Now with all new winter crop uses

UPDATED 2023

VALOR® EZE
480 SC HERBICIDE

VALOR®
500 WG HERBICIDE

DETAILS OF NEW VALOR® EZE LIQUID FORMULATION INSIDE

NORTHERN CROPPING ZONE TECHNICAL GUIDE

RESIDUAL AND BURNDOWN CONTROL WITH FLEXIBILITY

VALOR COTTON CONSCIOUS

SUMITOMO CHEMICAL
AgroSolutions Division

Overview

Valor 500WG and Valor EZE 480SC liquid are both highly flexible Group 14 herbicides developed locally by Sumitomo Chemical Australia. Both are registered for a range of new uses making them suitable for Northern cropping zones including pre-emergence weed control prior to planting winter crops and lucerne, as well as for fallow, fence line and irrigation channel maintenance.

These new uses are in addition to a wide range of already established practices prior to summer crops, sugarcane and as a knockdown spike.

The active ingredient in Valor and Valor EZE has several unique attributes making it one of the most versatile compounds in this group.

- Valor contains 500 g/kg of flumioxazin as a wettable granule (WG).
- Valor EZE contains 480 g/L of flumioxazin as an suspension concentrate (SC).
- PPO Group 14 mode of action with zero resistance recorded in Australia to date.
- New fallow establishment and pre-sowing residual registrations prior to winter crops and lucerne.
- Rapid burndown and excellent activity as a knockdown spike.
- Robust long-term residual control of weeds on fence lines and channel banks.
- Strength against difficult to control weeds
- Compatible with a wide range of knockdown and pre-emergent herbicides.

Valor WG is packaged in water-soluble bags and offers reduced risk of exposure during mixing.

Valor EZE is available in Easy Pour 10 L drums.

MODE OF ACTION AND CHEMICAL PROPERTIES

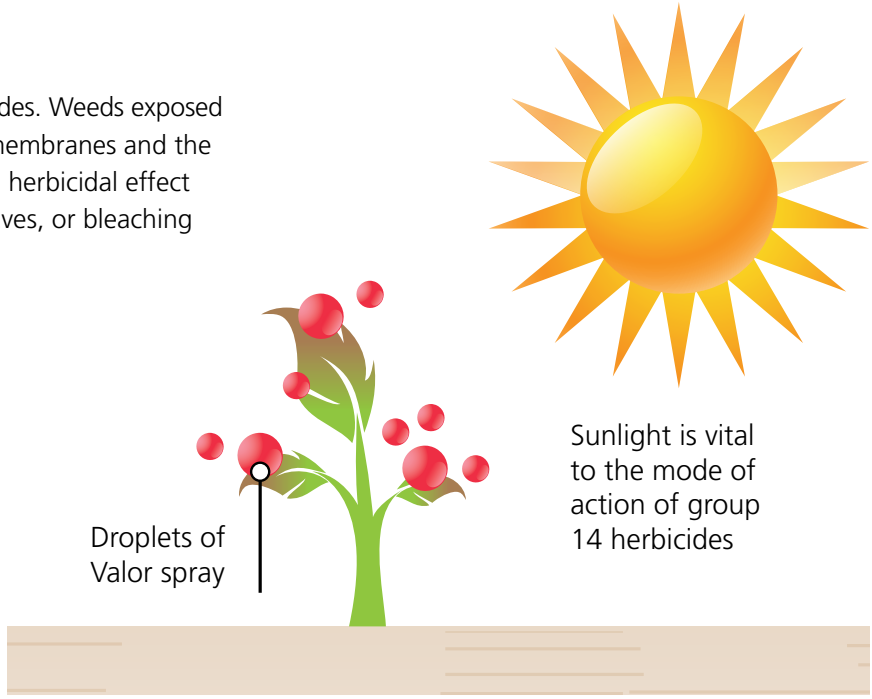
Properties	
Herbicide Mode of Action group	14
MoA	Inhibitor of protoporphyrinogen oxidase (PPOs)
Uptake pathway	Foliar and epicotyl
Systemic activity	None
Speed of action	Rapid
Soil degradation	DT_{50} : 17 to 21 days
Volatility	Non-volatile
UV stability	Very stable
Soil mobility	Koc = 889 (slightly mobile)
Mammalian toxicity	Oral LD_{50} (mg kg-1) = >5000 (low risk)

How do Valor and Valor EZE work?

FOLIAR UPTAKE

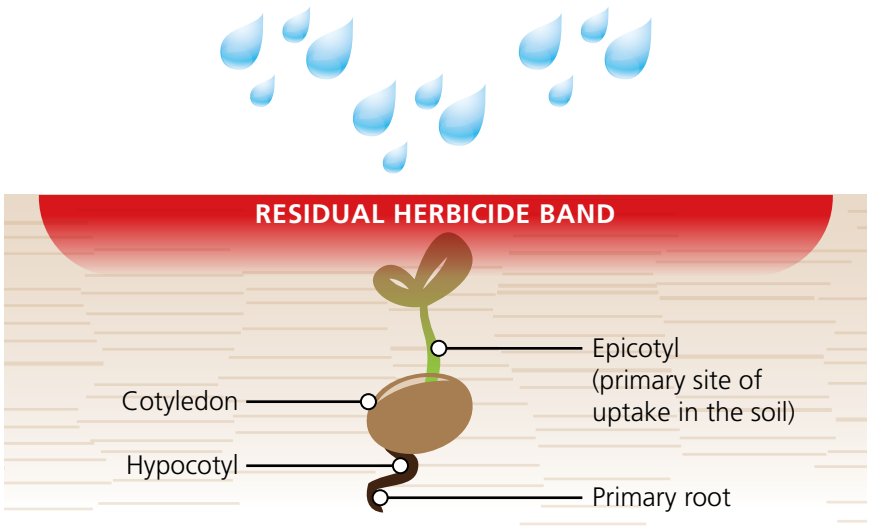
Valor and Valor EZE are group 14 herbicides. Weeds exposed die because of disruption to plant cell membranes and the subsequent leakage of cell content. The herbicidal effect expresses rapidly as browning of the leaves, or bleaching as it is sometimes referred to.

Brownout is caused by the inhibition of photosynthesis and bleaching of the chloroplasts. Affected leaves turn yellow soon after application, followed by desiccation, necrosis and browning. Sunlight is vital to initiate symptoms and instrumental to herbicidal efficacy because of its role in the formation of the chemical agent responsible for the cell wall disruption.



RESIDUAL UPTAKE

Residual control occurs as the weeds begin to germinate and the active ingredient is taken up by the epicotyl, where it accumulates. Symptoms then occur as soon as the shoot breaks through the soil surface and is exposed to sunlight. With higher residual rates being used with a knockdown mixing partner, emerged weeds can sometimes suffer antagonism under high light intensity. Germinating weeds will normally not be seen as sunlight filters into the top layer of soil activating the herbicide and killing weeds before they emerge.



Summer crop weed control

Valor and Valor EZE are both registered for long lasting pre-emergence weed control in fallow and prior to planting summer crops and feature:

- Summer crop residual registrations include prior to planting cotton, sorghum, soybeans, mungbeans, peanuts, pigeon peas, navy beans and sunflowers.
- Short plant-back intervals with minimal rainfall requirements.
- Flexibility to alter cropping plans when opportunities or contingencies require it.
- Robust residual control of difficult weeds such as fleabane, Feathertop Rhodes grass and milk/sow thistle.
- Outstanding resistance management tool for summer cropping systems over-reliant on glyphosate and other older chemistry.
- Excellent fit in Roundup® Ready Flex cotton and XtendFlex® cotton systems.
- They can be used more than once in a season as long as minimum plant-back and rainfall requirements are observed.

SUMMARY OF SUMMER CROP USES

Crop Situation	Use-timing	Valor WG rate per ha	Valor EZE rate per ha	Weeds	Comments
Fallow	Fallow commencement (residual weed control)	210 g – 280 g	220 mL – 290 mL	Residual and burndown control of a range of weeds. See weeds table or label.	Ideally applied following crop harvest when commencing fallow period.
Pre-plant burndown spike	Prior to sowing a range of summer crops	30 g plus glyphosate or paraquat	30 mL plus glyphosate or paraquat	For increased speed of brownout and improved final control of a range of weeds. See weeds table or label.	Apply as a spike with non-selective herbicides.
Soybeans Peanuts	PSPE	210 g – 280 g	220 mL – 290 mL	Wide range of summer and winter broadleaf and grasses 6-8 weeks control. Good on shallow germinating weeds like like: Feathertop Rhodes grass, fleabane and milk/sow thistle. Some large seeded deep germinating grasses like liverseed and barnyard may get through dry surface soil. Some deep germinating broadleaf like wireweed and caltrop may germinate through cracks in soil. These may require follow up application of knockdown herbicides.	Needs 15 mm rain to activate and incorporate within 3 weeks. For PSPE apply within 2 days of planting as rain at germination can wash herbicide in around seed and cause phytotoxicity. Efficacy reduced by: Soil movement, trash, big clods and long dry conditions. Can be mixed with other more soluble herbicides like S-metolachlor to improve deep seeded grass control.
Pigeon Pea Maize Sorghum Navybean	One month prior to sowing				
Cotton Sunflower Mungbeans	Two months prior to sowing				

Read label for full details
See weeds table for full list of weeds controlled.
Always add Hasten® spray oil for enhanced knockdown of emerged weeds

MINIMUM RE-CROPPING INTERVALS (MONTHS)

Crop	Valor WG g/ha	30	120	180	210 - 280	560 - 700
	Valor EZE mL/ha	30	125	190	220 - 290	580 - 730
Faba beans, Peanuts, Soybean		0	0	0	0	5
Chickpeas, Field peas, Pigeon Pea, Maize, Navy beans, Sorghum		0	0	0	1	
Wheat		0	0	1	2	
Vetch		0	1	1	2	
Cotton, Sunflowers, Mungbeans		0			2	8
Durum Wheat		0	1	1	3	
Barley, Lupins, Oats, Triticale		0	1	2	3	
Lentils		0	0	3	4	
Lucerne (seedling), Medic, Sub Clover		0	3	4	6	
Canola		5	9	9	9	12

Note: 15 mm of rainfall required in addition to minimum time-period for all residual rate re-cropping intervals.

RESISTANCE MANAGEMENT AND CONTROL OF HERBICIDE TOLERANT VOLUNTEERS

For resistance management, Valor and Valor EZE are Group 14 herbicides with the PPO mode of action. To date Australia has no recorded cases of resistance to this mode of action making Valor and Valor EZE ideal choices to manage weeds with known resistance to other modes of action.

Valor and Valor EZE are also registered at 45 g and 45 mL per hectare for the control of Roundup Ready Flex volunteer cotton.

Valor and Valor EZE are excellent choices for helping control Roundup Ready Flex cotton volunteers.

RULES OF THUMB FOR RESIDUAL APPLICATION

1. Valor and Valor EZE need 15 mm + of rain or overhead irrigation to incorporate and activate.
2. Avoid excessively cloddy soil with high trash cover.
3. Remove emerged weeds prior to application with a non-selective herbicide if weed coverage is greater than 20%.
4. Use a minimum of 80 L per ha of water. Use more when heavy trash or stubble cover is present.
5. Significant rainfall following application and sowing can heighten the chance of negative crop effects, particularly in flood irrigated, watered-up scenarios.

EXCELLENT CROP SAFETY ON SUMMER CROPS

Narrabri.
Sorghum and cotton planted minimum till.
Valor applied at 280 g/ha 30 days pre-sowing.

Photo to the right: 26 days after sowing (No observable phtyotoxic effect). Sumitomo recommend not applying Valor at residual rates within 2 months of planting cotton and 1 month of planting sorghum to ensure no risk of crop effect.

EXTENDED WEED CONTROL IN SUMMER FALLOW

Darling Downs.

Photo below: Untreated control.

Photo below: 12 weeks after treatment.
Valor plot is still weed free with the exception of 2 healthy sorghum plants illustrating the selectivity of Valor to sorghum.

OUTSTANDING WEED CONTROL IN PIGEON PEA

Condamine Plains, S. Qld.
Valor applied just prior to sowing.

Photo to the right: 6 weeks after treatment Untreated plot shows significant Amaranth pressure, while Valor treated area is weed free.

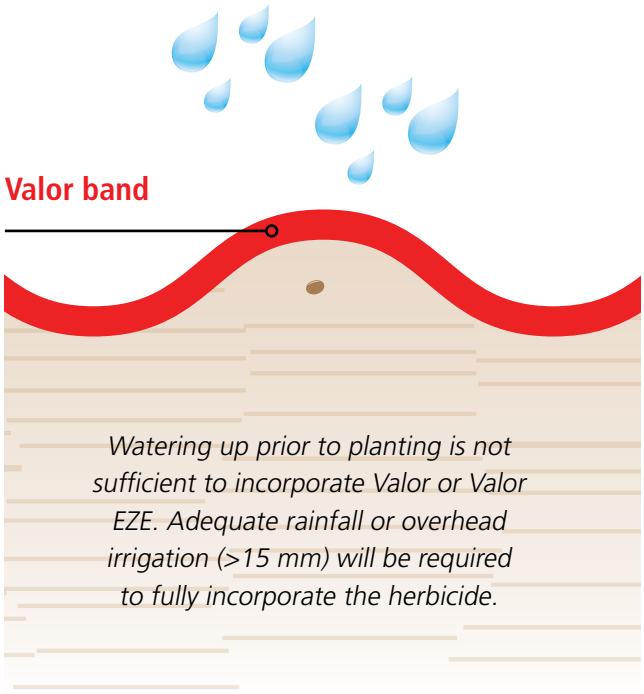
WATERING UP

Flood irrigation will not incorporate Valor on the top of the bed. If there has been no rain, Valor and Valor EZE will remain on the surface of the soil while the soil underneath becomes saturated. If rain then falls as crop emergence is taking place, the water can pool on the surface and seedlings can be exposed to a high concentration of Valor in water. This may cause crop damage particularly if accompanied by cooler temperatures that slow down emergence.

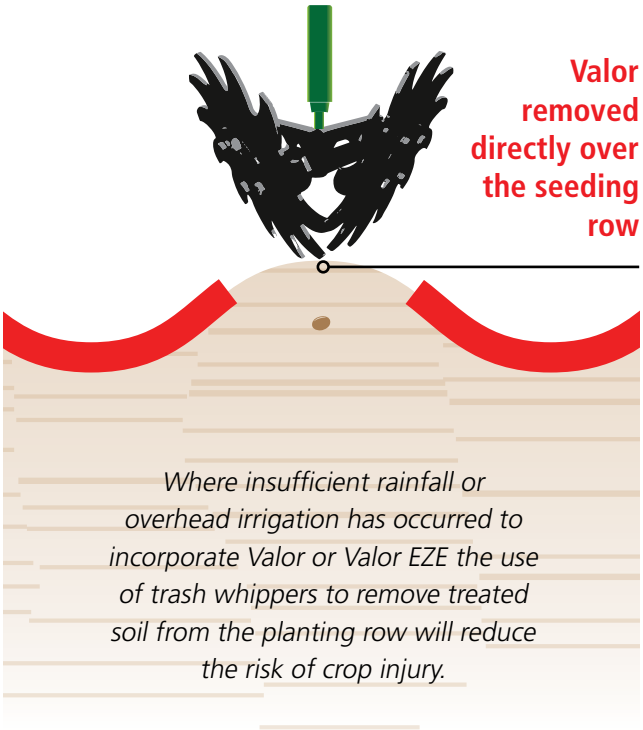
If there is doubt about when rainfall may occur prior to planting, it may be preferable to apply residual rates of Valor and Valor EZE two or three months before sowing to allow incorporation by winter or spring rain. This will reduce germination of hard to control weeds like Feathertop Rhodes grass prior to sowing. Knockdown rates of Valor and Valor EZE can still be applied just prior to sowing.

Pigeon peas often do not emerge well if they are sown dry, then watered up, if rain also falls during emergence. If Valor or Valor EZE remain unincorporated on the soil surface in this situation significant damage can also result. It is safer to flood irrigate first then sow the pigeon pea into moisture.

If insufficient overhead irrigation or rain to incorporate the herbicide has occured prior to planting, then trash whippers or wide tynes that move about 1 cm of soil (with the herbicide) away from the seeding zone may reduce the risk of damage from heavy rain falling at crop emergence.



Watering up prior to planting is not sufficient to incorporate Valor or Valor EZE. Adequate rainfall or overhead irrigation (>15 mm) will be required to fully incorporate the herbicide.



Where insufficient rainfall or overhead irrigation has occurred to incorporate Valor or Valor EZE the use of trash whippers to remove treated soil from the planting row will reduce the risk of crop injury.

Winter crop weed control

Valor and Valor EZE are now registered for pre-emergence residual weed control when planting winter crops and lucerne, including when planting wheat (excluding durum varieties), faba beans, chickpeas, field peas and lentils. In these situations Valor and Valor EZE provide:

- Short plant-back intervals prior to other winter and summer crops with minimal rainfall requirements.
- Flexibility to alter cropping plans when opportunities or contingencies require it.
- Control and suppression of a range of key grass and broadleaf weeds
- Ability to use more than once in a season if minimum plant-back and rainfall requirements are observed.
- Excellent resistance management for winter cropping systems where resistance is present to other herbicide groups. No known resistance has been identified to Valor and Valor EZE in Australia.
- New registration for fallow commencement, providing long lasting residual weed control post-harvest.

VALOR AND VALOR EZE USES IN NORTHERN CROPPING ZONES

Crop Situation	Use-timing	Valor WG Rate per ha	Valor EZE Rate per ha	Weeds	Comments
Fallow	Fallow commencement (residual weed control)	210 g - 280 g	220 - 290 mL	Residual and burndown control of a range of weeds. See weeds table or label.	Ideally applied following crop harvest when commencing fallow period.
Pre-plant burndown spike	Prior to sowing a range of winter and summer crops	30 g	30 mL	For increased speed of brownout and improved final control of a range of weeds. See weeds table or label.	Apply as a spike with non-selective herbicides.
Wheat# and Lentils	IBS (Incorporated By Sowing)	120 g	125 mL	Residual suppression of a range of weeds. See weeds table or label.	Control emerged weeds with a knockdown herbicide before applying Valor. Sowing (IBS) should occur within 7 days of application. Residual control may be reduced unless 25mm of rain occurs within 3 weeks following sowing.
Wheat#		120 g + 2 L Triflur* X + 3.2 L Avadex* Xtra	125 mL + 2 L Triflur X + 3.2 L Avadex Xtra	Residual control and suppression of a range of weeds. See weeds table or label.	
Faba beans, Chickpeas and Field peas		180 g	190 mL	Residual suppression of a range of weeds. See weeds table or label.	
Lucerne (at least 12 months old)	Use after heavy grazing, cutting or application of Paraquat or Paraquat/ Diquat for winter cleaning	280 g	290 mL	Residual control and suppression of a range of weeds. See weeds table or label.	Only apply to pure lucerne stands. Do not apply to lucerne with greater than 15cm of growth.

*Read label for full details. #Except Durum varieties *Registered Trademark*

Pre-plant spike

One of the key uses of Valor and Valor EZE is as a spike for glyphosate and paraquat-based herbicides – for the control or burndown of unwanted weeds before planting a range of winter broadacre and summer row crops. Either can be used immediately prior to sowing wheat, oats, barley, chickpeas, fababeans, field peas, lentils, lupins, maize, mungbeans, sorghum, soybeans, navy beans, pigeon peas, cotton, peanuts and sunflower.

- Valor and Valor EZE offer consistent control of a wide variety of broadleaf weeds, as well as certain grasses.
- Valor and Valor EZE have good knockdown strength against a number of problem weeds including wild radish (*Raphanus raphanistrum*), vines (*Ipomoea* spp.) and wireweed (*Polygonum aviculare*).
- Valor and Valor EZE assist in seed bed preparation through rapid removal of existing weeds when mixed with a non-selective herbicide prior to sowing.
- At 30 g and 30 mL per ha Valor and Valor EZE have negligible soil residual carryover and with the exception of canola have no plant-back restrictions (*refer to table on page 5*).

SUMMARY OF PRE-PLANT SPIKE USES

Rate	Use-timing	Crops		Weeds	Comments
Valor 30 g/ha or Valor EZE 30 mL/ha Plus glyphosate or paraquat Plus Hasten Spray Oil	Pre-plant enhanced burndown	SUMMER: Cotton Sorghum Maize Soybeans Peanuts Mungbeans Navybeans Pigeon pea Sunflower	WINTER: Wheat Barley Oats Chickpeas Fababeans Field peas Lentils Lupins	2-6 leaf weeds Wide range of summer and winter broadleaf	Zero plant-back except for canola (See re-cropping table)
Valor 45 g/ha or Valor EZE 45 mL/ha Plus Hasten Spray Oil	Pre-plant volunteer cotton burn-down including Roundup® Ready	Sorghum Maize Soybean Mungbean Sunflower		Will control small broadleaf weeds	Allow at least one hour before sowing. Do not use post sowing.
	Pre-plant or PSPE volunteer cotton burn-down including Roundup® Ready	Cotton			Allow at least one hour before sowing, or apply PSPE up to two days before crop emergence.

Read label for full details. Refer to weeds table on page 16 for full list of weeds controlled.

Rules of thumb for knockdown spike

1. Apply in 100 L water per ha.
2. Always use Hasten spray oil.
3. Use flat fan nozzles.
   - Air induction nozzles can give poor coverage when oil is used.
4. Target appropriate sized weeds.
   - Targeting young/small weeds gives best results.
   - Avoid older established plants (check roots).
5. Use correct rate of mixing partner.

Roundup PowerMax 1 L + Valor 30 g/ha + Hasten 0.5%, 35 DAA.

VALOR AND VALOR EZE FOR COTTON VOLUNTEERS

Valor and Valor EZE provide an outstanding choice where a non-volatile spike is required to control Roundup Ready Flex cotton volunteers and other summer weeds.

Valor and Valor EZE deliver robust control of cotton volunteers up to 4 leaf stage including Roundup Ready Flex volunteers.

Valor and Valor EZE give robust control of key summer weed species such as peachvine, milk/sow thistle and volunteer cotton. when used with knockdown sprays.

- Valor and Valor EZE's low volatility and contact action make them a safer option for summer fallow spraying in cotton growing areas, with the risk of damage to nearby cotton crops minimised.
- Valor and Valor EZE are not limited by restrictive environmental conditions that highly volatile herbicides require to avoid off target spray damage. Waiting for these conditions can take over a week in summer with the weeds still growing.

This makes them valuable summer herbicides for cotton growers and their neighbours.

- ✔ **Be conscious of cotton and other crops sensitive to 2,4-D.**
- ✔ **Be conscious of your neighbours.**
- ✔ **Be conscious that Valor and Valor EZE are non-volatile and only causes a slight risk of drift.**
- ✔ **Be conscious of weather conditions during spraying even when using Valor and Valor EZE.**

Cotton lay-by

Valor and Valor EZE are valuable tools for the control of weeds in emerged cotton. A strategic lay-by application can control difficult or resistant weeds that may have escaped previous control measures. Weed escapes, if left unchecked can rob valuable nutrients and moisture from the crop as well as harbouring insect pests. Applied selectivity to cotton combined their residual and contact activity make Valor and Valor EZE ideal lay-by herbicides in cotton.

SUMMARY OF COTTON LAY-BY USE

Rate	Use-timing	Crops	Weeds	Comments
Valor 60 - 90 g/ha or Valor EZE 60 - 95 mL/ha Plus Hasten spray oil	Lay-by application	Cotton	Hard to kill broadleaf weeds and vines such as peachvine and bladder ketmia 2-12 leaf depending on species	Use shielded sprayer, avoid contact with green leaves and green bark.

Read label for full details.
Refer to weeds table on page 16 for full list of weeds controlled.

- Apply as a shielded spray underneath the cotton foliage and to the inter rows to control late germinating weeds, or already emerged weeds.
- Best results are obtained if emerged weeds are less than 6 leaf stage.
- Do not spray until cotton plants are 40 cm high.
- Valor and Valor EZE will burn any cotton foliage or green stems that is contacted by the spray. Apply when lower stems are at brown bark stage.
- Ideal herbicide resistance management options when used in the Roundup Ready Flex and Extend Flex growing systems.
- Do not apply in conditions conducive to drift.

Lay-by application using shielded sprayer.

Channel banks and drainage ditches

Valor and Valor EZE are highly valuable and safe tools for residual weed control and enhanced knockdown in irrigation channel banks and drainage ditches.

For best results:

- Channels should be empty at time of application.
- Needs 15 mm of rain within 3 weeks after application to incorporate (once this occurs – its ok to fill channel and irrigate).
- If adequate rain has not fallen in time, then fill channel with water, allow to stand for 24 hrs, drain water off to waste and refill channel for irrigation.
- Remove weeds with a separate knockdown herbicide application prior to applying Valor or Valor EZE if weed coverage is greater than 20%.

Note: Valor and Valor EZE are not taken up by plant roots, therefore there is no risk of residues in any emerged crop through soil from the channel inadvertently moving into the field.

SUMMARY OF CHANNEL BANK USES

Rate	Use-timing	Weeds	Comments
Valor 560 - 700 g/ha or Valor EZE 580 - 730 mL/ha Plus glyphosate or paraquat Plus Hasten spray oil	Channel banks	Wide range of summer and winter broadleaf and grasses Several months control	Channel must be empty at spraying Needs 15 mm rain to activate and incorporate within 3 weeks. If dry, fill channel for 24 hours, drain to waste, then irrigate.

Read label for full details.
Refer to weeds table on page 16 for full list of weeds controlled.

CHANNEL BANK TRIAL – RED CRACKING CLAY SOIL, SWAN HILL, VIC

Photos: 155 days after treatment.

Untreated.

Alternative knockdown and residual herbicide.

Valor 700 g/ha.

Fallow commencement

An ideal time to apply Valor at residual rates is after harvest and at the commencement of a fallow period where weed control of 2-3 months can be achieved, while still providing the flexibility for planting a range of crops and pastures the following autumn or spring.

Note: Canola is one of the only exceptions to these short plant-back periods, requiring a 9 month re-cropping interval when used at residual rates. This means applying Valor or Valor EZE immediately following canola harvest is the ideal use situation as it is very unlikely canola will be sown in that field again the following autumn. As most cropping programs are carefully planned well in advance, Valor or Valor EZE can also be used with confidence following other winter crops where canola is not planned to be grown the following season.

VALOR OR VALOR EZE USED AT RESIDUAL RATES IN FALLOW REDUCES THE NEED FOR MULTIPLE SUMMER KNOCKDOWN APPLICATIONS

Even one application of glyphosate alone can be costly when application costs are included, and once tank-mix partners such as 2,4-D amine, 2,4-D ester or fluroxypyr are added, the applied cost can be even more significant.

Whilst 210 g/ha of Valor or 220 mL/ha of Valor EZE plus glyphosate or paraquat costs around $45/ha including application, the length of control achieved can remove the need for a second or even a third knockdown application, saving growers valuable time and money. Reducing applications also removes the need to find multiple safe application windows, meeting buffer zone restrictions and the need to have extra labour on hand on multiple occasions. Valor and Valor EZE are also non-volatile and can be used at all times of the year, even in herbicide control zones such as those present over summer in Victoria.

Fence lines

Valor and Valor EZE are valuable tools for the control of weeds on fence lines and non-crop boundary areas. Fence lines act as a sink for weed seeds, becoming a significant source of in-field contamination, so practicing good hygiene by using Valor or Valor EZE for long term weed control makes excellent sense. With a Group 14 PPO mode of action Valor and Valor EZE are also an ideal choice for resistance management on fence lines, helping reduce the pressure on valuable knockdown chemistry and extending their life for in field use.

Valor and Valor EZE used along fence lines and non-crop boundary areas can provide extended weed control for up to 12 months.

Lucerne

When used at 280 g/ha and 290 mL/ha respectively, Valor and Valor EZE offer robust long term weed control in established lucerne. Applied in autumn prior to the main germination of winter weeds they will provide up to 16 weeks residual weed control in lucerne, improving dry matter production and feed quality. A short 4-week WHP on grazing lucerne needs to observed, however.

For best results when applying to established lucerne:

- Apply after much of the growth has been removed by grazing or cutting to maximise soil coverage.
- Apply evenly to predominantly bare earth, before significant ground cover occurs from germinating winter weeds.
- Time the application in front of a moderate rainfall event or irrigation to incorporate and activate the herbicide.
- Valor and Valor EZE should be applied in a tank mixture with either paraquat or a paraquat/diquat mixture to control weeds that have already emerged.
- Valor and Valor EZE should be applied using a minimum of 80 L/ha of water.

Applying Valor or Valor EZE to established lucerne in autumn before winter weeds germinate will maximise weed control and productivity of your lucerne stand.

Weeds controlled

Valor controls an extensive range of weeds. See table below where weeds are listed by registered use pattern and rate.

Weed species	Valor WG g/ha	30	60 - 90	120	120	180	210 - 280	280	560 - 700	700
	Valor EZE mL/ha	30	60 - 95	125	125	190	220 - 290	290	580 - 730	730
	Use situation	Spike	Knockdown – Lay-by application cotton	Wheat and Lentils#	+ 2 L/ha Triflur® X + 3.2 L/ha Avadex® Xtra (Wheat)#	Faba beans, Chickpeas and Field peas	Fallow commencement	Lucerne	Channel Banks	Fence lines
Amaranthus spp.		✔	✔							
Annual ryegrass (*Lolium rigidum*)					✔			✔		✔
Annual polymeria (*Polymeria pusilla*)		✔	✔							
Barley grass (*Hordeum leporinum*)					✔▲					
Barnyard grass (*Echinocloa colona*)							✔	✔▲	✔	✔
Balsam pear (*Mormordica charantia*)									✔	
Bellvine (*Ipomoea plebeia*)		✔	✔							
Bifora (*Bifora testiculata*)						✔▲				
Black bindweed (*Fallopia convolvulus*)		✔		✔▲		✔▲				
Black pigweed (*Trianthema portulacastrum*)		✔	✔							
Bladder ketmia (*Hibiscus trionum*)		✔	✔				✔		✔	
Bluetop/Billygoat weed (*Ageratum houstonianum*)							✔		✔	
Bromegrass (*Bromus* diandrus)					✔▲					
Calopo (*Calopogonium mucunoides*)							✔		✔	
Caltrop/Yellowvine (*Tribulus terrestris* & *T. micrococcus*)		✔	✔		✔▲		✔		✔	✔
Canola volunteers (*Brassica napus*)		✔		✔▲	✔▲	✔▲				
Capeweed (*Arctotheca calendula*)		✔		✔▲	✔▲	✔▲		✔▲		✔
Carrot weed (*Cotula australis*)								✔		✔
Clammy goosefoot (*Chenopodium pumilio*)								✔▲		✔
Common chickweed (*Stellaruia media*)				✔▲	✔▲	✔▲				
Corn gromwell (*Buglossoides anvensis*)					✔					
Cow/Peach vine (*Ipomoea lonchophylla*)		✔	✔						✔	
Crassula (*Crassula sieberiana*)				✔▲	✔▲	✔▲				
Crowsfoot (*Eleusine indica*)							✔		✔	
Dead nettle (*Lamium amplexicaule*)		✔			✔▲			✔		✔
Doublegee *(Emex australis)*		✔								
Erodium/Storksbill (*Erodium cicutarium*)		✔								✔
False castor oil (*Datura stromonium*)		✔								
Fat hen (*Chenopodium album*)								✔▲		✔
Feathertop rhodes grass (*Chloris virgata*)							✔	✔▲	✔	✔
Fleabane *(Conyza bonariensis)*						✔▲	✔	✔	✔	✔
Fumitory (*Fumaria* spp.)					✔	✔▲				
Green summer grass (*Brachiaria subquandripara*)									✔	
Heliotrope (*Heliotropium europaeum*)								✔▲		✔
Indian hedge mustard (*Sisymbrium orientale*)				✔▲	✔▲	✔▲				
Ipomea spp.		✔	✔				✔		✔	
Lesser loosestrife (*Lythrum hyssopifolia*)										✔
Liverseed grass (*Urochloa panicoides*)		✔								
Lucerne (seedling only) (*Medicago sativa*)		✔								
Marshmallow (*Malva parviflora*)		✔						✔▲		✔▲
Medicago spp.		✔								
Milk/Sow thistle (*Sonchus oleraceus*)							✔		✔	
New Zealand spinach (*Tetragonia tetragonioides*)				✔▲	✔▲	✔▲				
Milk weed (*Euphorbia heterophylla*)							✔		✔	
Noogoora burr (*Xanthium occidentale*)		✔	✔							
Oats (*Avena sativa*)					✔					
Paradoxa grass (*Phalaris paradoxa*)					✔					
Paterson's curse (*Echium plantagineum*)		✔								
Phyllanthus spp.							✔		✔	
Prickly lettuce (*Lactuca serriola*)				✔▲	✔▲	✔▲				✔
Red pigweed (*Portulaca oleracea*)		✔	✔				✔		✔	
Redroot amaranth (*Amaranthus retroflexus*)		✔							✔	
Rough poppy (*Papaver hydridum*)					✔	✔▲				
Sand fescue (*Vulpia fasciculata*)					✔					
Seedling lucerne (*Medicago sativa*)		✔								
Shepherd's purse (*Capsella* bursa-*pastoris*)		✔						✔		✔
Sicklepod (*Cassia obtusifolia*)							✔		✔	
Silver grass (*Vulpia bromoides*)					✔			✔		✔
Slender celery (*Ciclospermum leptophyllum*)						✔▲				
Speedwell (*Veronica* spp.)					✔▲					
Sowthistle (*Sonchus oleraceus*)		✔	✔	✔▲	✔▲	✔▲		✔		
Spiked malvastrum *(Malvastrum americanum)*			✔							
Spurred vetch (*Vicia monantha*)		✔								
Square weed (*Spemacoce latiflia*)							✔		✔	
Stinging nettle (*Urtica urens*)								✔▲		✔▲
Subteraneum clover (*Trifolium subterraneum*)		✔						✔▲		
Summer grass (*Digitaria cilliaris*)							✔		✔	
Sunflower (*Helianthus annuus*)		✔								
Tarvine (*Boerhavia dominii*)		✔								
Three horned bedstraw (*Galium tricornatum*)				✔▲	✔▲	✔▲				
Toadrush (*Juncus bufonius*)				✔▲	✔▲	✔▲				✔
Turnip weed (*Rapistrum rugosum*)		✔								✔
Volunteer cotton *(including Roundup Ready varieties)*		✔*								
Wild radish (*Raphanus raphanistrum*)		✔		✔▲	✔▲	✔▲				
Wild rose (*Cleome aculeata*)							✔		✔	
Wild oats (*Avena* spp.)					✔					
Winter grass (*Poa annua*)					✔			✔		✔
Wireweed (*Polygonum aviculare*)		✔		✔▲	✔	✔▲				
Yellow burr weed (*Amsinckia* spp.)					✔▲					

✔▲ = *Suppression only* ✔ = *Control* *# Not durum varieties* **45 g and 45 mL registered rate for volunteer cotton including Round Ready varieties.*

General application guidelines

MIXING AND HANDLING

For ease of use **Valor WG** is conveniently packed into 350 g water soluble sachets, each in an outer foil envelope. Two carton sizes are available, a 1.75 kg carton (including 5 x 350 g sachets) and a 10.5 kg carton (including 6 x 1.75 kg foil envelopes each with 5 x 350 g water soluble bags). Simply tear the foil envelope starting from the notch and empty the contents into the spray tank. Avoid contacting the sachet with wet hands.

When pre-mixing chemicals in a separate mixing vessel, concentration and saturation time might limit the number of sachets that can be added to the vessel at a time. Users are advised to add one sachet at a time, while employing strong agitation, to determine the optimal mixing regime.

Valor EZE is packed in 10 L drums and users are advised to keep the agitation system engaged and mix thoroughly until fully dispersed.

WATER PH

Valor and Valor EZE have a reduced half life in high pH water due to alkaline hydrolysis. At pH 8 or above the half life of Valor and Valor EZE can be as low as 2 hours. At pH 7 or below the spray mixture will be stable beyond 24 hours. In the case of high pH water Sumitomo recommend buffering the spray water to pH 7 or below.

DECONTAMINATING SPRAY EQUIPMENT

Equipment with Valor or Valor EZE residue remaining in the system may result in crop injury to a subsequently treated crop.

Spray equipment, including mixing vessels and nurse tanks, must be cleaned following application. After Valor or Valor EZE is applied, it is important to follow the decontamination steps as outlined on the Valor label.

To enhance the effective removal of Valor or Valor EZE from the spray system, add a tank cleaner such as All Clear™ DS or Kleenup™ Granular, DO NOT use ammonia. Follow the instructions on the product label for these products. All-Clear DS has very detailed instructions on how to achieve effective decontamination. Scan QR to watch video on decontamination:

RE-ENTRY

Do not enter treated areas until the spray has dried, unless wearing suitable protective clothing. Refer to the registered product label for details.

CHANNEL BANKS AND DRAINAGE DITCH APPLICATION

For application to channel banks and drainage ditches follow the general application guidelines above although make sure channels are completely empty of water at time of application.

COMPATIBILITY

Valor and Valor EZE are highly compatible formulations with no known incompatibilities. The herbicides and adjuvants listed below have been tested and proven as physically and biologically compatible with Valor and Valor EZE. Brand names are used, as alternative products containing the same actives, whilst likely to be compatible, were not tested.

	Compatibility status	
	Valor 500WG	Valor EZE 480SC
Amicide® 500	Yes	
Amicide® Advance 700	Yes	
Avadex® Xtra	Yes	Yes
Atrazine 900WG	Yes	
Balance®	Yes	
Basta®	Yes	
Boxer Gold®	Yes	
BS 1000	Yes	
Clincher® Gold	Yes	Yes
Colex® D		Yes
Crucial®	Yes	Yes
Diuron 900DF	Yes	
Dual® Gold	Yes	Yes
Du-Wett®	Yes	
Factor® WG	Yes	
Flame®	Yes	
Gesaprim® 900WG	Yes	Yes
Gramoxone® 250	Yes	Yes
Gramoxone® 360	Yes	Yes
Hasten®	Yes	Yes
Janitor® 700WG	Yes	
Kwickin®	Yes	
Kyte™ 700 WG	Yes	
LI-700®	Yes	
Nuquat®	Yes	Yes
Revolver™	Yes	
Roundup® CT	Yes	
Roundup® UltraMAX	Yes	
Roundup® Ready Herbicide	Yes	
Sakura®	Yes	Yes
Sencor®	Yes	
Sequence®	Yes	
Simazine 900WG	Yes	
Spinnaker® 700WG	Yes	
Spray.Seed®	Yes	Yes
Stomp®	Yes	
Stomp® Xtra	Yes	
Terbyne® Xtreme	Yes	Yes
Triflur® X	Yes	Yes
UAN		Yes
Uptake® Oil	Yes	
Weedmaster® Duo	Yes	

RAINFAST

Valor and Valor EZE are rainfast after one hour but when using for enhanced knockdown follow the recommendations of the partner herbicide.

AERIAL APPLICATION

Do not apply by air.

VALOR EZE 480 SC HERBICIDE

VALOR 500 WG HERBICIDE

Rules of thumb when applying Valor and Valor EZE

Knockdown spike

1. Apply in 100 L water per ha.
2. Always use Hasten spray oil.
3. Use flat fan nozzles.
   - Air induction nozzles can give poor coverage when oil is used.
4. Target appropriate sized weeds.
   - Targeting young/small weeds gives best results.
   - Avoid older established plants (check roots).
5. Use correct rate of mixing partner.

Residual application

1. Valor and Valor EZE need 15 mm of rainfall in the 3 weeks following sowing to incorporate and activate.
2. Avoid excessively cloddy soil or high trash cover.
3. Remove emerged weeds prior with a non-selective herbicide if coverage is greater than 20%.
4. Use a minimum of 80 L per ha of water. Use more when heavy trash or stubble cover is present.
5. Prolonged wet weather following application and sowing can heighten the chance of negative crop effects.

VALOR® 500 WG HERBICIDE

VALOR® 480 SC HERBICIDE EZE

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Scan here to see more information

Valor WG ***Valor EZE***

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