

Product Name: Avilive Clopyralid 750SG Herbicide  
APVMA Approval No: 95089/144638



Label Name:	Avilive Clopyralid 750SG Herbicide
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	750 g/kg CLOPYRALID PRESENT AS THE POTASSIUM SALT
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Mode of Action:	GROUP 4 HERBICIDE
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Statement of Claims:	For the control of a wide range of broadleaf weeds in forests, wheat, barley, oats, triticale, canola, pastures and fallow land as specified in the Directions for Use.
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Net Contents:	2 kg - 10 kg
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Restrains:	<p><b>RESTRAINTS</b></p> <p>DO NOT apply to weeds which may be stressed (inactive growth) due to prolonged periods of extreme heat or cold, moisture stress (water logging or drought) or previous herbicide treatment as reduced levels of control may result.</p> <p>DO NOT sow susceptible crops in NSW, Vic, SA or WA (winter dominant rainfall areas - see Protection Of Crops section) for nine months following any application up to 120g/ha, twelve months following an application of 120g/ha to 200g/ha and two years following an application of more than 200g/ha.</p> <p>DO NOT apply this product by air or mister within a Chemical Control Area in Victoria without a valid permit.</p> <p>DO NOT spray if rain is likely within 3 hours.</p> <p>DO NOT apply later than the eight leaf stage of canola or the 1st node stage of winter cereals.</p> <p>DO NOT apply immediately prior to sowing susceptible crops including chickpeas, faba beans, field peas, lentils and lupins or pastures with a Lucerne, medic or clover component.</p> <p><b>SPRAY DRIFT RESTRAINTS</b></p> <p>Specific definitions for terms used in this section of the label can be found at <a href="http://apvma.gov.au/spraydrift">apvma.gov.au/spraydrift</a></p>
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	<p>DO NOT allow bystanders to come into contact with the spray cloud.</p> <p>DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.</p> <p>DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.</p> <p>DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings 1 to 2 hours before sunset and persist until 1 to 2 hours after sunrise.</p>
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	<p>Pastures: DO NOT GRAZE OR CUT TREATED PASTURES FOR STOCK FEED FOR 7 DAYS AFTER APPLICATION OF RATES OF 1600 g/ha OR LESS.</p> <p>Cereals: DO NOT GRAZE OR CUT TREATED CEREALS FOR STOCK FEED FOR 4 WEEKS AFTER APPLICATION IF RATE IS IN EXCESS OF 120 g/ha. DO NOT APPLY LATER THAN 10 WEEKS BEFORE HARVEST.</p> <p>Canola: DO NOT HARVEST, GRAZE OR CUT FOR STOCK FEED EARLIER THAN 12 WEEKS AFTER APPLICATION.</p>
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Trade Advice:	
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General Instructions:	This section contains file attachment.
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Resistance Warning:	<p><b>RESISTANT WEEDS WARNING</b> <b>GROUP 4 HERBICIDE</b></p> <p>Avilive Clopyralid 750SG Herbicide is a member of the Pyridines group of herbicides. The product has the disrupters of plant cell growth mode of action. For weed resistance management, the product Avilive Clopyralid 750SG Herbicide is a Group 4 herbicide. Some naturally occurring weed biotypes resistant to the product and other Group 4 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 the product or other Group 4 herbicides. Since occurrence of resistant weeds is difficult to detect prior to use, ZHEJIANG HENGDIAN IMP. &amp; EXP. CO LTD accepts no liability for any losses that may result from the failure of the product to control resistant weeds. Strategies to minimise the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant, local Department of Agriculture, or ZHEJIANG HENGDIAN IMP. &amp; EXP. CO LTD representative.</p>
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Precautions:	
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Protections:	This section contains file attachment.
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Storage and Disposal:	<p><b>STORAGE AND DISPOSAL</b></p> <p>Store in the closed original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Store in area sheltered from rainfall.</p> <p>DO NOT store near feedstuffs, fertilizers or seed.</p> <p>Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.</p> <p><b>SMALL SPILL MANAGEMENT</b></p> <p>Sweep up material and contain in a refuse vessel for disposal in the same manner as for containers (see Storage and Disposal section)</p>
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Safety Directions:	<p><b>SAFETY DIRECTIONS</b></p> <p>Will irritate the eyes. Avoid contact with eyes. When mixing and loading, wear cotton overalls, over normal clothing, buttoned to the neck and wrist, and chemical resistant gloves. If applying by hand, wear cotton overalls, or equivalent clothing, buttoned to the neck and wrist and chemical resistant gloves. Wash hands after use. After each day's use, wash gloves and contaminated clothing.</p>
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First Aid Instructions:	<p>If poisoning occurs, contact a doctor or Poisons Information Centre. Phone: Australia 131126.</p>
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First Aid Warnings:	
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## DIRECTIONS FOR USE

IT IS ESSENTIAL to select a rate appropriate to weed size. Best results will be obtained when weeds are actively growing at treatment.

**Table 1. Winter Cereals and Canola: Pre-Sowing Knockdown**

WEED	WEED STAGE	RATE g/ha	CRITICAL COMMENTS
Capeweed, volunteer chickpea, volunteer faba beans, vetch and sub-clover	Up to 8 leaf and max. 10cm diameter	60 plus knockdown herbicide	Pre-sowing: This rate should only be used in tankmixture with formulations of 135 g/L paraquat/ 115 g/L diquat SL or 360 g/L glyphosate SL products.

**Table 2. Winter Cereals and Canola: Pre-Emergence to 3 leaf crop stage**

WEED	WEED STAGE	RATE g/ha	CRITICAL COMMENTS
Capeweed (In cereals only, WA only)	Pre-emergence to 8 leaf and max. 10cm diameter	60 plus Diuron 900 at 165 g/ha	Post sowing pre-emergent to 3 leaf: This rate should only be used in tank mixture with diuron for control of transplants.  Rates of 120-200 g/ha give good suppression (reduced seed set and up to 80% weed control). 240g/ha is required for good control of capeweed and sub-clover. Apply to moist soil and time treatment for major germination of weeds. Good soil moisture and application close to time of weed germination is essential for best control.
Capeweed, volunteer faba bean and sub-clover	Pre-emergence	120-240	

**Table 3. Winter Cereals: Early Post-Emergence 2 leaf to 1<sup>st</sup> node crop stage**

WEED	WEED STAGE	RATE g/ha	CRITICAL COMMENTS
Capeweed (WA only)	Cotyledons to 6 leaf and max. 5cm diameter	60	<b>Early post-emergent:</b> Weeds should be young, actively growing and not larger than listed size. Weeds will become stunted and non-competitive soon after application, although final results may not show for some weeks.
Capeweed Soldier Thistle St Barnaby's Thistle	Up to 10cm diameter (4 to 8 leaf)	120	
Chickpea lentils and safflower (volunteers)	Up to 6 leaf	100	
Faba beans and lupins (volunteers)	Up to 4 leaf	100	
Field pea (volunteers)	Max. 10cm high or 6 nodes	60	Faba beans and lupins will usually survive, but will be stunted, uncompetitive and generally not set viable seed.
Medic and seedling Lucerne (volunteers)	Up to 8 leaf	60-80	For best control of hairy leaved medics such as Snail medic, add 500mL Uptake Spraying Oil / 100L of water.
Sub-clover (volunteers)	Up to 6 leaf		
Vetch (volunteers)	Runners up to 10cm and max. 16 leaf	40	

