

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

**Valor**<sup>®</sup>  
500 WG HERBICIDE

ACTIVE CONSTITUENT: 500g/kg FLUMIOXAZIN

GROUP **G** HERBICIDE

**For rapid knockdown and control of various grass and broadleaved weeds when mixed with certain glyphosate or paraquat/diquat herbicides; for control of volunteer cotton when applied alone prior to sowing summer crops, or preor post-sowing pre-emergence for cotton; for control of various broadleaved weeds when applied as a directed spray in cotton; for enhanced knockdown and residual weed control in summer crops when applied pre-sowing or post sowing pre-emergent; for knockdown and residual control of various grass and broadleaved weeds in sugarcane; and for enhanced knockdown and residual weed control in irrigation channel banks and drainage ditches as per the Directions for Use table in the attached booklet.**

### **RESTRAINTS (apply to all use patterns)**

**DO NOT** apply by aircraft.

**DO NOT** apply by a vertical sprayer.

**DO NOT** apply by misting machines.

**DO NOT** treat weeds under poor growing or dormant conditions (such as occur in drought, waterlogging, disease, insect damage or following frosts) as reduced control may result. Weeds should be actively growing at time of treatment.

**DO NOT** apply in high pH water (pH >7).

**DO NOT** allow the spray mix to stand overnight.

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

### **SPRAY DRIFT RESTRAINTS**

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

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

**DO NOT** apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

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

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

- spray droplets not smaller than a COARSE spray droplet size category
- mandatory no-spray zones between the application site and downwind sensitive areas are observed.

### **MANDATORY NO-SPRAY ZONES**

**DO NOT** apply if there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers within 5 metres downwind from the application area.

**DO NOT** apply if there are sensitive crops, gardens, landscaping vegetation, protected native vegetation or protected animal habitat downwind from the application area and within the mandatory no-spray zones shown in the table below.

| <b>NO-SPRAY ZONES FOR PROTECTION OF THE TERRESTRIAL ENVIRONMENT</b> |   |
|---|---|
| <b>Use situation</b>  | <b>Downwind mandatory no-spray zone</b> |
| Cereal grains, pulses, oilseeds, cotton                             | 50 metres                               |
| Sugarcane, irrigation channel banks or drainage ditches             | 120 metres                              |

## DIRECTIONS FOR USE

1. CEREAL GRAINS (WHEAT, BARLEY, OATS, MAIZE AND SORGHUM), PULSES (LUPINS, CHICKPEAS, FABA BEANS, FIELD PEAS, LENTILS, PIGEON PEAS, NAVY BEANS AND MUNGBEANS), OILSEEDS (SOYBEANS, SUNFLOWERS AND PEANUTS) AND COTTON.

Table A. Valor 500 WG Herbicide applied as a pre-plant burndown “spike” with glyphosate OR with either paraquat or a diquat/paraquat mixture.

| CROP / SITUATION   | WEEDS CONTROLLED   | RATE  | STATE             | CRITICAL COMMENTS   |
|--|--|---|-------------------|---|
| <p>PRIOR TO SOWING<br/> <b>Barley, Chick peas, Cotton, Faba beans, Field peas, Lentils, Lupins, Maize, Mungbeans, Navy beans, Oats, Peanuts, Pigeon peas, Sorghum, Soybeans, Sunflowers, and Wheat</b></p> | <p>Follow the Directions For Use of the glyphosate or Paraquat/ Diquat knockdown herbicides, and the addition of VALOR 500 WG Herbicide will increase the speed of brownout and may improve final control of the following weeds:</p> <p>Annual polymeria (<i>Polymeria pusilla</i>)<br/>           Bellvine (<i>Ipomoea plebeia</i>)<br/>           Black bindweed (<i>Fallopia convolvulus</i>)<br/>           Black pigweed (<i>Trianthema portulacastrum</i>)<br/>           Bladder ketmia (<i>Hibiscus trionum</i>)<br/>           Caltrop/Peach vine (<i>Tribulus terrestris</i>)<br/>           Capeweed (<i>Arctotheca calendula</i>)<br/>           Cow vine (<i>Ipomoea lonchophylla</i>)<br/>           Dead nettle (<i>Lamium amplexicaule</i>)<br/>           Doublegee (<i>Emex australis</i>)<br/> <i>Erodium</i><br/>           False castor oil (<i>Datura stromonium</i>)<br/>           Liverseed grass (<i>Urochloa panicoides</i>)<br/>           Marshmallow (<i>Malva parviflora</i>)<br/> <i>Medicago</i> spp.<br/>           Noogoora burr (<i>Xanthium occidentale</i>)<br/>           Paterson’s Curse (<i>Echium plantagineum</i>)<br/>           Red pigweed (<i>Portulaca oleracea</i>)<br/>           Redroot amaranth (<i>Amaranthus retroflexus</i>)<br/>           Seedling Lucerne (<i>Medicago sativa</i>)<br/>           Shepherd’s Purse (<i>Capsella bursa-pastoris</i>)<br/>           Sowthistle (<i>Sonchus oleraceus</i>)</p> <p>(continued next page)</p> | <p>30 g/ha of Valor plus the label rate of tank mix partner plus an adjuvant#</p> | <p>All States</p> | <p><b>Observe the restraints, rates, mixing and general instructions on the knockdown herbicide product labels.</b></p> <p>Best results are obtained when applied to young weeds between the 2- and 6-leaf stage.</p> <p>Addition of Valor 500 WG Herbicide to knockdown products will increase the speed at which treated weeds develop visible symptoms of phytotoxicity (compared to the results achieved with tank mix partner products alone) and may improve the final control of certain broadleaved weeds.</p> <p>To ensure uptake of Valor 500 WG Herbicide <b>DO NOT</b> sow crops for at least one hour after application. Always refer to the tank-mix partner product label in case a longer sowing interval is required.</p> <p>#Always apply with Hasten Spray Adjuvant or Kwicken Spray Adjuvant at 0.5 - 1L/100L (use the lower rate on smaller, actively growing weeds), or Uptake Spraying Oil at 500 mL/100L.</p> |

