

# Smart Pass 450

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

PEEL  
HERE

## HERBICIDE

ACTIVE CONSTITUENT: 450 g/L 2,4-D  
present as the ISOPROPYLAMINE SALT

Group **I** Herbicide

For the control of emerged broadleaf weeds prior to sowing crops and pastures in conservation tillage situations and for selective weed control in crops and situations detailed in the Directions for Use.

This is a PHENOXY HERBICIDE that can cause severe damage to susceptible crops such as cotton, grapes, tomatoes, oilseed crops and ornamentals.



**IMPORTANT:**  
READ THIS LEAFLET BEFORE USE

**Crop Smart**  
better crop protection

APVMA APPROVAL NO: 66069/52631

Contents: 20, 110 & 1000L

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## DIRECTIONS FOR USE:

RESTRAINTS: DO NOT spray if rain seems likely within 6 hours or if strong winds prevail.

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

## 1. CONSERVATION TILLAGE

Situation & Crop	Weeds	State	Rate	Critical Comments
Preparatory spray for Fallows and Seedbeds prior to sowing the following Crops: Balansa Clover, Barley, Chickpeas Cotton, Faba Beans, Field Peas, Lentils, Linseed, Lucerne, Lupins, Narbon Beans, Navybeans, Oats, Perennial Ryegrass, Persian Clover, Phalaris, Rapeseed, Rice, Safflower, Sorghum, Soybean, Subterranean Clover, Sunflower, Triticale, Vetch, Wheat, White Clover	Fumitory (white), Ball Mustard, Indian Hedge Mustard, Common Sowthistle, Turnip Weed, Wild Turnip, Wild Radish.	All States	440mL/ha - 800L/ha + 450g/L Glyphosate and Surfactant at recommended label rates	<b>RATE SELECTION: Use the lower rate for seedling broadleaf weeds and increase to this higher rate for broadleaf weeds more than 10cm diameter/high. Always add Glyphosate 450g/L at recommended label rates.</b> <b>At the time of application, all weeds must be actively growing and not under stress from low moisture, frost, cold, disease or waterlogging. If grazing has occurred allow regrowth to 6-8cm before spraying and use higher rate. Always add either a non-ionic surfactant (eg. 900g/L non-ionic surfactant) or the acidifying surfactant LI- 700 or Bonus in accordance with label directions on the Glyphosate 450g/L product.</b> <b>Use LI-700 with Glyphosate 450g/L if insecticides will be included in the tank mixture or if faster brownout of weeds is required.</b>
	Seedlings of: Australian Bindweed, Bellvine, Caltrop, New Zealand Spinach, Raspweed	NSW, Qld only		
	Ageratum (Blue Top), Dock, Volunteer Lupins, Volunteer Peas, Volunteer Sunflowers, Charlock, Fumitory (Red), Medic, Paterson's Curse, Prickly Lettuce (Wild Lettuce), Saffron Thistle, Spear Thistle, Variegated Thistle	All states	600mL/ha – 800 mL/ha + Glyphosate 450g/L and Surfactant at recommended label rates	
	Bathurst Burr, Blackberry Nightshade, Californian Burr, Horehound Seedlings, Lincoln Weed Seedlings, Marshmallow Seedlings, Sorrel Seedlings, Thornapple, Volunteer Vetch, Volunteer Safflower, Common Ice-Plant, Storksbill/Erodium Seedlings, Ivyleaf, Speedwell, Melilotus, Shepherd's Purse, Skeleton Weed (Suppression only), Ward's Weed, Wireweed Seedlings (Hogweed), White Clover, Sub-Clover		800mL/ha - 1.2L/ha + Glyphosate 450g/L and Surfactant at Recommended label rates	
	Amaranth, Apple of Peru, Mexican Poppy, Annual Ground Cherry, Bladder Ketmia, Fat Hen, Melons, Native Rosella, Noogoora Burr, Potato Weed, Cow Vine, Yellow Vine, Rapeseed.	NSW, Qld only	1.2L/ha – 1.8L/ha + Glyphosate 450g/L and Surfactant at recommended label rates	
<b>PASTURES: Conservation Tillage - Direct Drilling, Surface Sowing or Fallow Maintenance</b>	Charlock, Mustards, Shepherd's Purse, Saffron, Slender & Variegated Thistles, Turnip Weed, Wild Radish, Wild Turnip	All States	730mL - 2.2L/ha	Apply to actively growing young weeds before sowing. Observe plant back periods given in the table on this leaflet.
	Clover Sorrel		1.5 L/ha plus 280mL- 400mL/ha Dicamba 500g/L	Apply to actively growing plants in autumn. Do not sow pasture seed for at least 30 days after application.

