areas

Controls: Broadleaf Weeds as specified in the Directions for Use Table.

ZULU<sup>®</sup> XT is a PHENOXY HERBICIDE that can cause severe damage to native vegetation and susceptible crops such as Cotton, Grapes, Tomatoes, Oilseed Crops and Ornamentals

Formulation type

Soluble  
Concentrate

SL



## ADAMA

adama.com

CONTENTS: 5 L - 1000 L

#### DIRECTIONS FOR USE RESTRAINTS

##### SPRAY DRIFT RESTRAINTS

**THIS IS A PHENOXY HERBICIDE THAT CAN CAUSE SEVERE DAMAGE TO NATIVE VEGETATION AND SUSCEPTIBLE CROPS SUCH AS COTTON, GRAPES, TOMATOES, OILSEED CROPS AND ORNAMENTALS.**

**DO NOT** apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone tables below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

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

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

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

##### Recognising a surface temperature inversion

A surface temperature inversion is likely to be present if:

- Mist, fog, dew or a frost have occurred
  - Smoke or dust hangs in the air and moves sideways, just above the ground surface
  - Cumulus clouds that have built up during the day collapse towards evening
  - Wind speed is constantly less than 11 km/hr in the evening and overnight
  - Cool off-slope breezes develop during the evening and overnight
  - Distant sounds become clearer and easier to hear
  - Aromas become more distinct during the evening than during the day.
- Information from GRDC Fact Sheet: 'Surface Temperature Inversions and Spraying', Jul 2014.

##### Spray timing

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

**DO NOT** spray if rain seems likely within 6 hours.

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

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

##### Monitoring and record keeping

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

## ADAMA

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

**ADVISORY FOR BOOM SPRAYER USE IN CEREALS, FALLOW AND PASTURE 3 OCTOBER TO 15 APRIL**  
 USE IN CEREALS, FALLOW AND PASTURES DURING THE PERIOD **3 OCTOBER TO 15 APRIL**, IT IS ADVISED TO:- USE NOZZLES THAT PRODUCE **EXTREMELY COARSE (XC) TO ULTRA COARSE (UC) DROPLETS**.  
 USE HIGHER WATER RATES PER HA, TO GIVE BETTER EFFICACY.  
 USE SLOWER APPLICATION SPEEDS TO ALLOW OPERATORS TO LOWER BOOM HEIGHTS.  
 INCREASING DROPLET SIZE AND WATER RATES WHILE REDUCING APPLICATION SPEED WILL ASSIST IN MITIGATING OFF TARGET INVERSION DRIFT DURING SUMMER SPRAYING. EXTREMELY COARSE DROPLETS WILL PRODUCE <3% DRIFTABLE DROPLETS.

#### BOOM SPRAYERS (ground application)

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

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

#### BUFFER ZONES FOR BOOM SPRAYERS:

Application Rate (/ha)	Downwind Mandatory No Spray Zone	
	Aquatic	Terrestrial
Dryland cropping: Winter cereals and fallows		
Up to 1.1 L	10 metres	10 metres
Up to 1.2 L	15 metres	15 metres
Up to 1.5 L	20 metres	20 metres
Dryland cropping: Summer cereals		
Up to 0.8 L	5 metres	0 metres
Tropical & subtropical uses: Sugarcane		
Up to 1.5 L	20 metres	20 metres
Up to 3.0 L	35 metres	30 metres
Tropical & subtropical uses: Peanuts		
Up to 3.2 L	35 metres	30 metres
Pasture		
Up to 2.8 L	30 metres	30 metres
Up to 3.8 L	40 metres	35 metres
Up to 4.6 L	45 metres	45 metres

#### AERIAL APPLICATION

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

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

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

Application Rate (/ha)	Downwind Mandatory No Spray Zone			
	Fixed Wing		Helicopter	
	Aquatic	Terrestrial	Aquatic	Terrestrial
Dryland cropping: Winter cereals and fallows				
Up to 1.0 L	75 metres	70 metres	70 metres	70 metres
Up to 1.2 L	80 metres	80 metres	75 metres	75 metres
Up to 1.5 L	95 metres	90 metres	90 metres	85 metres
Dryland cropping: Summer cereals				
Up to 0.8 L	60 metres	60 metres	60 metres	55 metres
Tropical & subtropical uses: Sugarcane				
Up to 3.0 L	180 metres	170 metres	150 metres	140 metres
Tropical & subtropical uses: Peanuts				
Up to 3.1 L	180 metres	170 metres	150 metres	140 metres
Pastures				
Up to 2.8 L, wind speed range at time of application from 3 to 7 kilometres per hour	160 metres	140 metres	90 metres	85 metres
Up to 2.8 L, wind speed range at time of application from 7 to 14 kilometres per hour	160 metres	150 metres	140 metres	130 metres
Up to 3.8 L, wind speed range at time of application from 3 to 7 kilometres per hour	250 metres	250 metres	150 metres	140 metres
Up to 3.8 L, wind speed range at time of application from 7 to 14 kilometres per hour	250 metres	250 metres	180 metres	170 metres
Up to 4.6 L, wind speed range at time of application from 3 to 7 kilometres per hour	600 metres	575 metres	350 metres	350 metres
Up to 4.6 L, wind speed range at time of application from 7 to 14 kilometres per hour	675 metres	650 metres	375 metres	350 metres