**Table A. (continued)**

| CROP / SITUATION   | WEEDS CONTROLLED   | RATE  | STATE             | CRITICAL COMMENTS |
|--|--|---|-------------------|-------------------|
| <p>PRIOR TO SOWING<br/> <b>Barley, Chick peas, Cotton, Faba beans, Field peas, Lentils, Lupins, Maize, Mungbeans, Navy beans, Oats, Peanuts, Pigeon peas, Sorghum, Soybeans, Sunflowers, and Wheat</b></p> | <p>Spurred vetch (<i>Vicia monantha</i>)<br/>           Sunflower (<i>Helianthus annuus</i>)<br/>           Subterranean clover* (<i>Trifolium subterraneum</i>)<br/>           Tarvine (<i>Boerhavia dominii</i>)<br/>           Turnip weed (<i>Rapistrum rugosum</i>)<br/>           Volunteer canola (<i>Brassica napus</i>)<br/>           Wild radish (<i>Raphanus raphanistrum</i>)<br/>           Wireweed (<i>Polygonum aviculare</i>)</p> <p>If one of the above weeds is the dominant weed, and there is no specific rate for it on the glyphosate product label, consult the label's generic annual-weed rate range.</p> <p>Select from within this range to suit the weed-stage, weed density, conditions etc of your situation.</p> <p>*Suppression only</p> | <p>30 g/ha of Valor plus the label rate of tank mix partner plus an adjuvant#</p> | <p>All States</p> |                   |

**Note:**

The addition of Valor to glyphosate, paraquat or diquat will not help to control large weeds or weeds that have hardened up from stress or established big tap roots.

Glyphosate resistant weeds may not be controlled by addition of VALOR Herbicide.

See application section for recommendations to get the best results.

**Crop rotation recommendations**

The minimum plant back or preplant interval for canola after application of VALOR at 30g/ha is 5 months.

**Table B. Valor 500 WG Herbicide applied as a burndown for control of volunteer cotton.**

| CROP / SITUATION  | WEEDS CONTROLLED   | WEED GROWTH STAGE | RATE   | STATE            | CRITICAL COMMENTS  |
|---|--|-------------------|--|------------------|--|
| <p>PRIOR TO SOWING</p> <p><b>Maize</b><br/><b>Mungbeans</b><br/><b>Sorghum</b><br/><b>Soybeans and Sunflowers</b></p> | <p>Volunteer cotton including volunteer Roundup Ready cotton</p> | up to 4 leaf      | 45 g/ha of Valor plus an adjuvant <sup>#</sup> | NSW and QLD only | <p><b>DO NOT apply post-sowing pre-emergent.</b></p> <p><b>DO NOT</b> sow crops for at least one hour after application.</p> <p>Valor 500 WG can be tank mixed with glyphosate to control other weeds that are present. Refer to the glyphosate label for the appropriate label rate according to the weeds present.</p> <p><sup>#</sup>Always apply with Hasten Spray Adjuvant or Kwickin Spray Adjuvant at 0.5 - 1L/100L (use the lower rate on smaller, actively growing weeds), or Uptake Spraying Oil at 500 mL/100L.</p> |
| <p><b>Cotton</b></p> <p>PRE- or POST SOWING pre emergence</p>   | <p>Volunteer cotton including volunteer Roundup Ready cotton</p> | up to 4 leaf      | 45 g/ha of Valor plus an adjuvant <sup>#</sup> | NSW and QLD only | <p>Apply not later than 1 hour prior to sowing or post sowing up to 2 days before first crop emergence</p> <p>Valor 500 WG can be tank mixed with glyphosate to control other weeds that are present. Refer to the glyphosate label for the appropriate label rate according to the weeds present.</p> <p><sup>#</sup>Always apply with Hasten Spray Adjuvant or Kwickin Spray Adjuvant at 0.5 - 1L/100L (use the lower rate on smaller, actively growing weeds), or Uptake Spraying Oil at 500 mL/100L.</p>                   |