## DIRECTIONS FOR USE (Cont)

### 2. FIELD CROPS

Situation & Crop	Weeds	State	Rate	Critical Comments
Wheat	Refer Weed Table	NSW, SA, Vic, Qld, Tas only	450mL - 1.9L/ha Refer to weed table for specific rates in each state	Apply after the first node can be felt at the base of a tiller and before swelling of the head can be felt in a tiller (NSW, SA only). Apply from tillering to boot stage (Vic only). Apply from mid-tillering to before boot stage (Qld only). Apply at 5 leaf to fully tillered (Tas only).
Barley				
Cereal Rye, Triticale				
Oats				
Cereals: Wheat, Oats, Barley	Cape Tulip	WA only	930mL – 1.7L/ha	Apply from the 5 leaf stage up to jointing stage (Zadoks 15-33). Apply after the 6 leaf stage (Z 16) for cranbrook, jacup, aroona and spear wheat and mortlock oats to avoid possible damage. DO NOT spray if lucerne is present. WEED STAGE: 10-15cm. Docks should be sprayed before 5-leaf stage. Cape tulip - low rate for cormils only.
	Dock, Saffron Thistle		1.5L/ha	
	Indian Hedge Mustard, London Rocket, Lupin, Rapistrum, Wild Radish		1.1L/ha	
	Wild Turnip		930 mL/ha	
	Capeweed, Doublegee, Erodium, London Rocket, Lupin, Mustard, Rapistrum, Wild Radish, Wild Turnip		250 mL/ha plus 500mL/ha Flowable Diuron 500g/L	Apply when crop has 4-5 leaves and most weeds have germinated and are in 2-5 leaf stage. Crop and weeds should be dry at time of application. Some temporary yellowing of crop may occur after application. Undersown sub- clovers may be slightly retarded. DO NOT apply to undersown medics.
Wheat, Barley	Wild Radish	NSW, SA, Vic only	110mL/ha plus 850g/ha Bayer Tribunil herbicide	Spray 2-6 weeks after sowing and not later. DO NOT use on crops undersown with lucerne.
<b>Fallow, Stubble Spray prior to Direct Drilling or Sowing</b> a) Winter Cereals ----- b) Winter Cereals and Maize, <b>Sweetcorn, Peanuts</b>	Refer Weed Table	Vic only	310mL - 1.9L/ha	Observe plant back periods given in the table on this booklet. Can be mixed with Siege, Chlorsulfuron 750, Gramoxone or Spray Seed where grasses are present. For skeleton weed spraying should only be done 6-8 weeks before anticipated sowing date and subsequent cultivation limited to a minimum.
		NSW only	800mL – 2.3L/ha	
		Qld only		
Maize, <b>Sweetcorn</b>		NSW, SA only	800mL – 1.5L/ha	Apply when crop is 10-20cm high and secondary roots are developing for an over the top spray. When crop is between 20cm high and just before tasselling, spray with dropped nozzles to avoid chemical being sprayed into the whorl and on upper leaves.
		Qld only		Apply when crop is 10-30cm high and secondary roots have developed. Use drop nozzles and direct spray when crop exceeds 30cm in height and before tasselling.
		Tas only		Apply when the crop is 15-30cm high. Do not spray if the crop is showing signs of stress. Some leaf twisting may occur following application - crop recovers quickly.
<b>Sorghum</b>		NSW, SA, Vic only		Apply preferably when crop is at 3-6 fully expanded leaf stage but can be sprayed from 2-8 leaf stage. From 6 leaf stage onwards to within 2 weeks of flowering, crop can be sprayed with dropped nozzles to avoid chemical being sprayed into the whorl and on upper leaves.
		Qld only (except central Qld)		Apply when crop has 4 to 8 fully expanded leaves and secondary roots have developed.

## DIRECTIONS FOR USE (cont.)

### 2. FIELD CROPS

Situation & Crop	Weeds	State	Rate	Critical Comments
Millet	Refer Weed Table	NSW, SA, Vic only	800mL – 1.5L/ha	Spray when secondary roots have developed, when fully tillered and before heads start to form at the base of the tillers. Do not use on panarama or panicum.
		Qld only	800mL - 1.2L/ha	
<b>Maize, Sweetcorn, Saccaline, Broom Millet, Millet</b>	Cape Tulip, Dock, Saffron Thistle, Indian Hedge Mustard, London Rocket, Lupin, Rapistrum, Radish, Wild Turnip	WA only	1.5L/ha	Spray when crop is 10-30cm high and secondary roots have developed and before tasselling. Apply as direct spray to weeds.
<b>Grain Sorghum</b>				Apply when crop is 12cm high. DO NOT apply between tassel and dough stage. Avoid spraying when in flower.
<b>Sugar Cane</b>	Bindy Eye (Star Burr), Blue Top, Cobblers Pegs, Fleabanes, Jute, Leucas, Needle Burr, Spear Thistle Water Primrose, Ipomea Vines, Convolvulus Vines	Qld only	2.4 L- 4.9L/ha	Add 170mL of Surfactant 600g/L to 100L of spray mixture. Agitate well. DO NOT use on Q63, Q67, Q80 or Q96 varieties.
	Chinese Mint, Blue Snakeweed		4.9L/ha	
<b>Peanuts</b>	Broadleaf Weeds except Noogoora Burr, Grasses except Mossman Burr	Qld only	2.4L or 5L/ha	LOWER RATE: Apply as BAND SPRAY as soon as possible after planting in a 55cm band. HIGHER RATE: Apply as OVERALL SPRAY after planting and before crop emergence. Some crop damage may occur if heavy rain falls between application and crop emergence.
<b>Harvest Aid or Salvage Spray - Winter Cereals - Maize &amp; Sorghum</b>	Dessicate Broadleaf Weeds Refer Weed Table	Qld & NSW only	1.7 – 2.3L/ha	Apply after dough stage.

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

Situation & Crop	Weeds	State	Rate	Critical Comments
<b>Pastures &amp; non agricultural</b>	Refer Weed Table	NSW, Qld, SA, Tas only	730 – 2.3L/ha	Pasture legumes including lucerne, clovers, and medics may be damaged unless well protected by grasses. Spot spraying is preferred.
	Amsinckia, Docks, Bindweed, Caltrop, Flatweed, Spear Thistle, Capeweed, Doublegee, Saffron Thistle, Mustard, Wild Radish, Wild Turnip, Annual Thistles, Paterson's Curse	WA only	1.5L/ha	For pastures not containing legumes. Only seedling docks, spear thistles and saffron thistle will be controlled.
	Afghan Melons		2.2L/ha plus 1% crop oil	Spray when plants are actively growing preferably before flowering or vining.
	Paddy Melons		1.1 – 1.5L/ha	
	Prickly Saltwort (Roly Poly)		2.2L/ha	Spray when plants are small.
	Stinkwort		2.2L – 4.4L/ha. plus surfactant	Best results are obtained when plants are small Use high rate on larger plants.
	Dove Weed		4.4L/ha	Spray after good emergence of seedlings.
<b>Pastures, Rights of Way &amp; Industrial</b>	Boxthorn, Boneseed, Hawthorn	Vic, SA only	110mL/10L water	Spot spraying. For boneseed only, thoroughly wet plants or seedlings

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

Situation & Crop	Weeds	State	Rate	Critical Comments
Pastures, Rights of Way & Industrial (cont.)	Groundsel	NSW, Qld, SA only	1.3L/15L water	MISTING Lightly wet plants.
			400mL/100L water	HIGH VOLUME: Thoroughly wet plants.
			330mL/15L water	CUT STUMP: Swab the cut stump within one hour of cutting. Apply by a pouring can or knapsack spray.
			4 – 6.1 L/ha	AERIAL APPLICATION: Spray when groundsel is actively growing.
	Lantana		400mL/100L water	Use a coarse spray with sufficient pressure to penetrate canopy and wet stems as well as foliage. Spray at the end of a wet summer (March to May). Defoliation should occur but respraying of new growth will be necessary in the following Autumn. Broadcast grass seed and keep stock off following Summer to allow the pasture to establish. Damage may result to pasture legumes.
	Mother of Millions	NSW only	550mL/100L water	Hand gun and Knapsack only: a thorough coverage of leaves and plantlets is necessary. Use Spraymate Chemwet 1000 at the rate of 1.0mL of surfactant per 1L of mixture.
	Noogoora Burr, Weir Vine (Ipomea)	Qld only	220mL/100L water	In all cases apply to young, actively growing weeds, ensuring thorough coverage.  * Sprayrosettestage # Repeat spraying if necessary
Annual & Perennial Pigweed, Artichoke Thistle, Bathurst Burr, Billygoat Weed, Blue Snake Weed, Burr Medic, Clockweed*, Fleabanes, Galvanised Burr, Hemlock, Hoary Cress, #Kyalinga Weed (Whisker Grass), Knobweed, Milky Cotton Bushes, Weed, Paterson's Curse, Saffron Thistle, Star Burr, Thornapple, Variegated Thistle*	400mL/100L water			
Rubber Vine	220mL/100L water		Apply to freshly cut stump.	
Pastures - Spray/Graze Techniques				Precaution: An increased quantity of poisonous plants may be eaten by stock using spray-graze eg. caltrop, capeweed, paterson's curse and variegated thistle and deaths could result from causes such as nitrate poisoning. With paterson's curse, preferably graze stock soon destined for slaughter and avoid extended period of grazing. Avoid grazing with young or breeding stock. Do not graze horses or pigs on paterson's curse.
	Amsinckia, Thistles, Capeweed, Doublegee, Mustard, Paterson's Curse, Wild Turnip, Wild Radish, Docks, Geranium, Erodium	SA only	730mL/ha	Apply from 6 weeks after opening rains in autumn until the end of August. Seven days after spraying stock paddock at 4-5 times normal rate, preferably with sheep. Maintain this level of grazing for 6 weeks or until pasture shows signs of over grazing. Then return to normal stocking levels. Use high stocking rates in following spring to prevent weeds from flowering. Repeat treatments may be required for 2-3 years for complete control.
	Annual Thistles, Capeweed, Doublegee, Mustards, Paterson's Curse, Turnip, Saffron Thistle, Spear Thistle	Tas, Vic only		