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

Application Rate (/ha)	Downwind Mandatory No Spray Zone			
	Fixed Wing		Helicopter	
	Aquatic	Terrestrial	Aquatic	Terrestrial
Dryland cropping: Winter cereals and fallows				
Up to 1.0 L	130 metres	130 metres	120 metres	110 metres
Up to 1.2 L	150 metres	150 metres	130 metres	120 metres
Up to 1.5 L	180 metres	170 metres	140 metres	140 metres
Dryland cropping: Summer cereals				
Up to 0.8 L	110 metres	110 metres	110 metres	95 metres
Tropical & subtropical uses: Sugarcane				
Up to 3 L	425 metres	400 metres	250 metres	225 metres
Tropical & subtropical uses: Peanuts				
Up to 3.1 L	425 metres	400 metres	250 metres	225 metres
Pastures				
Up to 2.8 L, wind speed range at time of application from 3 to 7 kilometres per hour	375 metres	350 metres	190 metres	180 metres
Up to 2.8 L, wind speed range at time of application from 7 to 14 kilometres per hour	375 metres	350 metres	220 metres	210 metres
Up to 3.8 L, wind speed range at time of application from 3 to 7 kilometres per hour	500 metres	475 metres	300 metres	275 metres
Up to 3.8 L, wind speed range at time of application from 7 to 14 kilometres per hour	550 metres	525 metres	300 metres	300 metres
Up to 4.6 L, wind speed range at time of application from 3 to 7 kilometres per hour	600 metres	575 metres	350 metres	350 metres
Up to 4.6 L, wind speed range at time of application from 7 to 14 kilometres per hour	675 metres	650 metres	375 metres	350 metres

# 1. FIELD CROPS

REFER TO SECTIONS "SPRAY DRIFT RESTRAINTS" AND "SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT" BEFORE APPLICATION

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS
Wheat Barley Cereal rye, Triticale	Refer to Weed Table	All States	485 mL - 1.46 L/ha	Lower rate (485 mL/ha); Apply from mid-tillering (Z15/Z22 crop growth stage). Higher rates (above 485 mL/ha): Apply from first node (Z31) to booting (Z43) crop growth stage. DO NOT spray if Lucerne is present. DO NOT apply to undersown medics. The wheat varieties Wyalkatchem and Ellison as well as the oat varieties Yallara, Brusher, and Mitika, have shown increased sensitivity (potential grain yield loss) to high use rates
Oats			485 mL - 1.2 L/ha	
Wheat, Barley Cereal rye, triticale	Flaxleaf fleabane ( <i>Conyza bonariensis</i> )	All States	1.46 L/ha	Apply up to 6 leaf rosette stage. Apply in 70-100L water/ha.
Cereals: Wheat, Barley, Oats, Triticale, Cereal rye	Volunteer canola ( <i>Brassica napus</i> ) including Roundup Ready* varieties	All States	875 mL/ha	WEED STAGE: Up to 4 leaf. CROP STAGE: 5 leaf to fully tillered.
			1.22 L/ha (except oats) 1.12 L/ha (oats only)	WEED STAGE: Up to 6 leaf. CROP STAGE: 5 leaf to fully tillered.
Sugar cane (Q80, Q96 and H56 varieties)	Bellvine	Qld, NSW only	245 mL / 100 L water	Apply in Spring, using directed spray.
	Morning glory		490 - 955 mL/ha	Apply in Summer using high clearance tractor.
	Pink Convolvulus, Star of Bethlehem		955 mL/ha	Apply in Autumn by aircraft.
	Bindi-eye (Star burr), Blue top, Cobbler's pegs, Fleabanes, Jute, Leucas, Needle burr, Spear thistle, Water primrose, Ipomea vines, Convolvulus vines	Qld only	1.5 - 3 L/ha	Add 100 mL Wetspray® 1000 per 100L spray mixture. Agitate well. Refer to local SRA representative for further information on local variety susceptibility.
	Chinese mint, Blue snakeweed		3 L/ha	
Peanuts	Broadleaf Weeds except Noogoora Burr, Grasses except Mossman Burr		1.4 L or 3.1 L/ha	LOWER RATE: Apply as BAND SPRAY as soon as possible after planting in a 55 cm band. HIGHER RATE: Apply as OVERALL SPRAY after planting and before crop emergence. Some crop damage may occur if heavy rain falls between application and crop emergence
Harvest Aid or Salvage Spray - Winter Cereals - Maize and Sorghum	Desiccate broadleaf weeds	All States	1 - 1.5 L/ha	Apply after firm dough stage

## 2. CONSERVATION TILLAGE

### REFER TO SECTIONS "SPRAY DRIFT RESTRAINTS" AND "SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT" BEFORE APPLICATION