**Table C. Valor 500 WG Herbicide applied as a layby application for weed control in COTTON.**

| CROP / SITUATION             | WEEDS CONTROLLED  | WEED GROWTH STAGE  | RATE                                  | CRITICAL COMMENTS   |
|------------------------------|---|--|---------------------------------------|---|
| Cotton<br>Lay-by application | Caltrop<br>Noogoora burr<br>Yellowvine<br>( <i>Tribulus terrestris</i> & <i>T. micrococcus</i> )  | <10 cm Ø<br>< 4 leaf<br><10 cm Ø   | 60 g/ha plus an adjuvant <sup>#</sup> | <p>Apply as a shielded spray underneath cotton foliage and to inter rows to control late germinating weeds, or weeds that have escaped previous herbicide operations.</p> <p>Best results are obtained when applied to young weeds between the 2- and 6-leaf stage.</p> <p>Vines that have commenced climbing may not be controlled.</p> <p><b>CAUTION:</b> Valor 500 WDG will defoliate any cotton foliage that is contacted by the spray. Shielded sprayers must be operated to ensure that spray does not make contact with cotton foliage.</p> <p><b>DO NOT</b> apply in conditions conducive to drift.</p> <p><b>DO NOT</b> apply until cotton plants are 40 cm tall.</p> <p><b>DO NOT</b> allow contact with green bark on stems or trunks.</p> <p><sup>#</sup>Always apply with Hasten Spray Adjuvant or Kwickin Spray Adjuvant at 0.5 - 1L/100L (use the lower rate on smaller, actively growing weeds), or Uptake Spraying Oil at 500 mL/100L.</p> |
|                              | Annual polymeria<br>( <i>Polymeria pusilla</i> )<br>Bellvine<br>Black pigweed<br>Bladder ketmia<br>Cow/Peach vine<br>Dwarf amaranth<br>( <i>Amaranthus macrocarpus</i> )<br>Red pigweed<br>Sow thistle<br>Spiked malvastrum<br>( <i>Malvastrum americanum</i> ) | <6 leaf<br><br><12 leaf<br><12 leaf<br><6 leaf<br><12 leaf<br><4 branch<br><br><15 cm Ø<br><4 leaf<br><10 cm Ø | 90 g/ha plus an adjuvant <sup>#</sup> |   |

**Table D. Valor 500 WG Herbicide applied pre-sowing or post sowing pre-emergent to provide enhanced knockdown and residual weed control in summer crops.**

## RESTRAINTS (ADDITIONAL)

**DO NOT** disturb treated soil surface after application as this may remove VALOR.

**DO NOT** use flood irrigation as a means of incorporation on planting mounds/beds. This has often been shown to be inadequate as VALOR may be left on the soil surface at the top of the mound and if followed by heavy rain at emergence it may lead to crop damage.

| CROP / SITUATION  | WEEDS CONTROLLED   | RATE   | CRITICAL COMMENTS   |
|---|--|--|---|
| <p>PRE- or POST SOWING pre emergence</p> <p><b>Peanuts</b></p> <p><b>Soybean</b></p> <p>Enhanced knockdown of vines and broadleaf weeds and residual control of vines, broadleaf and grasses.</p>   | <p><i>Amaranthus</i> spp.</p> <p>Barnyard grass (<i>Echinochloa colona</i>)</p> <p>Bladder ketmia (<i>Hibiscus trionum</i>)</p> <p>Bluetop/Billygoat weed (<i>Ageratum houstonianum</i>)</p> <p>Calopo (<i>Calopogonium mucunoides</i>)</p> <p>Caltrop/yellow vine (<i>Tribulus terrestris</i>)</p> <p>Crowsfoot (<i>Eleusine indica</i>)</p>  | <p>Presowing 210-280 g/ha</p> <p>Post sowing pre-emergent 210 g/ha</p> | <p>VALOR Herbicide needs at least 15 mm of overhead irrigation or rain to incorporate/activate, and therefore should preferably be applied during the main rainfall period when at least 15 mm of rain or irrigation is expected within 3 weeks. This 15mm is also necessary after application and before planting pigeon pea, maize, sorghum, navybean, cotton, sunflowers or mungbeans to improve crop safety.</p>  |
| <p>Post fallow</p> <p>PRE-SOWING burndown with residual weed control</p> <p><b>Pigeon pea</b></p> <p><b>Maize</b></p> <p><b>Sorghum</b></p> <p><b>Navybean</b></p> <p>At least 1 month prior to sowing</p><br><p><b>Cotton</b></p> <p><b>Sunflower</b></p> <p><b>Mungbeans</b></p> <p>At least 2 months prior to sowing</p> | <p>Feathertop Rhodes grass (<i>Chloris virgata</i>)</p> <p>Fleabane (<i>Conyza bonariensis</i>)</p> <p><i>Ipomoea</i> spp. (Bell vine, Morning glory, Pink convolvulus, Star of Bethlehem)</p> <p>Milk/sow thistle (<i>Sonchus oleraceus</i>)</p> <p>Milkweed (<i>Euphorbia heterophylla</i>)</p> <p><i>Phyllanthus</i> spp.</p> <p>Red pigweed (<i>Portulaca oleracea</i>)</p> <p>Sicklepod (<i>Cassia obtusifolia</i>)</p> <p>Summer grass (<i>Digitaria ciliaris</i>)</p> <p>Square weed (<i>Spemacoce latifolia</i>)</p> <p>Wild rose (<i>Cleome aculeata</i>)</p> | <p>210-280 g/ha</p>  | <p>If existing weeds are present at &gt; 2 leaf stage then non-selective knockdown herbicides such as paraquat and glyphosate should be used at sufficient rates to control these in mixtures with VALOR.</p> <p>For improved burndown apply with Hasten or Kwickin Spray Adjuvant at 0.5 - 1L/100L (use the lower rate on smaller, actively growing weeds), or Uptake Spraying Oil at 500mL/100L.</p> <p>Heavy rainfall (&gt;25mm) and prolonged wet weather during emergence may cause crop injury particularly where there has been insufficient previous rainfall to incorporate VALOR and the sub-soil has been saturated by flood irrigation. For post sowing applications this will be worse if application is delayed until seedlings are starting to crack through the soil. Application to peanuts or soybeans should be made either prior to planting, or within 2 day of planting.</p> <p>For pigeon pea, maize, sorghum, navybean, cotton, sunflowers and mungbeans follow the recommended pre-plant interval and ensure at least 15mm of rain has fallen or overhead irrigation has been applied prior to planting.</p> <p>For winter crops follow the plant back intervals listed below (under "Crop rotation recommendations").</p> <p style="text-align: right;">(continued next page)</p> |

**Table D. (continued)**

| CROP / SITUATION  | WEEDS CONTROLLED | RATE         | CRITICAL COMMENTS  |
|---|------------------|--------------|--|
| <u>Post fallow</u><br>PRE-SOWING<br>burndown with<br>residual weed<br>control<br><b>Pigeon pea</b><br><b>Maize</b><br><b>Sorghum</b><br><b>Navybean</b><br>At least 1 month<br>prior to sowing<br><br><b>Cotton</b><br><b>Sunflower</b><br><b>Mungbeans</b><br>At least 2 months<br>prior to sowing |                  | 210-280 g/ha | <i>(continued from previous)</i><br><br>Planting any crop seed at a shallower depth than normal (<2.5cm) with poor soil coverage of the seed can also contribute to crop injury.<br>A minimum of 80L/ha of spray mixture is recommended. Use more water with heavy stubble or trash.<br><b>Efficacy may be reduced by:</b> <ul style="list-style-type: none"> <li>– soil movement</li> <li>– shadowing caused by trash, heavy stubble or large clods</li> <li>– thick trash - long dry conditions after rain or irrigation</li> <li>– high pressure from large seeded weeds that can germinate from moisture at depth through dry surface soil.</li> </ul> In these conditions reliability may be improved by the addition of a suitable herbicide for that crop, with stronger grass activity and more solubility. Note that heavy rain soon after sowing can also result in phytotoxicity from these other herbicides. |

### Crop rotation recommendations

The following plant back or recropping intervals apply to crops that may be grown during the winter period on rotation with the summer crops, where 210-280g of VALOR has been applied.

| Crop        | Minimum plant back or re-cropping interval |
|-------------|--|
| Faba beans  | none required                              |
| Chickpeas   | 1 month                                    |
| Field peas  | 1 month                                    |
| Wheat       | 2 months                                   |
| Barley      | 3 months                                   |
| Durum wheat | 3 months                                   |
| Lupins      | 3 months                                   |
| Oats        | 3 months                                   |
| Triticale   | 3 months                                   |
| Lentils     | 4 months                                   |
| Lucerne     | 6 months                                   |
| Canola      | 9 months                                   |

For advice on crops not listed contact the manufacturer Sumitomo Chemical Australia.

## 2. SUGARCANE

**Table E. Valor 500 WG Herbicide applied to enhance knockdown in mixtures with non-selective herbicides, eg. paraquat, glufosinate and also atrazine; and applied to provide enhanced knockdown and long term residual weed control.**

### RESTRAINTS (additional)

**DO NOT** apply for enhanced knockdown if weeds are stressed from drought, frost or waterlogging.

**DO NOT** apply for residual weed control until the start of summer rains when significant soil wetting rain has occurred or the soil has been irrigated and more rain or irrigation (> 15 mm) is expected within 3 weeks.

**DO NOT** apply if heavy rains or storms that are likely to cause runoff are forecast within 3 days.

**DO NOT** apply on sandy soils in areas where the slope exceeds 4%.

**DO NOT** disturb treated soil surface after application as this may remove VALOR.

**DO NOT** make more than one application per year.

**DO NOT** plant crops other than sugarcane for 12 months after application.

| Valor 500 WG Herbicide applied to enhance knockdown in mixtures with non-selective herbicides, eg. paraquat, glufosinate and also atrazine |  |   |   |
|--|--|---|---|
| CROP / SITUATION   | WEEDS CONTROLLED   | RATE  | CRITICAL COMMENTS   |
| <b>Sugarcane</b><br><u>Plant – after filling in or Ratoons</u><br>To enhance knockdown of vines and broadleaf                              | <u>Broadleaf and vines</u><br>< 9 leaf stage<br>Including:<br>Amaranthus<br>Billygoat weed/Bluetop<br>Calopo<br>Common sida<br><i>Ipomoea</i> spp. (Bell vine, Morning glory, Pink convolvulus, Red convolvulus, Star of Bethlehem)<br>Pig weed<br>Sicklepod<br>Spider flower<br>Square weed/Borreria<br>Wild rose | 90-120 g/ha<br>Valor 500 WG<br>plus the label rate of tank mix partner plus an adjuvant | Apply Valor 500 WG herbicide as a directed spray to the base of the cane plants.<br>Non ionic surfactants may be used but addition of a crop oil concentrate such as Hasten may give a better result.<br>If Calopo or Sicklepod are present then the addition of atrazine may improve knockdown.<br>To ensure knockdown in vines the growing tip needs to be sprayed.<br>Valor 500 WG also enhances the knockdown of glyphosate on broadleaved weeds and vines, but great care must be taken not to allow glyphosate to drift on to cane. |

**Table E. (continued)**

| Valor 500 WG Herbicide applied to provide enhanced knockdown and long term residual weed control   |   |              |   |
|--|---|--------------|---|
| CROP / SITUATION   | WEEDS CONTROLLED  | RATE         | CRITICAL COMMENTS   |
| <p><b>Sugarcane</b><br/> <u>Plant – after filling in or Ratoon - no trash blanket.</u><br/>           Bare soil situations in higher rainfall areas such as wet tropics or with supplementary irrigation<br/>           Enhanced knockdown of vines and broadleaf and residual control of vines, broadleaf and grasses</p> | <p><u>Broadleaf and vines</u><br/>           &lt; 9 leaf stage<br/>           Including:<br/>           Amaranthus<br/>           Balsam pear<br/>           Billygoat weed/Bluetop<br/>           Blackberry nightshade<br/>           Calopo<br/>           Common sida<br/>           Fleabane<br/>           Giant pigweed<br/> <i>Ipomoea</i> spp. (Morning glory, Pink convolvulus, Red convolvulus, Star of Bethlehem)<br/>           Milkweed<br/>           Pig weed<br/>           Sicklepod<br/>           Spider flower<br/>           Square weed/Borreria<br/>           Wild rose</p> <p><u>Grasses</u><br/>           Barnyard grass<br/>           Crowsfoot</p> | 350-560 g/ha | <p>Apply Valor 500 WG herbicide as a directed spray to the base of the cane plants.</p> <p>If existing weeds are present at the 2 – 8 leaf stage then non-selective herbicides eg. Paraquat should be added to ensure adequate knockdown. If grasses greater than 3 leaf are present the addition of a low rate of diuron to paraquat will improve knockdown.</p> <p>If Calopo or Sicklepod are present then the addition of atrazine may improve knockdown.</p> <p>Non ionic surfactants may be used but addition of a crop oil concentrate such as Hasten will generally give a better knockdown result.</p> <p>Valor 500 WG also enhances the knockdown of glyphosate on broadleaved weeds and vines and then provides on going residual control, but great care must be taken not to allow glyphosate to drift on to cane.</p> <p>A minimum of 200L/ha of spray mixture is recommended.</p> |
| <p><b>Sugarcane</b><br/> <u>Ratoon with trash blanket, or Plant and ratoon with bare soil with low rainfall and flood irrigation eg. Burdekin area</u><br/>           Enhanced knockdown of vines and broadleaf and residual control of vines, broadleaf and grasses</p>   | <p>Feather top - Rhodes grass<br/>           Green summer grass<br/>           Summer grass</p>   | 560-700 g/ha | <p>Valor 500 WG herbicide should be applied to moist soil and needs follow up rain or irrigation of at least 15mm within 3 weeks to ensure continued good control particularly on trash.</p> <p>Efficacy may be reduced by:</p> <ul style="list-style-type: none"> <li>– Soil movement</li> <li>– Very thick trash</li> <li>– Flood irrigation or flood water moving top soil or trash</li> <li>– Long dry conditions after rain or irrigation.</li> </ul> <p>In these situations reliability may be improved by adding a lower rate of Valor 500 WG to other more water soluble herbicides that move further down in the soil profile such as: S-metolachlor, metolachlor or atrazine.</p>   |

## Crop rotation recommendations

The following plant back or recropping intervals apply to crops that may be grown after sugarcane where VALOR 500 WG Herbicide has been applied at up to 700g/ha. These intervals are based on the assumption that the soil will be thoroughly cultivated after cane has been grown and before these other crops are planted.

| Crop         | Minimum plant back or re-cropping interval |
|--------------|--|
| Peanut       | 5 months                                   |
| Pumpkin      | 5 months                                   |
| Rice         | 5 months                                   |
| Shallot      | 5 months                                   |
| Soybean      | 5 months                                   |
| Sweet corn   | 5 months                                   |
| Cabbage      | 8 months                                   |
| Capsicum     | 8 months                                   |
| Lettuce      | 8 months                                   |
| Mungbean     | 8 months                                   |
| Sweet potato | 8 months                                   |
| Tomato       | 8 months                                   |
| Zucchini     | 8 months                                   |
| Canola       | 12 months                                  |
| Rockmelon    | 12 months                                  |

## 3. IRRIGATION CHANNEL BANKS AND DRAINAGE DITCHES

**Table F. Valor 500 WG Herbicide applied for enhanced knockdown and residual weed control in irrigation channel banks and drainage ditches.**

### RESTRAINTS (additional)

**DO NOT** apply if heavy rains or storms that are likely to cause runoff are forecast within 3 days.

**DO NOT** disturb treated soil surface after application as this may remove VALOR.

**DO NOT** make more than one application per year.

| CROP / SITUATION                                     | WEEDS CONTROLLED  | RATE         | CRITICAL COMMENTS   |
|--|---|--------------|---|
| <b>Irrigation channel banks and drainage ditches</b> | <i>Amaranthus</i> spp.<br>Balsam pear ( <i>Mormordica charantia</i> )<br>Barnyard grass ( <i>Echinochloa colona</i> )<br>Bladder ketmia ( <i>Hibiscus trionum</i> )<br>Bluetop/Billygoat weed ( <i>Ageratum houstonianum</i> )<br>Calopo ( <i>Calopogonium mucunoides</i> )<br>Caltrop/yellow vine ( <i>Tribulus terrestris</i> )<br>Crowsfoot ( <i>Eleusine indica</i> )<br>Feathertop Rhodes grass ( <i>Chloris virgata</i> )<br>Fleabane ( <i>Conyza bonariensis</i> )<br>Green summer grass ( <i>Brachiaria subquadripara</i> ) | 560-700 g/ha | Channels must be completely empty at the time of application. VALOR Herbicide needs at least 15 mm of rain to incorporate/activate, and therefore should be applied during the main rainfall period when 15 mm of rain is expected within 3 weeks.<br><br>If the required rain has not fallen and it is necessary to use the irrigation channel, fill it with water and allow it to stand for 24 hours then drain off the water in the channel and run to waste. If existing weeds are present at > 2 leaf stage then non-selective knockdown herbicides such as paraquat or glyphosate should be used to control these in mixtures with VALOR. |

(continued next page)

Table F. (continued)

| CROP / SITUATION                                     | WEEDS CONTROLLED  | RATE         | CRITICAL COMMENTS   |
|--|---|--------------|---|
| <b>Irrigation channel banks and drainage ditches</b> | <i>Ipomoea</i> spp. (Bell vine, Morning glory, Pink convolvulus, Star of Bethlehem)<br>Milk/sow thistle ( <i>Sonchus oleraceus</i> )<br>Milkweed ( <i>Euphorbia heterophylla</i> )<br><i>Phyllanthus</i> spp.<br>Red pigweed ( <i>Portulaca oleracea</i> )<br>Sicklepod ( <i>Cassia obtusifolia</i> )<br>Summer grass ( <i>Digitaria ciliaris</i> )<br>Square weed ( <i>Spemacoce latifolia</i> )<br>Wild rose ( <i>Cleome aculeata</i> ) | 560-700 g/ha | <i>(continued from previous)</i><br><br>For improved burndown apply with Hasten or Kwickin Spray Adjuvant at 0.5 - 1L/100L (use the lower rate on smaller, actively growing weeds), or Uptake Spraying Oil at 500 mL/100L |

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

## WITHHOLDING PERIODS:

**CEREAL GRAINS (WHEAT, BARLEY, OATS, MAIZE AND SORGHUM), PULSES (LUPINS, CHICKPEAS, FABA BEANS, FIELD PEAS, LENTILS, PIGEON PEAS, NAVY BEANS AND MUNGBEANS), OILSEEDS (SOYBEANS, SUNFLOWERS AND PEANUTS) AND COTTON:**

**HARVEST:** NOT REQUIRED WHEN USED AS DIRECTED.

**WHEAT, BARLEY, OATS, LUPINS, CHICKPEAS, FABA BEANS, FIELD PEAS, LENTILS:**

**GRAZING:** DO NOT ALLOW LIVESTOCK TO GRAZE VEGETATION PRESENT AT TIME OF TREATMENT FOR 2 WEEKS AFTER APPLICATION. DO NOT GRAZE OR CUT CROPS PLANTED FOLLOWING TREATMENT FOR STOCK FOOD FOR 6 WEEKS AFTER APPLICATION.

**SOYBEANS, MUNGBEANS, PIGEON PEA AND NAVY BEANS:**

**GRAZING:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 6 WEEKS AFTER APPLICATION.

**MAIZE, SORGHUM, SUNFLOWER AND PEANUT:**

**GRAZING:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 8 WEEKS AFTER APPLICATION.

**COTTON:**

**GRAZING:** DO NOT ALLOW LIVESTOCK TO GRAZE TREATED COTTON CROP, STUBBLE OR GIN TRASH.

**SUGARCANE:**

**HARVEST:** DO NOT HARVEST FOR 22 WEEKS AFTER APPLICATION.

**GRAZING:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 22 WEEKS AFTER APPLICATION.

**IRRIGATION CHANNEL BANKS AND DRAINAGE DITCHES:**

**GRAZING:** DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 8 WEEKS AFTER APPLICATION.

## GENERAL INSTRUCTIONS

### MIXING

VALOR 500 WG is a water dispersible granule formulation and is contained within a water soluble bag. The water soluble bags dissolve readily in water. **DO NOT** handle water soluble bags or expose to moisture because this may cause breakages. **DO NOT** touch bags with wet hands or place on wet surfaces. **DO NOT** damage foil Sachets that contain the water soluble bags. Protect unused Sachets by keeping them in the original container. Open Sachets only as needed.

To ensure even mixing, half-fill the spray tank with clean water. Tear open the necessary number of sachets and drop the water soluble bags contained in them into the spray tank **without touching the bags**. Keep the agitation system engaged. Mix thoroughly until fully dissolved. Add the knockdown herbicide and remaining water. Mix thoroughly. Add spray additive near the end of the filling process to minimize foaming. Always maintain adequate agitation during application and use the tank mix promptly.

### APPLICATION

**1. CEREAL GRAINS (WHEAT, BARLEY, OATS, MAIZE AND SORGHUM), PULSES (LUPINS, CHICKPEAS, FABA BEANS, FIELD PEAS, LENTILS, PIGEON PEAS, NAVY BEANS AND MUNG BEANS), OILSEEDS (SOYBEANS, SUNFLOWERS AND PEANUTS) AND COTTON:**

**A, B, C, D: Valor 500 WG Herbicide applied as a pre-plant burndown “spike” with glyphosate OR with either paraquat or a diquat/paraquat mixture (Table A), Valor 500 WG Herbicide applied as a burn down for control of volunteer cotton (Table B), Valor 500 WG Herbicide applied as a layby application for weed control in COTTON (Table C) & Valor 500 WG Herbicide applied pre-sowing or post sowing pre-emergent to provide enhanced knockdown and residual weed control in summer crops (Table D).**

Apply in a minimum of 80 L spray solution per hectare. Refer to the Directions for Use and General Instructions of the knockdown herbicide label. As VALOR is a contact herbicide, coverage is important. Performance of VALOR as a knockdown or with a partner on weeds or on volunteer cotton may be reduced with large droplets and poor coverage. Air induction nozzles that deliver coarse droplets at high travelling speeds, low pressure and low water rates may reduce coverage and herbicide performance. Air induction nozzles can produce variable results when used with oil. **DO NOT** use air induction nozzles with a spray oil such as Hasten. Best results with VALOR

are achieved with coarse droplets produced by wide angle flat fan or twin jet nozzles. If the partner herbicide requires coarse droplets, then ensure high water volumes >80 L/ha are used.

### 2. SUGARCANE:

**E: Valor 500 WG Herbicide applied to enhance knockdown in mixtures with nonselective herbicides, eg. paraquat, glufosinate and also atrazine (Table E); and applied to provide enhanced knockdown and long term residual weed control (Table E).**

Apply in a minimum of 200 L spray solution per hectare. Refer to the Directions for Use and General Instructions of the knockdown herbicide label.

### 3. IRRIGATION CHANNEL BANKS AND DRAINAGE DITCHES

**F: Valor 500 WG Herbicide applied for enhanced knockdown and residual weed control in irrigation channel banks and drainage ditches (Table F).**

Apply in a minimum of 200 L spray solution per hectare. Refer to the Directions for Use and General Instructions of the knockdown herbicide label. As VALOR is a contact herbicide, coverage is important. Performance of VALOR as a knockdown or with a partner on weeds or on volunteer cotton may be reduced with large droplets and poor coverage. Air induction nozzles that deliver coarse droplets at high travelling speeds, low pressure and low water rates may reduce coverage and herbicide performance. Air induction nozzles can produce variable results when used with oil. **DO NOT** use air induction nozzles with a spray oil such as Hasten. Best results with VALOR are achieved with coarse droplets produced by wide angle flat fan or twin jet nozzles. If the partner herbicide requires coarse droplets, then ensure high water volumes >200 L/ha are used.

### SPRAYER CLEANUP

When cleaning spraying equipment, wear cotton overalls buttoned to the neck and wrist and elbow-length chemical resistant gloves. After Valor 500 WG is applied the following steps must be taken to clean the spray equipment.

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Add 1 litre of 3% household ammonia or similar alkaline based tank cleaner for every 100litres of water, circulate through sprayer for five minutes, then flush all hoses, booms, screens and nozzles for a minimum of fifteen minutes.

4. Drain tank completely.
5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for two minutes.
6. Remove all nozzles and screens and rinse them in clean water.

Equipment with Valor 500WG residue remaining in the system may result in crop injury to the subsequently treated crop.

## COMPATIBILITY

Valor 500WG Herbicide is compatible with: Glyphosate 450, Roundup Powermax Herbicide, Roundup Ready Herbicide with Plant Shield, Roundup Max Herbicide by Monsanto, Nufarm Weedmaster DST or Nufarm Weedmaster Argo Dual Salt Technology Herbicide, SpraySeed 250 Herbicide or Nufarm Revolver Herbicide, Gramoxone Herbicide or Nufarm Nuquat 250 Non-residual Knockdown Herbicide, 2,4-D Ester Herbicide or Nufarm Estericide Xtra 680 or Nufarm Estericide 800 Herbicide, Nufarm Amicide Advance 700 Selective Herbicide, Hasten\*, Kwickin\* and Banjo® at 0.5- 1L/100L and with Uptake\* at 0.5L/100L.

## RESISTANT WEEDS WARNING GROUP G HERBICIDE

Valor 500 WG Herbicide is a member of the N-phenylphthalimides group of herbicides. The mode of action of Valor 500 WG Herbicide is to inhibit protoporphyrinogen oxidase. For weed resistance management, Valor 500 WG Herbicide is a Group G Herbicide. Some naturally-occurring weed biotypes resistant to Valor 500 WG Herbicide and other Group G 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 Valor 500 WG Herbicide or other Group G Herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Sumitomo Chemical Australia Pty Ltd accepts no liability for any losses that may result from the failure of Valor 500 WG Herbicide to control resistant weeds. Strategies to minimize the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant or local Department of Agriculture.

## RE-ENTRY

**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.

**DO NOT** allow entry onto treated areas until the spray has dried for low exposure activities such as irrigation and scouting, 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.

**DO NOT** allow entry onto treated areas for 6 days for high exposure activities such as harvesting, pruning, and training, 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 WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. **DO NOT** contaminate wetlands or watercourses with this product or used containers.

## STORAGE AND DISPOSAL

Store in a locked room or place away from children, animals, food, feedstuffs and fertilizers. Store in the closed, original container in a dry, cool well-ventilated area out of direct sunlight. **DO NOT** store in or expose product to wet conditions. Rough handling of product may cause breakage of water soluble bags, especially at low temperatures.

**DO NOT** dispose of undiluted chemicals on-site. Break, crush or puncture sachets and containers 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.

## SMALL SPILL MANAGEMENT

Sweep up material and contain in a refuse vessel for disposal in the same manner as for containers (see Storage and Disposal).

## SAFETY DIRECTIONS

### Hazards

Poisonous if absorbed by skin contact or swallowed. May irritate the eyes, nose and throat, and skin.

### Precautions

Avoid contact with eyes and skin. Open sachets only as needed.

## Mixing or Using

When opening the container, preparing spray and using the prepared spray, wear cotton overalls over normal clothing, buttoned to the neck and wrist and a washable hat and elbow-length chemical resistant gloves and face shield.

## After Use

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 and face shield and contaminated clothing.

## SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet (SDS) obtained from Sumitomo Chemical Australia Pty Ltd.

## FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia Tel. 131126; New Zealand 0800 764 766.

**WARNING: CONTAINS FLUMIOXAZIN WHICH CAUSES BIRTH DEFECTS IN LABORATORY ANIMALS. WOMEN OF CHILD BEARING AGE SHOULD AVOID CONTACT WITH FLUMIOXAZIN**

## IMPORTANT NOTICE

These goods are to be used only for the purpose and as specified on the label, and are not suitable for any other purpose. To the fullest extent permitted by law, we do not accept or bear any liability on any basis for any loss, damage, cost or expense, arising in any way, directly or indirectly, in connection with the goods.

APVMA Approval No: 61622/119531

Batch No:

Date of Manufacture:

|  |  |
|--|--|
| <b>THIS PRODUCT IS NOT CONSIDERED TO BE<br/>A DANGEROUS GOOD UNDER THE<br/>AUSTRALIAN CODE FOR THE TRANSPORT OF<br/>DANGEROUS GOODS BY ROAD AND RAIL</b> |  |
| <b>IN A TRANSPORT<br/>EMERGENCY<br/>DIAL 000<br/>POLICE OR FIRE<br/>BRIGADE</b>  | <b>FOR SPECIALIST ADVICE IN<br/>EMERGENCY ONLY<br/>PHONE 1800 024 973<br/>TOLL FREE - ALL HOURS -<br/>AUSTRALIA WIDE</b> |

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