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

Situation & Crop	Weeds	State	Rate	Critical Comments
<b>Pastures - Spray/Graze Techniques</b> (cont)	Amsinckia, Docks (seedling only), Capeweed, Doublegee, Mustard, Wild Radish, Wild Turnip, Paterson's Curse, Annual Thistles	WA only	870mL/ha	Apply from 6 weeks after opening rains in autumn until the end of August. Seven days after spraying stock paddock at 4-5 times normal rate, preferably with sheep. Maintain this level of grazing for 6 weeks or until pasture shows signs of over grazing. Then return to normal stocking levels. Use high stocking rates in following spring to prevent weeds from flowering. Repeat treatments may be required for 2-3 years for complete control.
	Spear Thistle, Saffron Thistle		1.7L/ha	Apply to saffron thistle at the end of September when plants are running up to flower. Sub- clovers may be damaged at this rate and use is not recommended for all medic pastures.
	Melons		2.2L/ha	Heavy stocking on young plants sprayed with 750mL/ha provides effective control.
	Docks	Vic only	1.5L/ha	Apply in September only and follow other recommendations above.
	Caltrop, Capeweed, Charlock, Mustards, Paterson's Curse, Shepherd's Purse, Saffron, Slender, Spear or Variegated Thistle, Turnip Weed, Wild Radish, Wild Turnip	NSW only	400mL- 1.5L/ha	Spray actively growing 6-8 week Qld weeds. Introduce stock 7-10 days after spraying, preferably sheep (cattle are less effective). Stocking rate should be at least 5 times heavier than normal until weeds have been reduced, but before survival of desirable pasture species is threatened. Lucerne and medics may be damaged and should be grazed short before spraying. Other legumes may be affected.
<b>Lawns</b>	Refer Weed Table	WA & Qld only	2.3mL- 4.5mL/1L water	Wet foliage thoroughly.

### 4. SPOT SPRAYING

Situation & Crops	Weeds	State	Mixing Rate/Critical Comments
<b>High Volume Spraying</b>	Refer to weed table	All States	Add 1/10th of rate on weed table to 150 litres of water. Each 150 litres of mix will cover 1000m <sup>2</sup> (1/10th ha). eg. If rate in weed table is 1.5L use 150mL/150L water.
<b>Knapsack Application</b>			Add 1 /100th of rate on weed table to 10 litres of water. Each 10 litres of mix will cover 100m <sup>2</sup> (1 /100th ha). eg. If rate in weed table is 1.5L use 15mL/10L water.

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

**WITHHOLDING PERIOD: PASTURE, CEREAL CROPS - DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.**

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

**IN TASMANIA, THIS PRODUCT MAY ONLY BE USED FROM 15 APRIL TO 15 SEPTEMBER UNLESS OTHERWISE PERMITTED BY THE REGISTRAR OF PESTICIDES.**

**WEED TABLE:** The rates listed in the Weed Table below are spot spraying rates for use in crop or pasture, or for use where weeds only are present and no crop or pasture is involved. NOTE: Where weeds are to be sprayed in a CROP or PASTURE (other than spot spraying) use only the rates given for the particular crop or situation indicated under the Directions for Use.

**WEED TABLE:**

Weeds	Application Rate per Hectare							Critical Comments
	Crop						Pastures	
	Vic	NSW	SA	Qld	Tas	WA	NSW, SA, Qld, Tas only	
<b>Amaranthus spp.</b>		730mL- 1.5L		1.2L				Spray young plants.
<b>Apple of Peru</b>		730mL- 1.5L		1.2L				Spray young plants. Susceptible when young.
<b>Bathurst Burr</b>		1.1-1.5L		1.2L			1.1-1.5L NOT SA	Spray seedlings only.
<b>Blackberry Nightshade</b>		730mL- 1.5L		1.2L				
<b>California Burr</b>		1.1-1.5L		1.2L			1.1-1.5L NOT SA	Spray seedlings only.
<b>Cape Tulip</b>						930mL- 1.7L		Low rate for cormils only.*
<b>Capeweed</b>	1.9L		2.3L		1.9L		2.3-3.9L	Spray seedlings to rosette stage.
<b>Caltrop</b>		1.1-2.3L		1.2L				Moderately susceptible.
<b>Charlock</b>	730mL- 1.1L	730mL- 1.5L	730mL		1.9L		1.1-1.5L	Spray at rosette stage.
<b>Clover</b>		1.7L						
<b>Common Ice Plant</b>			1.5L					
<b>Docks</b>	1.9L		1.9L	1.9L	1.9L	1.5L	4.4L SA ONLY	Spray at multiple leaf stage. - effective only on seedlings.
<b>Fat Hen</b>		800mL- 2.3L		1.2L	1.9L			Spray pre-flowering.
<b>Fumitory - red</b>			2.3L					
<b>Fumitory - white</b>	1.1L	730mL						Spray at multiple leaf stage.
<b>Hexham Scent/ Melilotus</b>	1.9L		1.5L	1.9L			1.5-2.3L	Spray at multiple leaf stage, before seeding.
<b>Hoary Cress</b>	1.2-1.9L	1.5-2.3L	1.9L	1.9L			2-2.3L	Spray rosettes and pre-flowering.
<b>Hogweed / Wireweed</b>	1.9L			1.9L				Spray at multiple leaf stage (Vic) Spray at seedling and young plant stage (Qld).
<b>Horehound</b>			1.9L				3.1 – 4.4L SA ONLY	Spray seedlings.
<b>Khaki Weed</b>							1.5-3L NOT SA	Spray seedlings only.
<b>Lincoln Weed</b>			2.3L					
<b>London Rocket</b>						1.1L		Spray early rosettes.
<b>Lupins</b>		1.1-2.3L						
<b>Mexican Poppy</b>				1.9L				Spray seedlings - plants become more resistant with age.
<b>Mintweed</b>		1.5L		1.2L				Spray seedlings - resistant in later stages.
<b>Mustards</b>	310mL- 730mL	730mL- 1.5L	730mL- 1.9L	1.2L		1.1L	730mL -1.5L	Spray at 2-4 leaf up to rosette stage.



Weeds	Application Rate per Hectare						Critical Comments	
	Crop							Pasture
	Vic	NSW	SA	Qld	Tas	WA		NSW, SA, Qld, Tas only
New Zealand Spinach Noogoora Burr		1.5-2.3L 1.1-1.5L		1.2L			1.1-1.5L NOT SA	Spray seedlings only.
Paterson's Curse		1.5L-2.3L		1.9L		1.7L	2.3-3.1L	Spray rosettes or before plants have 10 leaves. Later stages harder to kill .
Potato Weed		730mL- 1.5L		1.2L				
Rapeseed		1.1-2.3L						
Rough Poppy		1.5L						
Safflower		730mL- 1.9L						
Shepherds Purse		1.5L- 2.3L			1.9L		1.1-1.5L	Spray young rosettes.
Skeleton Weed	1.9L	1.5-2.3L	1.9L				2-3.1L	Spray rosettes before aerial growth
Sorrel	1.9L	2.3L	1.9L					Only moderately susceptible.
Speedwell-ivy Leaf			1.5L					
Spiny Emex				1.9L				Only young plants are susceptible.
Stinkwort		1.1L – 1.9L						
Storkbill / Erodium					1.9L			
Sunflower (seedlings)	1.9L	730mL- 1.9L		1.2L			2.2-4.4L	Spray seedlings to young rosettes.
Thistle - Californian					800mL		4.4-5.1L	Repeated applications may be necessary (NSW, Tas only).
Saffron	1.5L	730mL- 1.867L	1.9L	1.9L	1.3L	1.5L	1.5-2.3L	Low rate only sufficient to control weeds in crops at rosette stage when sprayed early.
Slender / Shore Soldier	1.9L	1.1-1.9L			1.9L		1.5L 1.5L-2.2L NOT NSW, Tas	Suppression only. Spray young rosettes.
Spear Star	730mL					1.9L	1.5-2.2L 2.2-4.4L SA ONLY	Spray young rosettes. Use higher rate as flower stalk appears.
Variegated		730mL- 2.3L		1.2L	1.9L		1.5-2.3L	Spray at rosette stage.
Thornapple		1.1-1.5L					2.2-3.3L NOT SA	Spray seedlings only.
Turnip Weed/ Rapistrum		730mL- 1.5L		730L		1.1L	730mL – 1.5L	
Wards Weed			1.5L					
Wild Cabbage	1.9L							Spray multiple leaves
Wild Poppy	730mL						1.5-2.3L	Spray rosettes.
Wild Radish	1.9L	2.3L	1.9L	1.2L	1.9L	1.1L	1.1-1.5L	Spray up to young rosette stage.
Wild Turnip	310mL- 730mL	730mL- 1.5L	440mL		1.9L	930mL	730mL-1.5L	Spray 2-4 leaf up to rosette stage.
Vetches /Tares	1.9L		1.5L					Spray at multiple leaf stage.

## PLANT BACK DAYS FOR SMART PASS 450 HERBICIDE

Crop	Rates		
	Up to 730mL/ha	730mL- 1.5L/ha	1.5-2.3L/ha
Balansa Clover	7	7	10
Barley %	1	1	3
Chickpeas #	7	14	21
Cotton	10	14	21
Faba Beans	7	7	10
Field Peas	7	14	14
Lentils	7	7	10
Linseed	7	7	14
Lucerne	7	7	10
Lupins +	7	14	21
Medic	7	7	10
Narbon Beans	7	7	10
Navybeans	10	10	14
Oats	3	3	7
Perennial Ryegrass	7	7	10
Persian Clover	7	7	10
Phalaris	7	7	10
Canola / Rapeseed #	14	21	28
Rice	7	7	14
Safflower #	7	14	21
Sorghum @	3	7	10
Soybean	14	14	21
Sub-Clover	7	7	10
Sunflower @	7	10	14
Triticale %	1	3	7
Vetch	7	7	10
Wheat %	1	3	7
White Clover	7	7	10

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

### NOTES:

- % In Queensland, no rainfall is required to fall prior to commencement of Plant Back Period for wheat, barley and triticale.
- # In Queensland, planting of canola / rapeseed, chickpeas and safflower must be delayed for at least 14 days following rainfall of at least 15mm.
- @ In Central Queensland, when using 1.1L/ha or less of Smart Pass 450 Herbicide, the plant back period for sorghum and sunflower is 1 day irrespective of rainfall.
- + In WA the Plant Back Period for lupins at all rates is 28 days.

### GENERAL INSTRUCTIONS:

Smart Pass 450 Herbicide is a water-soluble liquid product with non-selective herbicidal activity against broadleaf weeds. Smart Pass 450 Herbicide will control emerged weeds only, and provides no residual control although certain plant back periods should be observed. Smart Pass 450 Herbicide is absorbed by plant foliage and accumulates to toxic levels in the regions of growth and reproduction, upsetting the ability of plants to balance the synthesis and use of nutrients. Visible effects are a gradual yellowing and wilting of the plants which advances to complete browning of above ground growth and deterioration of root systems. Effects may not be apparent for 7-10 days or even up to 21 days under cold or cloudy conditions. DO NOT treat weeds under poor growing or dormant conditions such as occur in drought, waterlogging, disease, insect damage, following frost, weeds heavily covered with dust or silt. Reduced results may also occur if weeds are under stress from previous herbicide application. Rainfall occurring up to 6 hours after application may reduce effectiveness. DO NOT spray if strong winds prevail.

### CROP ESTABLISHMENT

Smart Pass 450 Herbicide is recommended as a herbicide additive to glyphosate for control of emerged weeds prior to crop establishment. When Smart Pass 450 Herbicide is applied prior to crop establishment, certain Plant Back Periods should be observed to ensure that the herbicide has degraded sufficiently to allow safe sowing of the intended crop. This process is largely influenced by moisture, temperature and certain soil characteristics and may be delayed particularly when conditions are cold and dry. Refer to the Plant Back Period table for specific information. In seasons of heavy weed growth, or where the following conditions apply, it may be necessary to further delay sowing until a suitable seedbed can be formed. Conditions which can delay crop germination and seedling development include; \*Heavy green or decaying weed growth incorporated into the soil; \*Soil compaction or crusting; \*Cold and wet soils; \*Deep seeding; \*Prior use of residual or pre-emergent herbicides. To minimise these effects it is suggested that: \*Weed bulk be reduced by grazing

and cultivating to leave trash on the surface to dry out,; \*A friable seedbed be produced by cultivation, where necessary; \*The use of pre-emergent herbicides to be avoided if they might contribute to reduced germination; \*A correct seeding depth be used. The preferred alternative is to spray early to control any weeds in their less advanced stages and ensure the seedbed is in a suitable condition for early sowing when soil temperatures are not excessively cold.

**APPLICATION BOOM EQUIPMENT** Application of Smart Pass 450 /Glyphosate mixtures in spray volumes of 25-100L/ha is recommended. When 750g/kg Chlorsulfuron or 600g/kg Metsulfuron Methyl is included in the mixture a minimum spray volume of 30L/ha is recommended. When Simazine is included in the mixture a minimum spray volume of 100L/ha is recommended. Flat fan nozzle equipment is recommended using pressures in the range 240-280kPa. Boom height must be set to ensure double overlap of nozzle patterns at the top of the weed canopy.

#### **AERIAL EQUIPMENT**

Application of Smart Pass 450 /Glyphosate mixtures using either Micronair or boom equipment should occur in a minimum spray volume of 15L/ha. Droplets with an average size of 250-350 micron diameter are recommended. Swath width should be 15-17 metres. Application under hot conditions: High temperature and/or low relative humidity cause excessive evaporation of spray droplets which may reduce results. When temperatures reach 25 deg C increase water volume to 30L/ha, and increase droplet size to at least 300 micron diameter. DO NOT apply by aircraft when temperature is above 35 deg C. DO NOT use in intensive horticultural cropping areas. Thoroughly wash aircraft, especially landing gear after each day of spraying to remove herbicide residues.

#### **EQUIPMENT MAINTENANCE**

Spray solutions of Smart Pass 450 and Glyphosate should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fibreglass, plastic-lined containers. Do not mix, store or apply spray solutions in galvanised steel or unlined steel (except stainless steel) containers or spray tanks. Smart Pass 450 /Glyphosate spray solutions may react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture that can flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source. Thoroughly clean all equipment after use either by using hot soapy water or 1% solution of ammonia followed by several clean water rinses or use Spraymate Tank & Equipment Cleaner. If using Sulfonylurea herbicides (750g/kg Chlorsulfuron or 600g/kg Metsulfuron Methyl) follow decontamination procedures detailed on those product labels.

#### **COMPATIBILITY**

Smart Pass 450 is compatible in tank mixes with Glyphosate herbicides, 540g/L Glyphosate, 200g/L Dicamba, 750g/kg Chlorsulfuron, 600g/kg Metsulfuron Methyl, Simazine Flowable, Simazine DF, 500g/L Atrazine flowable, Atrazine DF, 135g/L Paraquat & 115g/L Diquat mixture, Chlorpyrifos 500EC, Dimethoate.

#### **SURFACTANT ADDITION**

DO NOT add surfactant excepting in conservation tillage where the product is to be tank-mixed with Glyphosate 450g/L. In this situation always add either a non-ionic surfactant (eg. 900g/L non-ionic surfactant) or the acidifying surfactant LI-700 in accordance with label directions on the Glyphosate 450g/L product or add Bonus with 540g/L Glyphosate. Use LI-700 with Glyphosate 450g/L CT if insecticides will be included in the tank mixture or if faster brownout of weeds is required. DO NOT mix with spraying oils, or any other materials or agricultural chemicals except as directed on this label. DO NOT use LI-700 or Bonus if sulfonylurea herbicides (750g/kg Chlorsulfuron or 600g/kg Metsulfuron Methyl) are included in the spray mixture.

#### **TANK MIXTURES**

The Smart Pass 450 Herbicide directions for use on this label are designed to be used as a tank mixture with Glyphosate 450g/L. However as shown in the compatibility and surfactant addition sections of this label, it is possible to extend/improve weed control to include other foliage applied and/or residual herbicides and adjuvants. A mixture of Smart Pass 450 and Glyphosate may be tank mixed with the following herbicides, insecticides and adjuvants where recommended in the Directions for Use tables. Read and follow all label directions, restraints and plant back periods, withholding periods and safety directions for the tank mix products.

Dicamba 500g/L - For improved control of Sow Thistle. Observe any regional use restrictions Chlorsulfuron 750g/kg - Will provide control for a wide range of broadleaf weeds and grasses. **600g/kg Metsulfuron Methyl** - For improved knockdown control of Yellow Burrweed (Amsinckia), Volunteer Chickpeas, Chickweed, Common Sowthistle, Cut-leaf Mignonette, Deadnettle, Faba Beans, Mallee Catchfly, Soursob, Stagger Weed, Wild Garlic. 600g/kg Metsulfuron Methyl does not provide residual in-crop weed control.

#### **INSECTICIDES**

Chlorpyrifos 500EC and Dimethoate can be introduced into the tank mix for specific control to prevent insect damage to emerging crops.

## MIXING INSTRUCTIONS

Smart Pass 450 Herbicide mixes readily with water. Ensure the spray tank is free of any residue of previous spray materials.

1. Fill the spray tank with clean water to one half of the required amount and start agitation. Do not use mechanical agitators as these may cause excessive foaming when herbicides are added.
2. Where either Bonus or LI-700 acidifying surfactant is recommended at either 100mL or 300mL/100L, add to tank through top mesh screen.
3. Add recommended herbicide additive / insecticide to the spray tank and mix thoroughly.
4. Add Smart Pass 450 Herbicide and mix thoroughly.
5. Add Glyphosate 450g/L and the remaining water.
6. When non-ionic surfactant is used, add near the end of the filling process to minimise foaming.
7. Always maintain adequate agitation during application and use the tank mix promptly.

## RESISTANT WEEDS WARNING

GROUP	I	HERBICIDE
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Smart Pass 450 Herbicide is a member of the Phenoxy group of herbicides. Smart Pass 450 Herbicide has the Disruptors of plant cell growth mode of action. For weed resistance management Smart Pass 450 Herbicide is a Group I herbicide. Some naturally occurring weed biotypes resistant to Smart Pass 450 Herbicide and other disruptors of plant cell growth 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 Smart Pass 450 Herbicide or other disruptors of plant cell growth herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Crop Smart Pty Ltd accepts no liability for any losses that may result from the failure of Smart Pass 450 Herbicide to control resistant weeds.

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

**Drift Warning:** Direct spray contact or even slight drift may cause severe injury or destruction of any growing crop or other desirable plants including trees and native vegetation. DO NOT use when breeze is blowing towards nearby desirable plants. DO NOT apply under meteorological conditions or from spraying equipment that may cause spray to drift onto nearby susceptible plants, adjacent crops, croplands or pastures. Equipment settings which produce fine droplets (150 microns or less), winds over 8km/h, "still air" and hot dry days all contribute to drift. Avoid spray drift onto susceptible crops such as cotton tobacco, tomatoes, flowers, vegetables, vines, fruit trees, legume crops and pastures, oil seed crops or other susceptible crops and trees (eg Kurrajongs, Belahs, Eucalypts)

DO NOT use unless wind speed is more than 3 kilometres per hour and less than 15 kilometres per hour as measured at the application site.

DO NOT apply with smaller than coarse to very coarse spray droplets according to the ASAE S572 definition of standard nozzles.

## PROTECTION OF LIVESTOCK

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

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used container.

## STORAGE AND DISPOSAL

Store in the original container, tightly closed in a safe well-ventilated area, as cool as possible. DO NOT store for prolonged periods in direct sunlight.

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

If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm 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 and product.

*Refillable containers (110L, 1000L)* : Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

**SAFETY DIRECTIONS**

Poisonous if swallowed. Avoid contact with eyes and skin. DO NOT inhale spray mist. When preparing spray, wear PVC or rubber apron, elbow length PVC gloves and face shield. When using the prepared spray, wear face shield. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms, and face thoroughly with soap and water. After each day's use wash gloves, face shield and contaminated clothing.

**FIRST AID**

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

**MATERIAL SAFETY DATA SHEET**

For further information refer to the Material Safety Data Sheet which is available from the supplier.

**CONDITION OF SALE**

Crop Smart Australia Limited ("Crop Smart") shall not be liable for any loss, injury, damage or death whether consequential or otherwise whatsoever, or howsoever arising through negligence or otherwise in connection with the sale, supply, use or application of this product. The supply of this product is on the express conditions that the purchaser does not rely on Crop Smart's skill or judgement in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Crop Smart has any authority to alter these conditions.

THIS PRODUCT IS NOT CONSIDERED TO BE A DANGEROUS GOOD UNDER THE AUSTRALIAN CODE  
FOR THE TRANSPORT OF DANGEROUS GOODS BY ROAD AND RAIL