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS
Preparatory spray for Fallows and Seedbeds or prior to sowing the following Crops: Balansa clover, Barley, Chickpeas, Cotton, Faba beans, Field peas, Lentils, Linseed, Lucerne, Lupins, Narbon beans, Navy beans, Oats, Perennial ryegrass, Persian clover, Phalaris, Rice, Safflower, Sorghum, Soybean, Subterranean clover, Sunflower, Triticale, Vetch, Wheat, White clover	Fumitory (white), Ball mustard, Indian hedge mustard, Common sowthistle, Turnip weed, Wild turnip, Wild radish.	All States	275 - 795 mL/ha plus Wipe-Out® 450 or other compatible glyphosate formulations at recommended label rates	<b>RATE SELECTION:</b> Use the lower rate for seedling broadleaf weeds and increase to the higher rate for broadleaf weeds more than 10 cm diameter/high. Always add glyphosate at recommended label rates. At the time of application, all weeds must be actively growing and not under stress from low moisture, frost, cold, disease or waterlogging. If grazing has occurred allow re-growth to 6-8 cm before spraying and use higher rate. Always add either a non-ionic surfactant (e.g. Wetspray®) or the acidifying surfactant Raizer® 700 in accordance with the label directions on the glyphosate product. Use Raizer® 700 with glyphosate if insecticides will be included in the tank mixture or if faster brownout of weeds is required.
	Seedlings of: Australian bindweed, Bellvine, Caltrop, New Zealand spinach, Raspweed	NSW, ACT, Qld only		
	Ageratum (Blue top), Dock, Volunteer lupins, Volunteer peas, Volunteer Sunflowers, Charlock, Fumitory (Red), Medic, Paterson's curse, Prickly lettuce (Wild lettuce), Saffron thistle, Spear thistle, Variegated thistle	All states	380 - 500 mL/ha plus Wipe-Out® 450 or other compatible glyphosate formulations at recommended label rates	
	Bathurst burr, Blackberry nightshade, Californian burr, Horehound seedlings, Lincoln weed seedlings, Marshmallow seedlings, Sorrel seedlings, Thornapple, Volunteer vetch, Volunteer safflower, Common ice-plant, Storksbill/Erodium seedlings, Ivyleaf speedwell, Melilotus, Shepherd's purse, Skeleton weed (Suppression only), Ward's weed, Wireweed seedlings (Hogweed), White clover, Sub. clover		500 - 725 mL/ha plus Wipe-Out® 450 or other compatible glyphosate formulations at recommended label rates	
	Amaranth, Apple of Peru, Mexican poppy, Annual ground cherry, Bladder ketmia, Fat hen, Melons, Native Rosella, Noogoora burr, Potato weed, Cow vine, Yellow vine	NSW, ACT, Qld only	725 mL - 1.1 L/ha plus Wipe-Out® 450 or other compatible glyphosate formulations at recommended label rates	
	Volunteer canola ( <i>Brassica napus</i> ) including Roundup Ready <sup>†</sup> varieties	All States	855 mL/ha or 1.2 L/ha plus Wipe-Out® 450 or other compatible glyphosate formulations at recommended label rates	
	Flaxleaf fleabane ( <i>Conyza bonariensis</i> )		630 mL - 1.1 L/ha plus a minimum of 1.5 L/ha Wipe-Out® 450 or other compatible glyphosate formulations at recommended label rates	
PASTURES: Conservation Tillage - Direct Drilling, Surface Sowing or Fallow Maintenance	Charlock, Mustards, Shepherd's purse, Saffron, Slender, Spear & Variegated thistles, Turnip weed, Wild radish, Wild turnip	All States	460 mL - 1.4 L/ha	Apply to actively growing young weeds before sowing. Observe plant back periods given in the table on this leaflet.
	Clover Sorrel		960 mL/ha plus 280 - 400 mL/ha Cutlass® 500	Apply to actively growing plants in Autumn. DO NOT sow pasture seed for at least 30 days after application.
Fallow, Stubble Spray prior to direct drilling or sowing - Winter Cereals, Grain legumes (Peanuts - Qld only) and Canola	Refer Weed Table		200 mL - 1.5 L/ha	Observe the plant back periods given in the table on this leaflet. Can be mixed with Tackle®, Spraytop® 250 SL or Spray & Sow where grasses are present. Select appropriate rate from the Weed Table. For skeleton weed, spraying should only be done 6-8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.
	Volunteer canola ( <i>Brassica napus</i> ) including Roundup Ready <sup>†</sup> varieties		875 mL/ha	Apply at this rate up to 4 leaf canola stage.
			1.22 L/ha	Apply at this rate up to 6 leaf canola stage.

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

REFER TO SECTIONS "SPRAY DRIFT RESTRAINTS" AND "SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT" BEFORE APPLICATION

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS
Fallow or Pastoral land	Lippia ( <i>Phyla canescens</i> )	All States	1.75 - 3.5 L/ha plus 1% crop oil	Apply when Lippia is in fresh conditions, mid-flower and has good soil moisture. A sequential application (applied twice over Summer; 2-3 months apart) will provide the highest level of control. DO NOT apply in dry conditions. DO NOT apply more than two applications.
Pastures and Non- Agricultural	Refer Weed Table		485 mL - 1.5 L/ha	Pasture legumes including lucerne, clovers and medics may be damaged unless well protected by grasses. Spot spraying is preferred.
	Galvanised burr		280 mL / 100 L water	Apply to young actively growing weeds. Ensure thorough and even coverage of plants. <b>Note:</b> Treated plants need to be burnt to destroy seeds.
	Amsinckia, Docks, Bindweed, Caltrop, Flatweed, Spear thistle, Capeweed, Saffron thistle, Mustard, Wild radish, Wild turnip, Annual thistles, Paterson's curse, Heliotrope, Ragwort, Three cornered Jack (Double gee, Spiny emex)		960 mL - 2.1 L/ha	For pastures not containing legumes. Only seedling Docks, Spear thistle and Saffron thistle will be controlled. <b>SUMMER WEEDS:</b> Use low rate for seedlings, 1.4 - 2.1 L/ha for larger plants. Stock poisoning may occur when grazed after spraying if large amounts present, particularly Heliotrope. <b>WINTER WEEDS:</b> Use low rate for seedlings, 1.4 - 2.1 L/ha for larger plants. If stock present, use spray/grazing rates.
	Afghan (camel) melons, Paddy melons		1.4 L/ha plus 1% crop oil	Spray when plants are young and actively growing. Larger and older plants will need the addition of Safari® for adequate control.
	Prickly saltwort (Roly poly)		1.4 L/ha	Spray when plants are small.
	Stinkwort		1.4 - 2.8 L/ha plus surfactant	Best results are obtained when plants are small. Use high rate on larger plants.
	Dove weed		2.8 L/ha	Spray after good emergence of seedlings.
	Capeweed		1.5 - 2.45 L/ha	Spray seedlings to rosette stage.
	Horehound		2 - 2.8 L/ha	Spray seedlings. Suppression only. Good coverage required.
	Paterson's curse		1.5 - 1.95 L/ha	Spray rosettes or before plants have 10 leaves. Later stages harder to kill.
	Storkbill/Erodium		1.45 - 2.8 L/ha	Spray seedlings to young rosettes.
	Thornapple		1.45 - 2.1 L/ha	Spray seedlings only.
Pastures, Rights of Way and Industrial	Boxthorn, Boneseed, Hawthorn		68 mL / 10 L water	Spot Spraying: For Boneseed only, thoroughly wet plants or seedlings.
			Undiluted	Cut stump: Apply or paint undiluted ZULU® XT to freshly cut stumps
	Groundsel		830 mL / 15 L water	<b>MISTING:</b> Lightly wet plants.
			210 mL / 15 L water	<b>CUT STUMP:</b> Swab the cut stump immediately. Apply by a pouring can or Knapsack spray.
			2.5 - 3.8 L/ha	<b>AERIAL APPLICATION:</b> Spray when Groundsel is actively growing.
	Lantana		280 mL / 100 L water	Use a very coarse spray with sufficient pressure to penetrate canopy and wet stems as well as foliage. Spray at the end of a wet Summer (March to May). Defoliation should occur but respraying of new growth will be necessary in following Autumn. Broadcast grass seed and keep stock off following Summer to allow the pasture to establish. Damage may result to pasture legumes.
	Mother of millions		350 mL / 100 L water	Hand gun and Knapsack only. A thorough coverage of leaves and plantlets is necessary. Use Wetspray® 1000 at the rate of 1 mL of surfactant per 1 L of mixture.
	Noogoora burr, Weir vine (Ipomea), Scarlet pimpernel (seedlings only), White eye (Mexican clover)		140 mL / 100 L water	In all cases apply to young, actively growing weeds, ensuring thorough coverage.
	Annual and Perennial Pigweed, Artichoke thistle, Bathurst burr, Billygoat weed, Blue snakeweed, Burr medic, Clockweed <sup>^</sup> , Fleabanes, Galvanised burr, Hemlock, Hoary cress <sup>+</sup> , Kyalinga weed (Whisker grass), Knobweed, Milky cotton bushes, Parthenium weed, Paterson's curse, Saffron thistle, Star burr, Thornapple, Variegated thistle <sup>^</sup>		280 mL / 100 L water	In all cases apply to young, actively growing weeds, ensuring thorough coverage. <sup>^</sup> Spray rosette stage. <sup>+</sup> Repeat spraying necessary.
	Rubber vine		140 mL / 10 L water	Apply to freshly cut stump.
	Sesbania pea		485 - 780 mL / ha	
	Water Hyacinth		3.0 - 4.6 L/ha	Apply to 2200 – 3300 L water/ha
	Wild tobacco tree		210 mL / 15 L water	<b>Cut Stump Treatment:</b> Swab cut stump within 1 hour of cutting. Apply by pouring can or knapsack sprayer.

SITUATION & CROP	WEEDS	STATE	RATE	CRITICAL COMMENTS
Pastures – Spray Graze Techniques				<b>^PRECAUTION.</b> An increased quantity of poisonous plants may be eaten by stock using Spray-Graze e.g. Caltrop, Capeweed, Paterson's curse, Variegated thistle and deaths could result from causes such as nitrate poisoning. With Paterson's curse, preferably graze stock soon destined for slaughter and avoid extended periods of grazing. Avoid grazing with young or breeding stock. DO NOT graze horses or pigs on Paterson's curse. Legume species (sub clovers, medics) may be damaged at the higher rate range. Refer to your local Adama representative for further information.
	Amsinckia, Annual Thistles, Caltrop Capeweed, Charlock, Double gee, Erodium, Geranium, Mustards, Paterson's curse, Shepherd's curse, Slender thistle, Turnip weed, Wild turnip, Wild radish	All States	245 mL - 955 mL/ha	Apply from 6 weeks after opening rains in Autumn until the end of August. Seven days after spraying stock paddock at 4-5 times normal rate, preferably with sheep (cattle are less effective). Maintain this level of grazing for 6 weeks or until pasture shows signs of over grazing, but before survival of desirable pasture species is threatened. Then return to normal stocking levels. Use high stocking rates in following Spring to prevent weeds from flowering. Repeat treatments may be required for 2-3 years for complete control.
	Spear or Variegated thistle, Saffron thistle		520 mL - 1 L/ha	Apply to Saffron thistle at the end of September when plants are running up to flower. Sub. clovers may be damaged at this rate and use is not recommended for all Medic pastures.
	Melons		1.45 L/ha plus 1% crop oil	Heavy stocking on young plants sprayed with 695 mL/ha provides effective control.
	Docks		955 mL/ha	Apply in September only and follow other recommendations above.

#### 4. SPOT SPRAYING

REFER TO SECTIONS "SPRAY DRIFT RESTRAINTS" AND "SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT" BEFORE APPLICATION

SITUATION & CROP	WEEDS CONTROLLED	STATE	MIXING RATES / COMMENTS
High Volume Spraying	Refer to Weed Table for list of weeds controlled.	All States	485 mL / 100 L Apply 1000L spray volume/ha
Knapsack Application			4.8 mL / L

#### 5. OPTICAL SPOT SPRAY TECHNOLOGIES

**Note:** Calibrate the sprayer to spray the equivalent of 100 L/ha.

For weed cover between 0% and 30% only. If percentage weed cover exceeds 30% use approved boom spray rates.

REFER TO SECTIONS "SPRAY DRIFT RESTRAINTS" AND "SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT" BEFORE APPLICATION

SITUATION & CROP	WEEDS	RATE	CRITICAL COMMENTS
Fallow	Fleabane, Sowthistle, Yellow vine (Caltrop)	3.9 - 7.8 L / 100 L	Apply to rosette to flowering plants. Use higher rate on late flowering/mature plants or plants under moisture stress.

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION. IN TASMANIA, THIS PRODUCT MAY ONLY BE USED FROM 15 APRIL TO 15 SEPTEMBER UNLESS OTHERWISE PERMITTED BY THE REGISTRAR OF PESTICIDES.**

#### WITHHOLDING PERIODS

PASTURE, CEREAL CROPS:

HARVEST WITHHOLDING PERIOD:

**DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.**

**NOT REQUIRED WHEN USED AS DIRECTED.**

#### WEEDS TABLE

**NOTE:** Listing of weeds and rates where weeds are to be sprayed in a crop or pasture.

Refer to the spot spraying section for rates where weeds only are present, or when spot-spraying in a crop or pasture

Weeds	Application Rate	Critical Comments
<i>Amaranthus</i> spp.	485 - 955 mL/ha	Spray young plants.
Amsinckia	955 mL/ha	
Apple of Peru	485 mL - 955 mL/ha	Spray young plants. Susceptible when young.
Bathurst burr	695 mL - 1.45 L/ha	Spray seedlings only.
Bellvine	1.45 L/ha	Spray before seeding. Advanced stages susceptible.
Bindweed	955 mL/ha	
Blackberry nightshade	485 - 955 mL/ha	
Blackeyed Susan	1.45 L/ha	Apply at pre-flowering, preferably young stages.
Blue snakeweed	1.45 L/ha	Spray seedlings at young stages only.
California burr	695 - 955 mL/ha	Spray seedlings only.
Cape tulip	560 mL - 1.1 L/ha	Low rate for cormils only.
Capeweed	955 mL - 1.45 L/ha#	Spray seedlings to rosette stage. #Rate for use in crop only. Refer to pastures section for pasture use rate.
Caltrop	695 mL - 1.45 L/ha	Moderately susceptible.
Charlock	485 mL - 1.2 L/ha	Spray at rosette stage.
Clover	1.1 L/ha	
Cobbler's pegs	1.45 L/ha	Apply at pre-flowering, preferably young stages.
Common ice plant	955 mL/ha	
Common sida	1.45 L/ha	Spray seedling or young stages only.
Common sowthistle	1.2 - 1.45 L/ha	Apply at pre-flowering, preferably young stages.
Docks	955 mL - 1.2 L/ha	Spray at multiple leaf stage. Effective only on seedlings.
Doveweed	955 mL/ha	
Fat hen	485 mL - 1.45 L/ha	Spray pre-flowering.
Flannel weed	1.45 L/ha	Spray seedling or young stages only.
Flat weed	955 mL/ha	
Fumitory - red	1.45 L/ha	
Fumitory - white	485 - 695 mL/ha	Spray at multiple leaf stage.
Heliotrope	955 mL/ha	
Hexham scent or Melilotus	955 mL - 1.45 L/ha	Spray multiple leaf stage before seeding.
Hoary cress	780 mL - 1.45 L/ha	Spray rosettes and pre-flowering.

Weeds	Application Rate	Critical Comments
Hogweed/Wireweed	1.2 L/ha	Spray at multiple leaf stage (Vic). Spray at seedling and young plant stage (Qld).
Horehound	1.2 - 1.45 L/ha*	Spray seedlings. Suppression only. Good coverage required. *Rate for use in crop only. Refer to pastures section for pasture use rate.
Indian hedge mustard	955 mL - 1.2 L/ha	
Khaki weed	955 mL - 1.45 L/ha	Spray seedlings only.
Lincoln weed	1.45 L/ha	Spray early rosettes.
London rocket	955 mL/ha	
Lupins	695 mL - 1.45 L/ha	
Matricaria	695 mL/ha	
Melons – Camel (Afghan), paddy	485 mL - 1.45 L/ha	Add 1% crop oil. Seedlings only - add Invader in fallow situations only for reliable results on larger weeds.
Mexican poppy	1.2 L/ha	Spray seedlings – plants become more resistant with age.
Mintweed	780 - 955 mL/ha	Spray seedlings – resistant in later stages.
Morning glory	1.45 L/ha	Spray at seedling to flowering stage.
Mustards	195 mL - 1.2 L/ha	Spray at 2-4 leaf up to rosette stage.
Needle burr	1.45 L/ha	Apply at pre-flowering, preferably young stages.
New Zealand spinach	955 mL - 1.45 L/ha	
Noogoora burr	695 mL - 955 mL/ha	Spray seedlings only.
Paterson's curse	955 mL - 1.45 L/ha#	Spray rosettes or before plants have 10 leaves. Later stages harder to kill. #Rate for use in crop only. Refer to pastures section for pasture use rate.
Pinkburr (Pink flowered burr)	1.45 L/ha	Spray seedling or young stages only.
Potato weed	485 - 955 mL/ha	
Radish	955 mL/ha	
Ragwort	955 mL - 1.45 L/ha	Spray up to early rosette stage.
Rapistrum	955 mL/ha	
Rough poppy	955 mL/ha	
Safflower	485 - 955 mL/ha	
Shepherd's purse	955 mL - 1.45 L/ha	Spray young rosettes.
Siratro (Purple bean)	1.45 L/ha	Spray seedling or young stages only.
Skeleton weed	955 mL - 1.45 L/ha	Spray rosettes before aerial growth commences.
Sorrel	1.2 - 1.45 L/ha	Only moderately susceptible.
Speedwell - Ivy leaf	955 mL/ha	
Spinyhead sida	1.45 L/ha	Spray seeding or young stages only.
Starburr	1.45 L/ha	Spray before seeding, advanced stages susceptible.
Spiny emex	1.2 L/ha	Only young plants are susceptible.
Star of Bethlehem (Cupid's flower)	1.45 L/ha	Spray before seeding, advanced stages susceptible.
Stinkwort	695 mL - 1.2 L/ha	
Storkbill/Erodium	1.2 L/ha#	Spray seedlings to young rosettes. #Rate for use in crop only. Refer to pastures section for pasture use rate.
Sunflower (seedlings)	485 mL - 1.2 L/ha	
Thistles: - Annual	955 mL/ha	
- Californian-spot spray only	-	Repeated applications may be necessary. Refer to spot spray section for rate.
- Saffron	485 mL - 1.45 L/ha	Low rate only sufficient to control weeds in crops at rosette stage when sprayed early.
- Slender/Shore	695 mL - 1.45 L/ha	Suppression only.
- Soldier	1.4 L/ha	Spray young rosette.
- Spear	485 mL - 1.4 L/ha	Spray young rosettes.
- Star-spot spray only	-	Refer to spot spray section for rate.
- Variegated	485 mL - 1.45 L/ha	Spray at rosette stage.
Thornapple	695 mL - 1.45 L/ha#	Spray seedlings only. #Rate for use in crop only. Refer to pastures section for pasture use rate.
Tridax (Tridax daisy)	1.45 L/ha	Spray seedling or young stages only.
Turnip Weed/Rapistrum	495 - 955 mL/ha	
Vetches/Tares	955 mL - 1.2 L/ha	Spray at multiple stage.
Ward's weed	955 mL/ha	
Wild cabbage	1.2 L/ha	Spray multiple leaves.
Wild poppy	495 mL - 1.45 L/ha	Spray rosettes.
Wild radish	695 mL - 1.45 L/ha	Spray up to young rosette stage.
Wild turnip	195 mL - 1.2 L/ha	Spray 2-4 leaf up to rosette stage.



## GENERAL INSTRUCTIONS

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

ZULU® XT is a water soluble liquid product with non-selective herbicidal activity against broadleaf weeds. ZULU® XT will control emerged weeds only, and provides no residual control although certain plant back periods should be observed. ZULU® XT is absorbed by plant foliage and accumulates to toxic levels in the regions of growth and reproduction, upsetting the ability of plants to balance the synthesis and use of nutrients. Visible effects are a gradual yellowing and wilting of the plants which advances to complete browning of above ground growth and deterioration of root systems. Effects may not be apparent for 7- 10 days or even up to 21 days under cold or cloudy conditions.

DO NOT treat weeds under poor growing or dormant conditions such as occur in drought, water-logging, disease, insect damage, following frost, weeds heavily covered with dust or silt. Reduced results may also occur if weeds are under stress from previous herbicide application. Rainfall occurring up to 6 hours after application may reduce effectiveness.

DO NOT spray if strong winds prevail.

## CROP ESTABLISHMENT

ZULU® XT is recommended as a herbicide additive to Wipe-Out® 450 or other compatible glyphosate formulations (## refer also to compatibility section for all compatible glyphosate formulations) for control of emerged weeds prior to crop establishment. When ZULU® XT is applied prior to crop establishment, certain Plant Back Periods should be observed to ensure that the herbicide has degraded sufficiently to allow safe sowing of the intended crop. This process is largely influenced by moisture, temperature and certain soil characteristics and may be delayed particularly when conditions are cold and dry. Refer to the Plant-Back Period table for specific information. In seasons of heavy weed growth, or where the following conditions apply, it may be necessary to further delay sowing until a suitable seedbed can be formed. Conditions which can delay crop germination and seedling development include;

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

To minimise these effects it is suggested that:

- Weed bulk be reduced by grazing and cultivating to leave trash on the surface to dry out;
- A friable seedbed be produced by cultivation, where necessary;
- The use of pre-emergent herbicides to be avoided if they might contribute to reduced germination;
- A correct seeding depth be used.

The preferred alternative is to spray early to control any weeds in their less advanced stages and ensure the seedbed is in a suitable condition for early sowing when soil temperatures are not excessively cold.

## Plant Back Periods (days) for ZULU® XT

CROP	RATES		
	Up to 485 mL/ha	485 - 955 mL/ha	955 mL - 1.45 L/ha
Balansa clover	7	7	10
Barley %	1	1	3
Canola #	14	21	28
Chickpeas #	7	14	21
Cotton	10	14	21
Faba beans	7	7	10
Field peas	7	14	14
Lentils	7	7	10
Linseed	7	7	14
Lucerne	7	7	10
Lupins *	7	14	21
Medics	7	7	10
Narbon beans	7	7	10
Navy bean	10	10	14
Oats	3	3	7
Perennial ryegrass	7	7	10
Persian clover	7	7	10
Phalaris	7	7	10
Rice	7	7	14
Safflower #	7	14	21
Sorghum @	3	7	10
Soybean	14	14	21
Sub. clover	7	7	10
Sunflower @	7	10	14
Triticale %	1	3	7
Vetch	7	7	10
Wheat %	1	3	7
White clover	7	7	10

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

## NOTES:

% In Queensland, no rainfall is required to fall prior to commencement of Plant Back Period for wheat, barley and triticale.

# In Queensland, planting of canola/rapeseed, chickpeas and safflower must be delayed for at least 14 days following rainfall of at least 15mm.

@ In Central Queensland, when using 695 mL/ha or less of ZULU® XT, the Plant Back Period for sorghum and sunflower is 1 day irrespective of rainfall.

\*In WA the Plant Back Period for lupins at all rates is 28 days.

## SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT

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

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

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

## APPLICATION INFORMATION

### In Crop Use:

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

AERIAL APPLICATION - Use 20-90 L/ha of water. Use the higher spray volume when targeting dense stands of larger weeds.

### Fallow use:

#### GROUND SPRAYER APPLICATION

Application of ZULU® XT plus Wipe-Out® 450 or other compatible glyphosate formulations (## refer also to compatibility section for all compatible glyphosate formulations) in a minimum spray volume of 50 L/ha is recommended. Water rate will vary according to product rate. Refer to Compatibility section for recommended water rates. When simazine and/or atrazine is included in the mixture a minimum spray volume of 100 L/ha is recommended.

#### AERIAL EQUIPMENT

Application of ZULU® XT and glyphosate mixtures using boom equipment should occur in a minimum spray volume of 20 L/ha. Water rate will vary according to product rate. Refer to Compatibility section for recommended water rates.

DO NOT apply by aircraft when temperature is above 35°C.

DO NOT use in intensive horticultural cropping areas. Thoroughly wash aircraft, especially landing gear after each day of spraying to remove herbicide residues.

## EQUIPMENT MAINTENANCE AND USAGE

Equipment that has been used for this chemical should not be used for the application of other materials to sensitive plants, unless it has been well washed out with hot soapy water or 1% solution of ammonia, followed by several clear water rinses or use Tank & Equipment Cleaner. If using a Sulfonyleurea herbicides (Tackle® or Lynx®), follow decontamination procedures detailed on those product labels. A 50 mesh primary filter and 80 mesh secondary filter(s) are recommended.

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

**Mixtures with Wipe-Out® 450 or other compatible glyphosate formulations:** Spray solutions of ZULU® XT and Wipe-Out® 450 should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fibreglass or plastic lined containers. DO NOT mix, store or apply spray solutions in galvanised steel or unlined steel (except stainless steel) containers or spray tanks. ZULU® XT/ Wipe-Out® 450 spray solutions may react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture that can flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## APVMA Compliance Instructions for Mandatory VERY COARSE or Larger Droplet Size Categories

### Important Information

These instructions inform users of this chemical product how to lawfully comply with the requirement of a VERY COARSE or larger spray droplet size category for spray application. For ground application, spray droplet size categories are defined in the ASAE S572 Standard (including all newer versions such as S572.1) or the BCPC guideline or the ISO 25358 Standard. Nozzle manufacturers may refer to one or both to identify droplet size categories, but for a nozzle to comply with this requirement, the manufacturer must refer to at least one.

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



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

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

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

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

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

Instructions in this section apply to fixed-wing aerial application of products for which the label Spray Drift Restraint requires VERY COARSE spray droplet category. Nozzle choices must be made using Option 1 or 2 below. Option 1 nozzles are limited to a maximum aircraft speed of 120 knots and are for VERY COARSE droplets only. Option 2 nozzles have their use conditions (maximum airspeed, nozzle spray angle, product used, orifice size, spray system pressure) specified in the APVMA Approved AAAA Nozzle Calculator (described in Option 2). Depending on those use conditions, the calculator can identify a correct nozzle for a VERY COARSE spray droplet category. (Note that to use Option 2, aerial applicators must contact the Aerial Agricultural Association of Australia for access to their approved nozzle calculator).

#### Mandatory Instructions for Fixed-Wing Aerial Applications

##### Option 1

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

#### OR

#### Mandatory Instructions for Fixed-Wing Aerial Applications (continued)

##### Option 2

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

- Aerial applicators must only use the droplet size category given in the nozzle calculator at the DV(0.1) position to identify a nozzle to comply with the required spray droplet category. The categories shown at the DV(0.5) and the DV(0.9) positions in the calculator must not be used for making a nozzle selection.
- Aerial applicators must not apply at airspeeds greater than that speed used to select the nozzle. If an application airspeed slower than 100 knots (the minimum speed specified in the nozzle calculator) is planned, a nozzle identified as VERY COARSE at 100 knots can also be used at slower airspeeds provided that the nozzle angle and system pressure are kept the same.
- When a particular pesticide product is chosen within the nozzle calculator as one of the conditions set to select a nozzle, then aerial applicators must use that specific pesticide product with that nozzle. When a pesticide product is planned for use and is not available as a choice within the nozzle calculator, aerial applicators must use the category "Other Product" in the calculator to set the condition for selecting a nozzle.

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

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

Instructions in this section apply to helicopter application of products where the label Spray Drift Restraint requires a VERY COARSE or larger spray droplet category. Nozzle choices must be made using Option 1 or 2 below.

#### Mandatory Instructions for Helicopter Aerial Application

##### Option 1

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

#### OR

#### Mandatory Instructions for Helicopter Aerial Application (continued)

##### Option 2

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

#### SURFACTANT ADDITION – CONSERVATION TILLAGE

**DO NOT** add surfactant except for Conservation Tillage where the product is to be tank-mixed with a glyphosate product. In this situation always add Wetspray® 1000 in accordance with label directions on the glyphosate product. Use Raizer® 700 if insecticides will be included in the tank mixture or if faster brownout of weeds is required or for assistance in droplet size management to partially reduce the number of fine droplets produced from hydraulic nozzles by air and ground.

To improve performance under adverse environmental conditions or when dealing with large weeds, the addition of liquid ammonium sulphate at 834 g/100 L is recommended. Addition of crystalline ammonium sulphate may take a significantly longer time to dissolve. **DO NOT** mix with spraying oils, or any other materials or agricultural chemicals except as directed on this label.

#### TANK MIXTURES – CONSERVATION TILLAGE

A mixture of ZULU® XT and Wipe-Out® 450 or other compatible glyphosate formulations may be tank mixed with the following herbicides, insecticides and adjuvants where recommended in the Directions for Use tables. Read and follow all label directions, restraints and plant back periods, withholding periods and safety directions for the tank mix products.

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

Tackle® - Will provide control for a wide range of broadleaf weeds and grasses.

Lynx® - For improved knockdown control of Yellow burr weed (Amsinckia), Volunteer chickpeas, Chickweed, Common sowthistle, Cut-leaf mignonette, Dead nettle, Faba beans, Mallee catchfly, Soursob, Stagger weed, Wild garlic. Lynx® DOES NOT provide residual in-crop weed control.

#### INSECTICIDES

Strike-Out® 500 EC, Dimethoate, Imidan¹, Alpha-Scud® and Orbit® can be introduced into the tank mix for specific control to prevent insect damage to emerging crops.

#### MIXING INSTRUCTIONS

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

- Fill the spray tank with clean water to at least 70% of the required amount and start agitation. **DO NOT** use mechanical agitators as these may cause excessive foaming when herbicides are added.
- Add recommended herbicide additive/insecticide to the spray tank and mix thoroughly (mixing order water dispersible granules, then suspension concentrates, then emulsifiable concentrates, then soluble liquids).
- Add ZULU® XT and mix thoroughly.
- Top up tank to 95% of desired capacity then add any glyphosate product and the remaining water.
- When Activator¹ or Wetspray® is used, add near the end of the filling process.
- Always maintain adequate agitation during application and use the tank mix promptly.

#### COMPATIBILITY

This product may be tank mixed with the following products.

HERBICIDES: Artillery®, Cutlass® (dicamba), Cavalier®, Cavalier® 500, Diuron 900 WG, Diuron 500 Flowable Herbicide, Juggler®, Tackle®, Enforcer® 75-D, Farmozine®, Flagship® 200, Flagship® 400, Lynx® WG, Outshine®, Picoflex®, Atlapon¹, Dalapon¹, Safari², Safari³ 750, Simanex® 600 SC, Simanex® 900 WG, Spray & Sow®, Spraytop®, Trilogy®, Trilogy® 600, Victory®, Victory® 750 SG, Vortex®, Wipe-Out® 450 and Wipe-Out® Pro.

INSECTICIDES: Alpha-Scud® Elite, Alpha -Scud® 300, Aphidex® 800, Dimethoate, Imidan¹, Orbit®, Pyrinex Super, Strike-Out® 500 EC, Venom 240 SC.

FUNGICIDES: Bumper® 625, Opera¹, Orius® 430 SC, Radial¹, Soprano®, Soprano® 500, Topnotch® and Veritas®.

PGR: Cycocel¹ 750A.

TRACE ELEMENTS: Oxide formulations of foliar fertilisers are generally physically compatible with ZULU® XT but reductions in weed efficacy can occur. A minimum water volume of 70 L/ha is recommended.

#### RESISTANT WEEDS WARNING

ZULU® XT Herbicide contains 2,4-D, a member of the

**GROUP I HERBICIDE**

Phenoxys group of herbicides. ZULU® XT has the Disruptors of plant cell growth mode of action. For weed resistance management ZULU® XT is a Group I herbicide. Some naturally occurring weed biotypes resistant to ZULU® XT and other Group I herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by ZULU® XT or other Group I herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Adama Australia accepts no liability for any losses that may result from the failure of ZULU® XT to control resistant weeds.

#### PRECAUTION

##### Re-Entry Period

**DO NOT** enter treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

#### PROTECTION OF CROPS, NATIVE AND OTHER NON TARGET PLANTS

**DO NOT** spray in high winds.

**DO NOT** spray cereals if lucerne is present.

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

**DO NOT** apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants, crops, cropping lands or pastures. Avoid spray drift and vapour movement onto susceptible crops such as cotton, tobacco, tomatoes, vines, lupins, fruit trees, ornamentals, vegetables, legume crops and pastures, oilseed crops and susceptible trees (e.g. Kurrajongs, Belahs and Eucalypts).

#### PROTECTION OF LIVESTOCK

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

#### PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

## STORAGE AND DISPOSAL

**5 L, 15 L, 20 L, 200 L:** 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 spray tank. DO NOT dispose of undiluted chemicals on site. This container can be recycled if it is clean, dry, free of visible residues and has the *drumMUSTER* logo visible. Triple rinse container for disposal. Dispose of rinsate by adding it to the spray tank. DO NOT dispose of undiluted chemical on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any *drumMUSTER* collection or similar container management program site. The cap should not be replaced, but may be taken separately. 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 regulation. Do not burn empty containers or product.

**110 L, 1000 L (Refillable Containers):** Store the original sealed container in a cool well ventilated area. DO NOT store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

## SAFETY DIRECTIONS

Harmful if swallowed. Avoid contact with eyes and skin. Do not inhale spray mist. When opening the container and preparing product for use and if applying by spraying equipment carried on the back of the user or if applying by low pressure hand wand wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat, elbow-length chemical resistant gloves and face shield or goggles. When using the prepared spray if applying by boomspray equipment or high pressure hand wand wear elbow-length chemical resistant gloves and face shield or goggles. If product or spray in eyes, wash it out immediately with water. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

## FIRST AID

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

## SDS

Additional information is listed in the safety data sheet (SDS). A safety data sheet for ZULU® XT Herbicide is available from [adama.com](http://adama.com) or call Customer Service on 1800 423 262.

**CONDITIONS OF SALE:** The use of ZULU® XT Herbicide being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama Australia, 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 Adama Australia accepts no responsibility for any consequence whatsoever from the use of this product.

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