**Table 4. Winter Cereals: Post-Emergence tank mixtures WA, SA, Vic, Tas, NSW only (unless specified)**

WEED	WEED STAGE	RATE g/ha	CRITICAL COMMENTS
Capeweed	Up to 4 leaf, 10cm diameter	80-120 plus 20 g/ha Chlorsulfuron 750 WG	Chlorsulfuron 750 WG mixes – 2 leaf to 1 <sup>st</sup> node crop stage.
		40 plus 5 g/ha Metsulfuron-methyl 600 WG + 0.45 L/ha 570 LV MCPA	Metsulfuron-methyl 600 WG/ 570 LV MCPA mixes – 4 to 5 leaf to 1 <sup>st</sup> node crop stage.
		40 plus 0.75 L/ha Tigrex	Tigrex mixes- 3 leaf to 1 <sup>st</sup> node crop stage, but not on Barley or Kulin wheat in WA.
Field peas (volunteer)	Up to 6 node, 10cm diam.	40 plus 5 g/ha Metsulfuron-methyl 600 WG + 0.35 L/ha 570 LV MCPA or 30 plus 0.6 L/ha 570 LV MCPA	Use 30g/ha only in combination with 570 LV MCPA. Avilive 750SG + 570 LV MCPA mixes– 4 to 5 leaf to 1 <sup>st</sup> node crop stage.
Vetch (volunteer)	Up to 4 branch, 10cm diam.		
Chickpea (volunteer)	Up to 4 branch, 10cm diam.	40 plus 5 g/ha Metsulfuron-methyl 600 WG + 0.3-0.6 L/ha 570 LV MCPA	Metsulfuron-methyl 600 WG/ 570 LV MCPA mixes – 4 to 5 leaf to 1 <sup>st</sup> node crop stage.
Faba bean (volunteer)	Up to 4 node, 10cm tall		
Lupin (volunteer)	Up to 6 leaf, 10cm tall		
Sub-clover (volunteer)	Up to 5 trifoliolate, 5cm diam		
Prickly lettuce	Up to 6 leaf, max. 10cm diam		
Medic (volunteer)	Up to 6 leaf, max. 5cm diam.		
Prickly lettuce	Up to 6 leaf, max. 10cm diam.	60 plus 600 mL/ha 570 LV MCPA	Avilive 750SG + 570 LV MCPA mixes – 4 to 5 leaf to 1 <sup>st</sup> node crop stage.
Thistles including: Nodding, Saffron Scotch, Slender Spear, Stemless, Variegated	Rosettes up to 10cm max. diam	20 plus 0.65 L/ha MCPA 750 or 20 plus 600 mL/ha 570 LV MCPA	For thistle control, Avilive 750SG rate will depend on density, growth stage, climatic conditions and the time of application. Use higher rates for best control where high density and/or large weeds occur. MCPA or 2,4-D mixes apply from 4-5 leaf to 1 <sup>st</sup> node crop stage.
St Barnaby's Thistle	4 to 8 leaf, 5 to 10cm across	20-40 plus 0.5-1.0 L/ha 2,4-D amine (625 g/L) AC or 0.65-1.0 L/ha MCPA 750	
Sowthistle (Common) (WA, SA, Vic, Tas, NSW and Qld)	Young rosettes up to 8 true leaves	40 + 0.8 L/ha Picloram/ MCPA K salt (26+420 g/L) SC or 5 g/ha Metsulfuron-methyl 600 WG+ 0.6 L/ha 570 LV MCPA	Apply to actively growing young rosettes. Use Uptake Spraying Oil at 500mL/100L of water for improved control with picloram/MCPA K salt (26+420 g/L) SC tank mixes or BS1000 with metsulfuron-methyl 600 WG / 570 LV MCPA tank-mixes. Apply tank-mixes from 4-5 leaf to 1 <sup>st</sup> node crop stage.
Skeleton weed (NSW, Vic, SA, and WA only)	5 to 15cm rosettes	200 plus 0.65 L/ha MCPA 750	Weeds should be a minimum 5cm in diameter, and growing actively. This rate will give control until harvest and substantially reduce weed numbers the following season. Apply from 4-5 leaf to 1 <sup>st</sup> node crop stage.

**Table 5. Canola Post-Emergence 2 to 8 leaf crop stage.**

WEED	WEED STAGE	RATE g/ha	CRITICAL COMMENTS
Capeweed, Cotula, Saffron thistle, Skeleton weed, Soldier thistle	Up to 10cm diameter (4 to 8 leaf)	120	Weeds should be young and actively growing. Weeds will become stunted and will not be competitive soon after application although final results may not show for some weeks. Skeleton weed will only be controlled until harvest. For the control of annual grasses: Avilive 750SG is compatible with Haloxyfop 520 Herbicide. Uptake Spraying Oil should be added to this tank-mix for best grass control. Avilive 750SG + Haloxyfop 520 Herbicide + Uptake Spraying Oil is compatible and selective to canola.
Chickpea, Lentils and Safflower (volunteer)	Up to 6 leaf	100	
Faba beans and Lupins (volunteer)	Up to 4 leaf		
Filed peas (volunteer)	Maximum 10cm high or 6 nodes	60	Faba beans and lupins will usually survive, but will be stunted, uncompetitive and generally not set viable seed.
Medics and Lucerne seedlings (volunteer)	Up to 8 leaf		
Sub-clover (volunteer)	Up to 6 leaf		
Vetch (volunteer)	Runners to 10cm max. 16 leaf	40	For best control of hairy leaved medics such as Snail medic, add 500mL Uptake Spraying Oil/100L water.  Will not control Woolly pod vetch.
St Barnaby's thistle	4 to 8 leaf, 5 to 10cm diameter	60-120	Avilive 750SG rate will depend on weed density, growth stage, climatic conditions and time of application. Use higher rates for best control where high density and/or large weeds occur.

**Table 6. Herbicide Tolerant canola: Post Emergence 2 to 8 leaf crop stage.**

WEED	WEED STAGE	RATE g/ha	CRITICAL COMMENTS
<b>Clearfield Canola</b>			
Common Cotula, Capeweed	Up to 6 leaf	60 + 40 g Imazapic + imazapyr	Where capeweed is a significant component of the weed spectrum, a tank-mix with Avilive 750SG may be needed post-emergence. DO NOT exceed this rate as reduced control of grass weeds may occur.
<b>Triazine tolerant Canola</b>			
Capeweed, Lupins (volunteer), Saffron thistle, Skeleton weed, Soldier thistle and weeds from conventional canola	Up to 6 leaf	120	Avilive 750SG is compatible with atrazine and simazine for use in triazine tolerant canola. Uptake Spraying Oil at 500mL/100L of water should be added to this mix for best grass and broadleaf weed control. For the control of annual grass weeds Avilive 750SG + Atrazine 900 + Haloxyfop 520 Herbicide + Uptake Spraying Oil are compatible and selective to Triazine tolerant canola.

**Table 7. Pastures and Fallow Land – Post-emergence (Established perennial grass and sub-clover based pastures) (Boom spray application if not specified).**

WEED	WEED STAGE	RATE	STATE	CRITICAL COMMENTS
Hardhead thistle (creeping knapweed, Russian knapweed)	Actively growing plants	<b>Handgun:</b> 200g/100L of water <b>Boom spray:</b> 800 or 1600g/ha	Vic & Qld only	<b>See Critical Comments below for spraying thistles in pastures and fallow land.</b>  Only use the 1600g/ha rate in Qld by boom spray.
St Barnaby's thistle	5 to 8 leaf and 5 to 10 cm diameter	20 or 40 plus 0.5-1 L/ha 2,4-D amine (625 g/L) AC or 1.5-2.5 L/ha 2,4-DB or 1 L/ha paraquat 250 SL or 0.55-0.8 L/ha Simazine 900 + 1 L/ha 2,4-DB	NSW, Vic, Tas, SA and QLD only	
Thistles including: Nodding Variegated Scotch, Spear, Slender Saffron, St Barnaby's	Rosette stage prior to stem elongation	20 or 28 g/ha plus 0.65-1 L/ha MCPA 750 /ha <b>Drench gun:</b> 20 g/1L of water <b>Hand gun:</b> 100 g/100L of water	WA, NSW, Vic, Tas, SA and Qld only	
Nodding thistle	Rosettes up to 20cm diameter	40	NSW only	Apply the spray from September to October. Apply by boom spray only. <b>DO NOT</b> apply to thistles over 20cm in diameter. When thistles are over 20cm in diameter use Avilive 750SG plus MCPA (referred to above)  <b>Clover Damage:</b> Damage to white clover will be no greater than damage with MCPA alone and less than damage from Avilive 750SG plus MCPA mixtures. Damage to sub- clover may be greater than with MCPA or 2,4-D alone. <b>DO NOT</b> use for spot treatment.
Californian thistle	From early buds to flowering (December to February)	<b>Hand gun:</b> 100 g/100L of water <b>Boom spray:</b> 800 g/ha	Vic and Tas only	Addition of a wetting agent at label rates is recommended. Retreatment of regrowth in the year following treatment will usually be necessary to achieve a high level of control. <b>NOTE:</b> Clovers and medics will be eliminated for at least 1 year.
Lucerne	30 to 40cm high pre-flowering	120 plus 1.5-2 L/ha Glyphosate IPA (450 g/L) SL plus either 1.5 L/ha MCPA 750 or 2 L/ha 2,4-D amine (625 g/L) AC or 1.76 L/ha 2,4-D ester (680 g/L) EC	Qld, NSW, Vic, SA, WA	Treat healthy, actively growing Lucerne in early spring prior to flowering. After grazing or cutting, allow Lucerne to regrow for approx. 4 weeks before treatment. For best control, do not re-graze for > 2 weeks after application. For complete control of Lucerne in pasture, cultivate approx. 1 month after herbicide treatment.

Critical Comments – Thistle control in pasture.

- 1. Hardhead thistle – DO NOT USE HANDGUN APPLICATION ON LUCERNE, CLOVERS AND MEDICS AS THEY WILL BE ELIMINATED FOR AT LEAST ONE YEAR. Victoria only:** Use the lower rate only on light soils (sand and sandy loam) where a slightly lower degree of control is acceptable. Use the higher rate on all soil types where complete control

is required. Addition of a wetting agent at label rates is recommended for treatment of hardhead thistle. Spray between September and April on actively growing plants for effective control. Thorough coverage is essential. Apply in 200 to 250 L of water/ha.

2. **BOOM SPRAYING:** Use the higher rates of Avilive 750SG plus MCPA on multicrowned plants or rosettes larger than 30cm in diameter. Spraying may be done at any time during growth, usually in early winter or spring. Avoid spraying during the dormant winter period or at any time when thistles are not actively growing. Do not spray flowering thistles.
3. **PRE-SPRAY MANAGEMENT:** The pasture should be slightly grazed prior to spraying to reduce clover and grass cover and expose the smaller thistles to the spray. The grazed pasture should be left seven days to allow thistles to freshen prior to treatment.
4. **POST-TREATMENT MANAGEMENT:** Response of thistles to treatment with the Avilive 750SG plus MCPA mixture will be slow compared to the standard treatments with 2,4-D or MCPA. If possible, delay grazing of sprayed thistles for 14 days after treatment.
5. **CLOVER DAMAGE:** Avilive 750SG plus MCPA or 2,4-D mixtures can be damaging to clover. The low rate is no more damaging than label rates of 2,4-D or MCPA. Use 20g/ha mixes when clover is at the 6 trifoliate leaf stage to just prior to flowering. The 28 g/ha mix will reduce the clover component of the pasture for about two months. Use the 28 g/ha mix from 6 trifoliate leaf stage to flowering to minimise clover injury, and when clover has reached the 6 to 8 trifoliate leaf stage and where thistles are large due to early germination. Clover recovery will be quicker during periods of active growth. If clover damage is the major consideration, use the lower Avilive 750SG rate to minimize damage.
6. **PARAQUAT MIXES ARE FOR LUCERNE PASTURE USE ONLY.** Simazine mixes are for silver grass control and for lucerne based pastures only.
7. **HANDGUN (Spot spray):** Treat from rosettes stage to early flowering. Thorough spraying is necessary.
8. **DRENCHGUN:** Apply 10mL to rosette crown. To multicrown plants, apply 10mL to each crown.

**Table 8. Pre-Planting: Boom and Aerial Application**

<b>FORESTS AND PLANTATION TREES INCLUDING <i>EUCALYPTUS</i> SPP., <i>CORYMBIA MACULATA</i> AND <i>PINUS RADIATA</i></b>				
<b>WEEDS CONTROLLED</b>	<b>WEED GROWTH STAGE</b>	<b>STATE</b>	<b>RATE g/ha</b>	<b>CRITICAL COMMENTS</b>
Capeweed Thistles Volunteer Legumes Flatweed Fleabanes	Pre-emergent	All	800-2400	Use the higher rate for extended pre-emergence control (>3months)
<b><i>PINUS RADIATA</i> only</b>				
<b>WEEDS CONTROLLED</b>	<b>WEED GROWTH STAGE</b>	<b>STATE</b>	<b>RATE g/ha</b>	<b>CRITICAL COMMENTS</b>
Silver wattle (suppression)	Pre-emergence from seeds	NSW, ACT, Vic, SA and Tas only	2400	For best results, apply Avilive 750SG to bare soil just prior to spring rain or when wattles are expected to germinate. Avoid application to heavy trash situations. A high level of suppression may not be achieved where rain does not fall for an extended period after application (>1 month), or where very high rainfall occurs after application (>1200mm/yr)



Table 9. Post-Planting: High Volume Spraying by Hand Gun

FORESTS AND PLANTATION TREES INCLUDING <i>EUCALYPTUS</i> SPP., <i>CORYMBIA MACULATA</i> AND <i>PINUS RADIATA</i>				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE g/ha	CRITICAL COMMENTS
Groundsel bush	Young seedlings to mature plants	Qld, NSW and ACT only	130 or 200	Spray foliage when growth is active. Use the lower rate on young seedlings and the higher rate on plants more than 2m tall or when growth is slow.
Ragwort	Actively growing rosettes up to stem elongation and before flowering	All	80 to 120	Spray from the rosette to the shooting stage of growth. