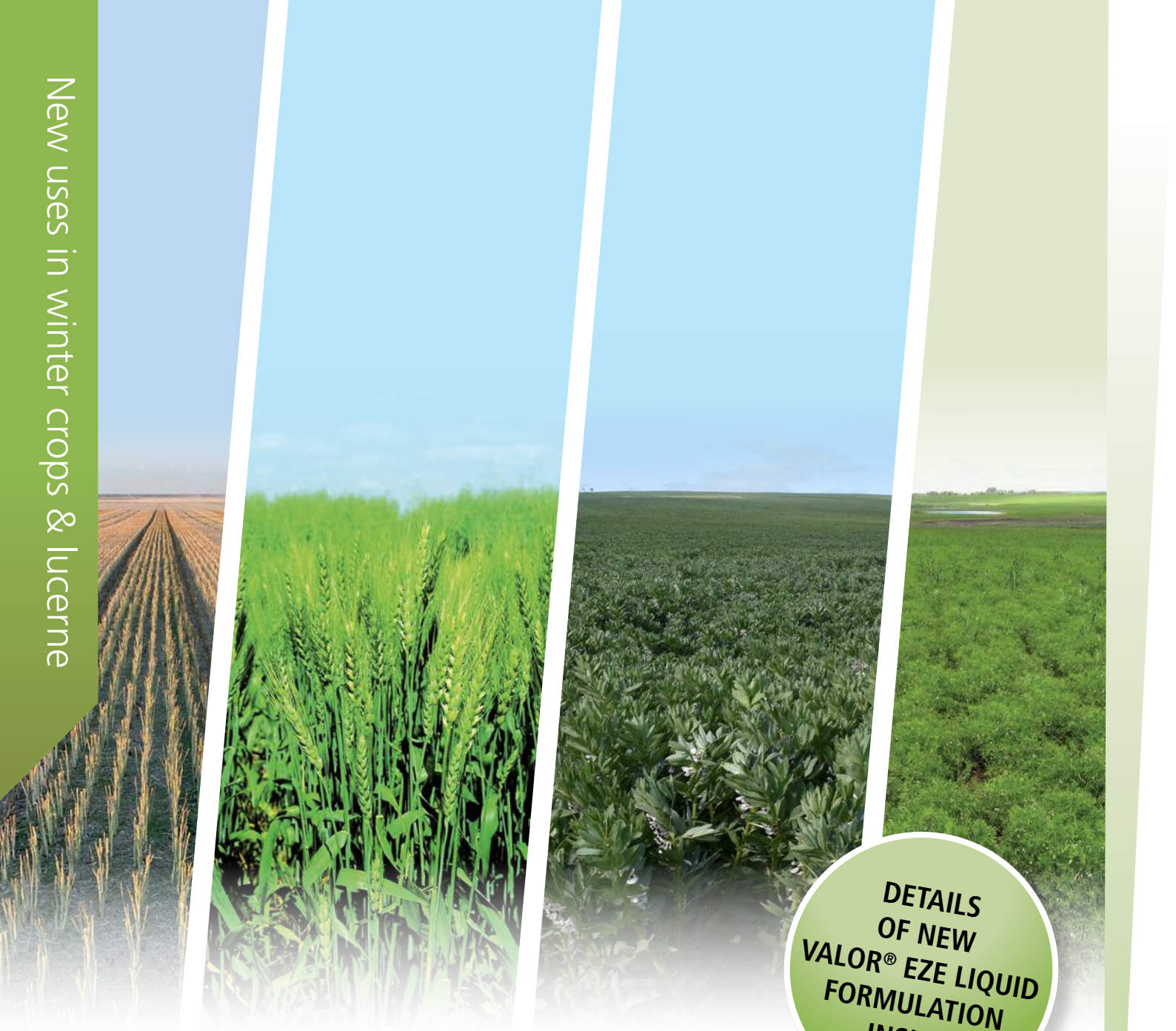


New uses in winter crops & lucerne



DETAILS
OF NEW
VALOR® EZE LIQUID
FORMULATION
INSIDE



SOUTHERN CROPPING SYSTEMS
TECHNICAL GUIDE

RESIDUAL WEED CONTROL WITH FLEXIBILITY

Overview

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

- Valor contains 500 g/kg of flumioxazin as a wettable granule (WG).
- Valor EZE contains 480 g/L of flumioxazin as a 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 EZE is available in 10 L drums with large Easy Pour openings.

MODE OF ACTION AND CHEMICAL PROPERTIES

Parameter	Flumioxazin
Concentration	500 g/kg Valor 500WG, 480 g/L Valor EZE
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 does Valor and Valor EZE work?

FOLIAR UPTAKE

Valor and Valor EZE have excellent burndown ability on emerged weeds. Weeds exposed to the herbicide are controlled 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.

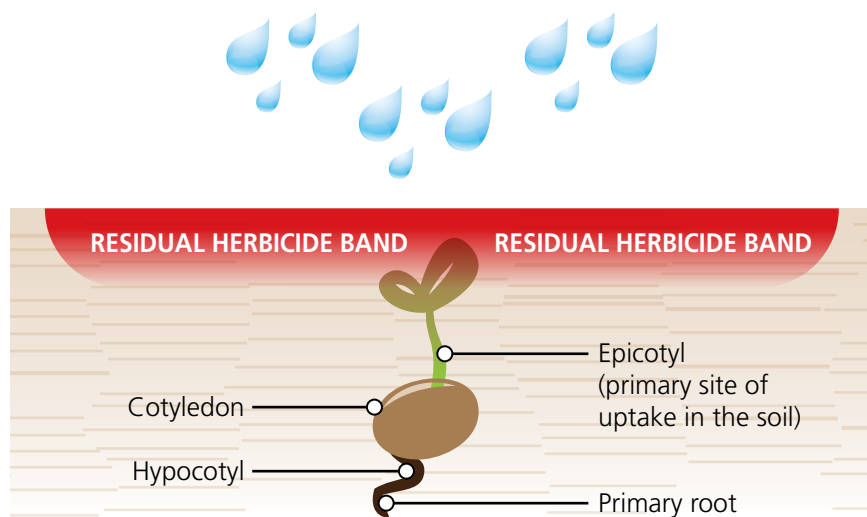
Affected leaves turn yellow soon after application, followed by desiccation, necrosis and browning. Sunlight is vital to initiate symptoms and instrumental to herbicidal efficacy because of its role in the formation of the chemical agent responsible for the cell wall disruption. At spike rates, the efficacy will generally be enhanced by increases in light intensity.



*Glyphosate 450 at 1 L/ha on Marshmallow 15 DAA (left).
Valor 30 g/ha + Glyphosate 450 at 1 L/ha + Hasten 0.5% 15 DAA (right).
Photos show that more comprehensive burndown is achieved with Valor after 15 days, especially on Marshmallow.*

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, 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.



Valor and Valor EZE Uses in Southern 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.
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.	Sowing (IBS) should occur within 7 days of application.
Faba beans, Chickpeas and Field peas		180 g	190 mL	Residual suppression of a range of weeds. See weeds table or label.	Residual control may be reduced unless 25mm of rain occurs within 3 weeks following sowing.
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

Residual Weed Control

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

- Short plant-back interval restrictions 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.
- The option of use more than once in a season if minimum plant-back intervals and rainfall requirements are observed.
- An outstanding resistance management tool for winter cropping systems where resistance is present to other herbicide groups. No known resistance has been identified to Valor in Australia.
- New options for fallow commencement post harvest with long lasting residual weed control.



Valor and Valor EZE have a high level of crop safety in Faba beans and provide excellent residual weed control when applied and incorporated at sowing.

RULES OF THUMB FOR RESIDUAL APPLICATION

1. Do not apply to excessively cloddy ground to avoid shadowing.
2. Control may be reduced unless 25 mm rainfall occurs in the 3 weeks following sowing.
3. Do not apply if weed cover is in excess of 20%. Remove weeds prior with a non-selective herbicide if necessary.
4. Use a minimum of 80 L per ha of water when spraying. Use more water when heavy trash or stubble cover is present.
5. Prolonged wet weather following application and sowing can heighten the chance of negative crop effects.

INCORPORATION BY SOWING (IBS)

1. Whilst Valor and Valor EZE have very high safety margins with crops like faba beans, others like wheat, and lentils have a lower tolerance and can show side effects from the herbicide if adequate separation does not occur. The best way to ensure suitable separation between the emerging crop and Valor is to utilise the Incorporation By Sowing (IBS) method.
2. Use only with knife/blade points and press wheels. Sow at speeds slow enough to ensure treated soil is not thrown into adjacent furrows excessively.
3. Use high seed sowing rates and good fertiliser levels to encourage vigorous crops and thereby assist with weed control.
4. Sow seed below the treated soil band; in wheat crops 3 cm below.
5. Dry weather following application may reduce effectiveness.
6. Avoid sowing and treating if heavy rain is forecast, crop damage can occur when heavy rainfall occurs soon after application.
7. DO NOT use on lighter soil types (sand) as shorter periods of residual control and unacceptable risks to crop safety may occur.
8. Avoid soils which are non-wetting or are likely to become clumpy or cloddy during sowing as they will reduce herbicide activity.
9. Heavy stubble coverage can limit contact of the herbicide with the soil and/or weeds and reduce the level of weed control.



Photo: Typical knife point and press wheel setup that is ideal for incorporating Valor and Valor EZE when sowing winter crops.

VALOR
500 WG HERBICIDE

VALOR **EZE**
480 SC HERBICIDE

Pre-Plant Knockdown Spike

One of the strengths of the Valor products is as a mixing partner for glyphosate and paraquat-based herbicides – for the improved control or burndown of unwanted weeds before planting a range of winter broadacre and summer row crops. It can be used immediately prior to sowing wheat, oats and barley, chickpeas, faba beans, field peas, lentils and lupins. Valor and Valor EZE offer:

- Consistent control of a wide variety of broadleaf weeds, as well as certain grasses.
- Good burndown activity against a number of problem weeds including Wild radish (*Raphanus raphanistrum*), Marshmallow (*Malva parviflora*) and Wireweed (*Polygonum aviculare*).
- Improved seed bed preparation through rapid removal of existing weeds when mixed with a non-selective herbicide prior to sowing.

SUMMARY OF PRE-PLANT SPIKE USES

Rate	Use-timing	Crops		Weeds
Valor 30 g/ha or Valor EZE 30 mL/ha Plus glyphosate or paraquat or paraquat/diquat mixture Plus Hasten* spray oil	Pre-plant burndown "spike"	<u>Winter</u> Wheat Barley Oats Chickpeas Faba beans Field peas Lentils Lupins	<u>Summer</u> Cotton Sorghum Maize Soybeans Peanuts Mungbeans Navy beans Pigeon pea Sunflower	2 – 6 leaf weeds Refer to weeds-controlled table in this guide or product label.

*Registered Trademark

PLANT-BACK RESTRICTIONS FROM SPIKE RATE APPLICATION

At the 30 g/ha or 30 mL/ha burndown rate, Valor and Valor EZE have limited soil residual activity and, with the exception of canola, there are no plant-back limitations for most rotation crops in Southern cropping regions. Refer to table of minimum recropping intervals in this guide.

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 appropriately sized weeds.
 - Targeting young/small weeds gives best results.
 - Check roots (avoid older established plants).
5. Use correct rate of mixing partner.

Fallow commencement

An ideal time to apply Valor or Valor EZE 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 including wheat, barley, triticale, oats, faba beans, field peas, chickpeas, lupins and lentils the following autumn.

Note: Canola is one of the only exceptions to Valor and Valor EZE's short plant-back periods, requiring a 9 month re-cropping interval when used at residual rates. This means applying Valor 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 and Valor EZE can also be used with confidence following other winter crops where canola is not planned to be grown the following season.

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 weed seed contamination hence practicing good hygiene by using Valor for long term weed control makes excellent sense. With a Group 14 PPO mode of action Valor and Valor EZE are 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 used at 700 g/ha or Valor EZE at 730 mL/ha along fence lines and non-crop boundary areas can provide extended weed control for up to 12 months.

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

Even one application of glyphosate alone costs approximately \$25-30/ha 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 total well over \$40/ha.

Whilst a residual rate of Valor or Valor EZE plus glyphosate or paraquat can cost up to \$50/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 is 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.

VALOR
500 WG HERBICIDE

VALOR **EZE**
480 SC HERBICIDE

Lucerne

When used at 280 g/ha or 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 Valor will provide weed control for up to 16 weeks, improving dry matter production and feed quality. A short 4-week WHP on grazing lucerne needs to be observed, however.

For best results when applying Valor to established lucerne,

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

Channel Banks & Drainage Ditches

Valor and Valor EZE are safe and highly effective tools for residual weed control and enhanced knockdown in irrigation channel banks and drainage ditches when used at between 560 g/ha and 700 g/ha for Valor and 580 mL/ha to 730 mL/ha for Valor EZE.

For best results:

- Channels should be empty at time of application
- 15 mm of rain required to fall within 3 weeks after application to incorporate (once this occurs – its ok to fill channel and irrigate).
- If the required 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 application if weed coverage is greater than 20%.

Note: The active ingredient in Valor and Valor EZE has minimal uptake via plant roots, therefore there is minimal risk of injury to emerged crops through treated soil from the channel inadvertently moving into the field.



Photos: 155 days after treatment.

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 - 25 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 an ideal choice to manage weeds with known resistance to other modes of action.

Canola's high sensitivity to Valor and Valor EZE combined with a Group 14 mode of action also makes them the perfect choice for control of conventional, IT, TT and glyphosate tolerant canola volunteers.



Valor and Valor EZE are an excellent choice for helping control Roundup* Ready canola volunteers

*Registered Trademark

Short withholding period and flexible grazing options

KNOCKDOWN SPIKE RATES

Valor and Valor EZE treated cereal, pulse crop and canola stubble can be safely grazed by stock 2 weeks after application when spike rates are used (30 g or 30 mL per ha).

RESIDUAL RATES

When residual rates are used (120 - 280 g/ha or 125 - 290 mL/ha) the following withholding periods should be observed,

Wheat – Harvest withholding not required and 6 weeks grazing withholding.

Lucerne – Harvest withholding not required and 4 weeks for cutting or grazing withholding.

Lentils, Chickpeas, Faba beans, and Field peas – Harvest withholding not required and 12 weeks grazing withholding.

NOTE: To maximise residual weed control, Sumitomo recommend avoiding grazing treated fields as excessive stock traffic can disrupt the herbicide layer on the soil surface allowing weeds to escape.



Weeds controlled

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

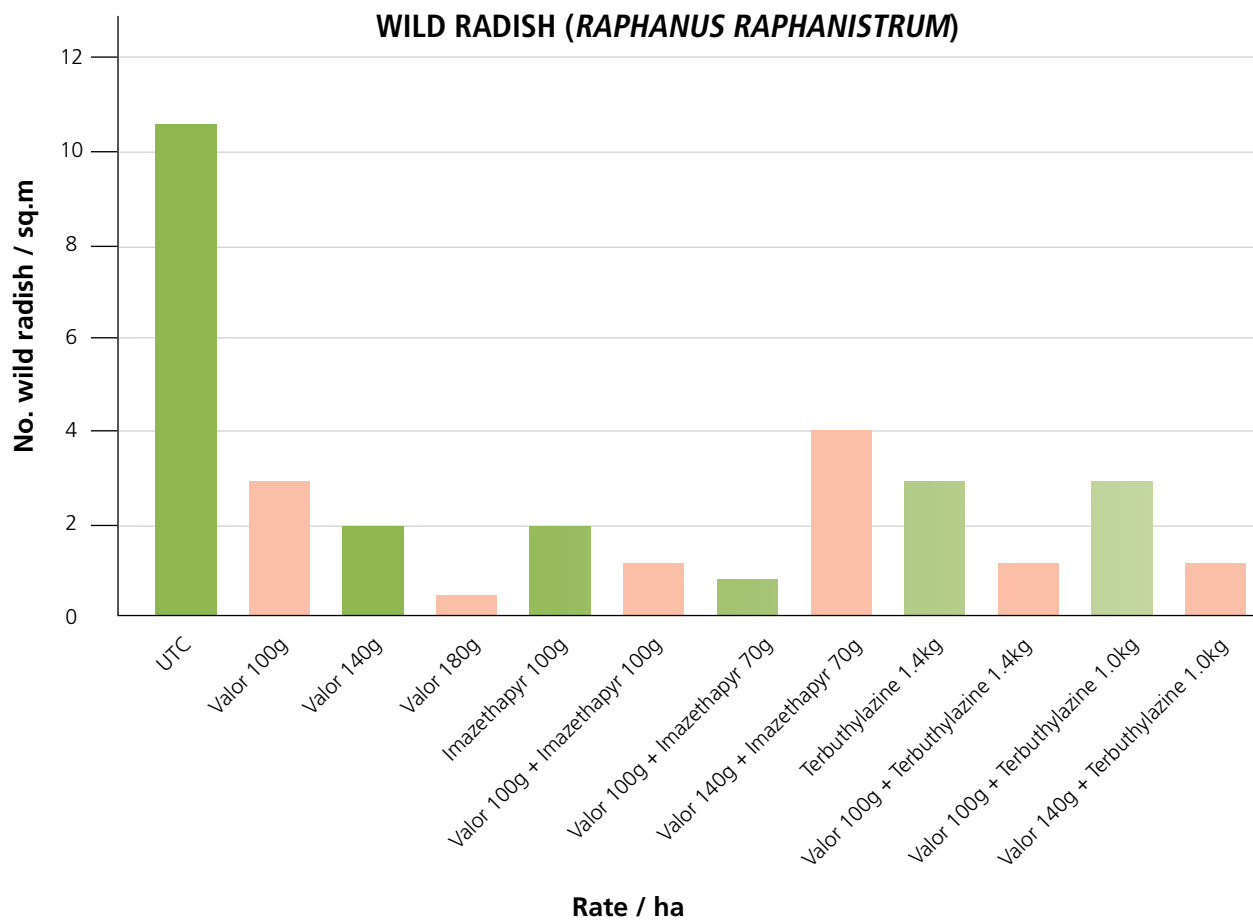
Weed species	Valor WG g/ha	30	120	120	180	210 - 280	280	560 - 700	700
	Valor EZE mL/ha	30	125	125	190	220 - 290	290	580 - 730	730
Use situation	Spike	Wheat and Lentils#	+ 2 L/ha Triflur® X + 3.2 L/ha Avadex® Xtra (Wheat)#	Faba beans, Chickpeas and Field peas	Fallow commencement	Lucerne	Channel Banks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

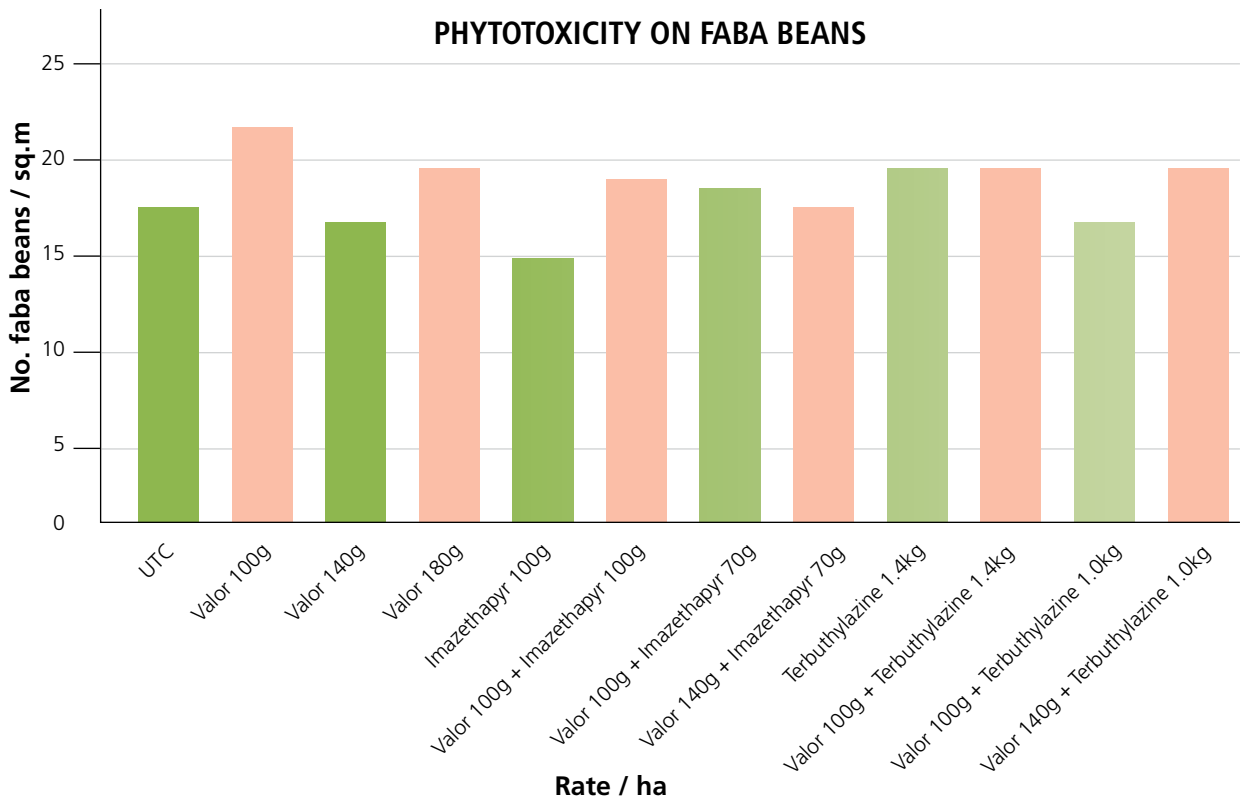
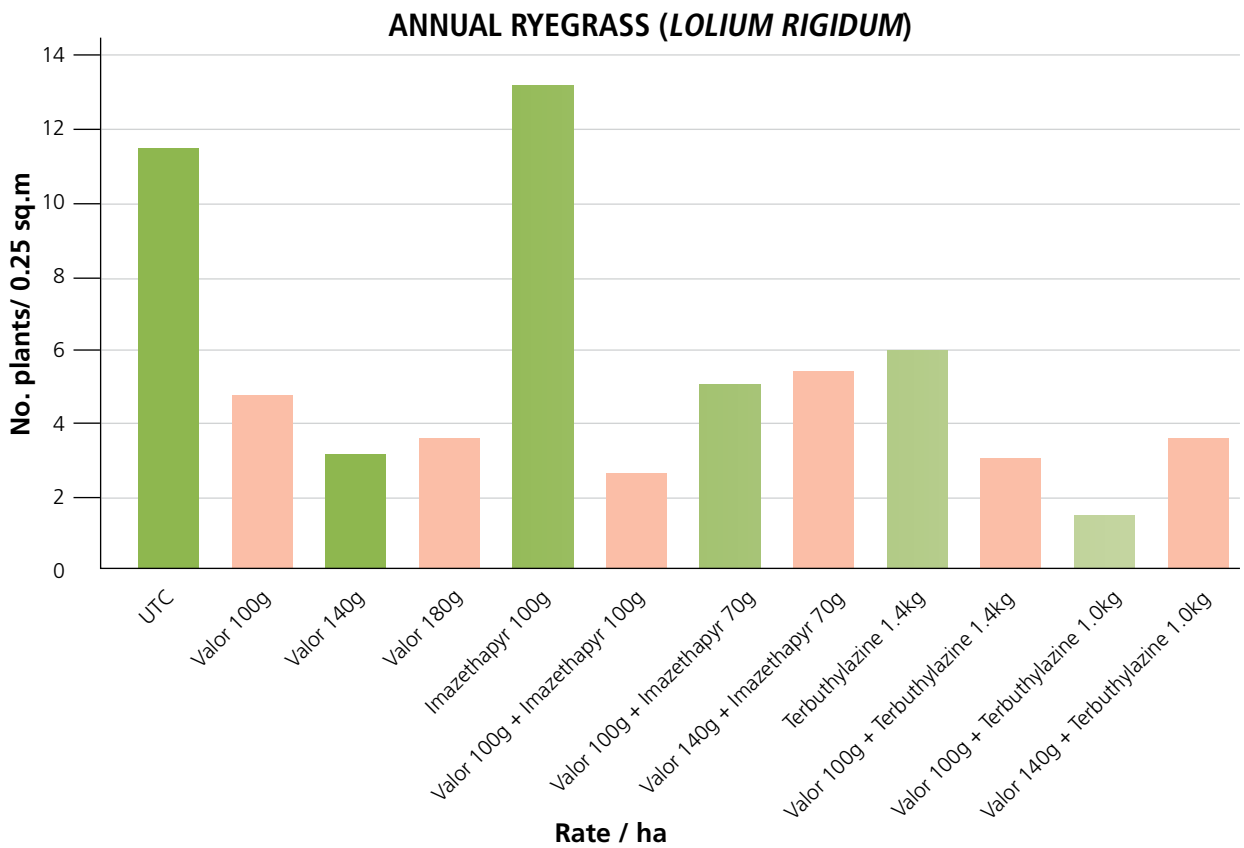
✓▲ = Suppression only ✓ = Control # Not durum varieties

Trial Data

VALOR ON FABA BEANS: HORSHAM, VIC. H13-017

- Standing barley stubble
- Grey sandy loam
- Applied May 2nd
- Germinated 14th May
- Rainfall 14mm Apr, 40mm May, 89mm Jun
- Control of Wild Radish 44DAGerm (27 Jun)

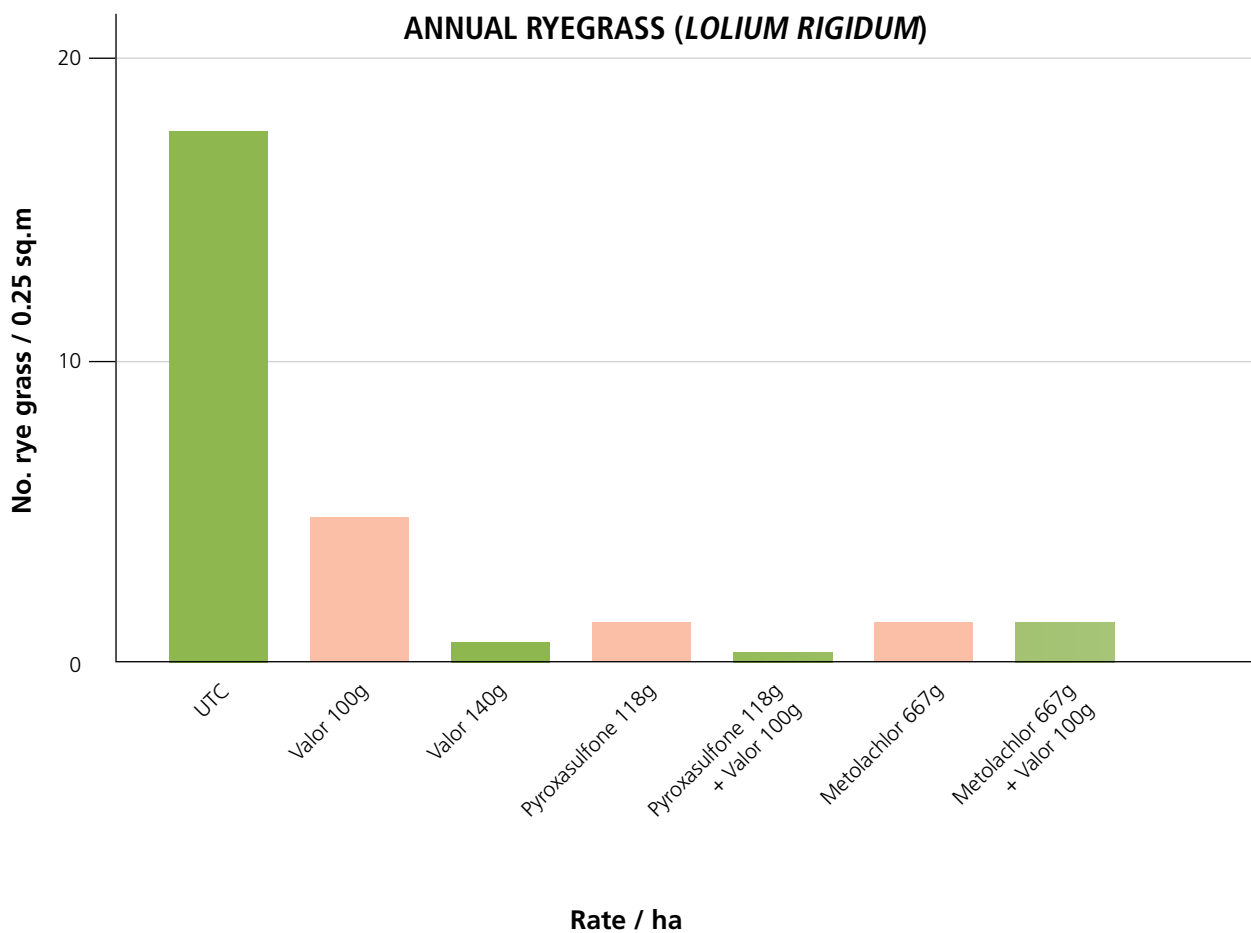




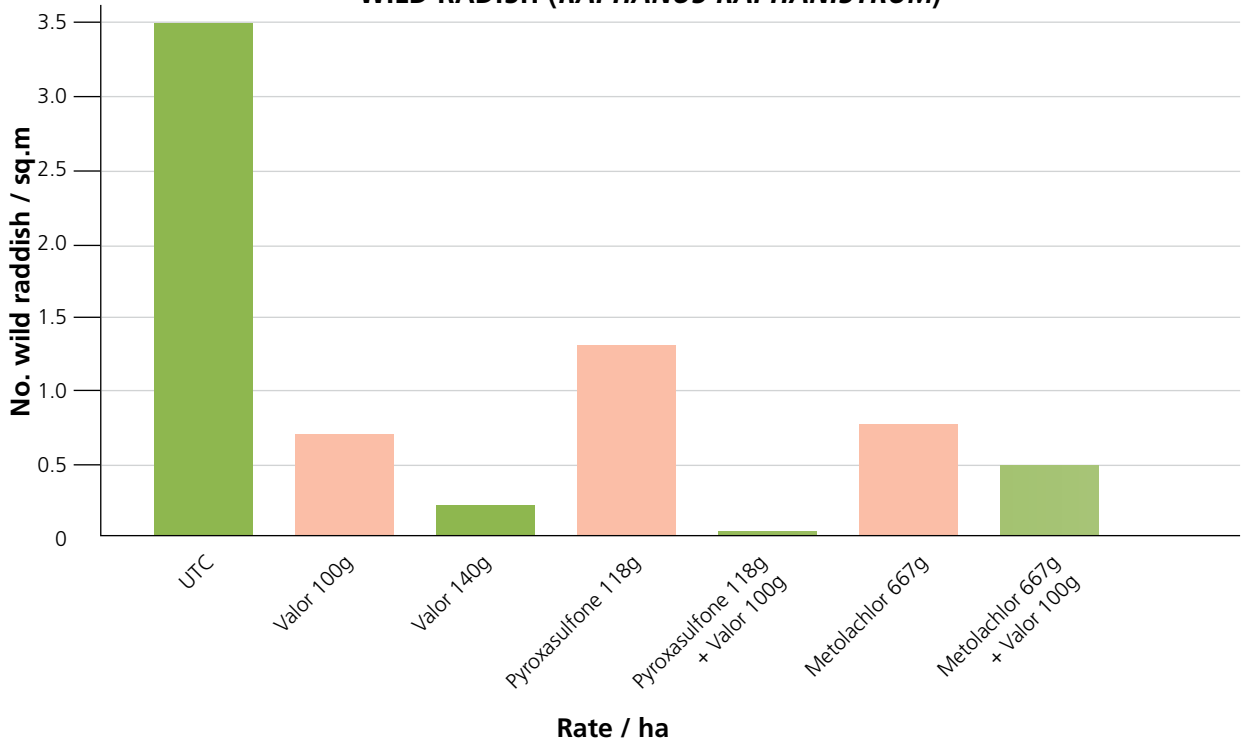
This trial shows Valor at the registered rate of 180 g/ha in Faba beans offers robust suppression of Wild radish and significantly reduced numbers of Annual ryegrass. Note rates of Valor in the trial below 180g/ha are unregistered rates in Faba beans and were for research purposes only. The trial results also show that Valor has an excellent crop safety profile on Faba beans.

VALOR ON WHEAT: GEELONG, VIC. H13-020B

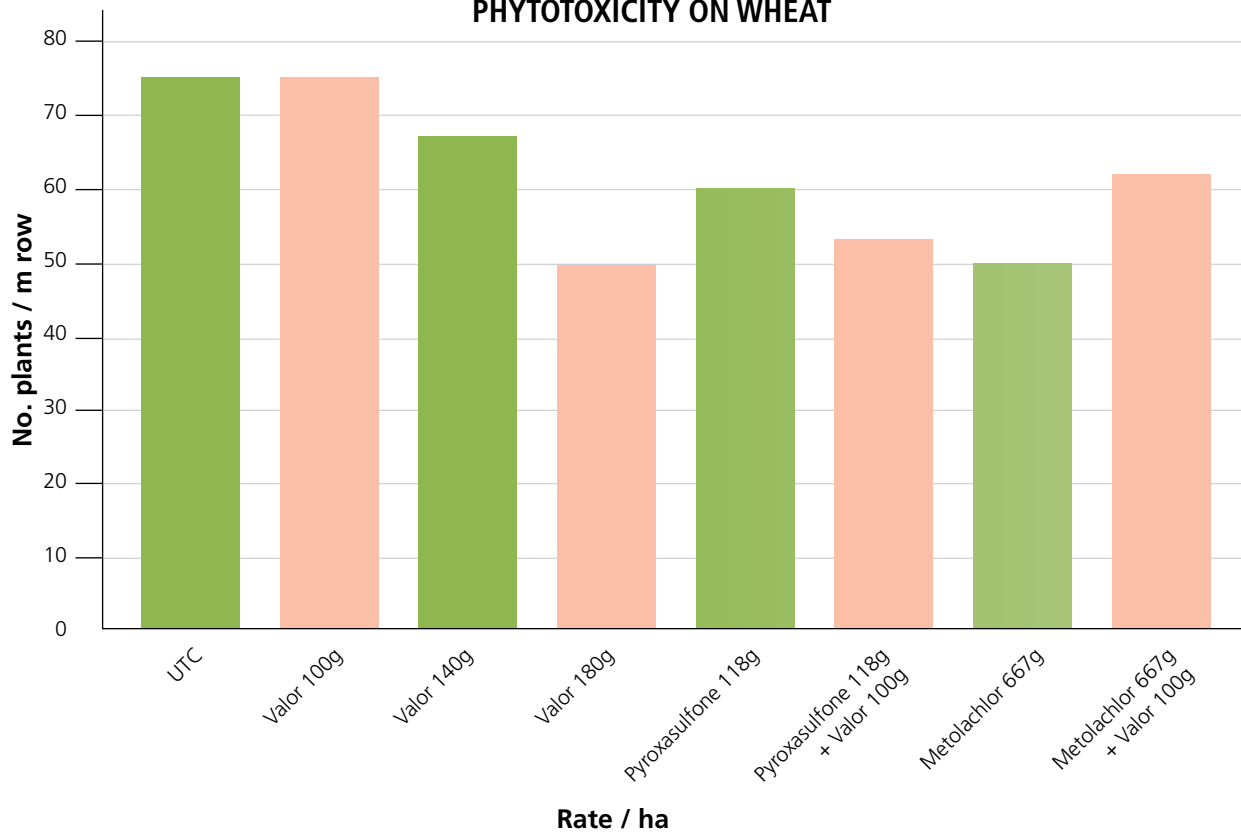
- Standing canola stubble
- Grey sandy loam
- IBS Application 31 May
- Germination 4th Jun
- Rainfall 10 mm Apr, 44 mm May, 84 mm Jun
- Control of better use ryegrass or Annual ryegrass
36 DA Germination (10th Jul)



WILD RADISH (*RAPHANUS RAPHANISTRUM*)



PHYTOTOXICITY ON WHEAT



This wheat trial shows Valor can significantly reduce the numbers of Annual ryegrass and Wild radish in wheat and that rates below 140 g/ha show only minimal crop phytotoxicity. Valor is registered in wheat at a maximum rate of 120 g/ha and other rates shown in these trial results were for research purposes only.

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.

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 removal of Valor or Valor EZE from the spray system, add a tank cleaner such as All Clear™ DS or Kleenup™ Granular in place of 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.

	Compatability 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®	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.



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.
 - Check roots (avoid older established plants).
5. Use correct rate of mixing partner.

Residual application

1. Valor and Valor EZE need 25 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.



For further information on Sumitomo **Valor and Valor EZE herbicides**, please contact:

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Scan here to see more information



Valor WG



Valor EZE



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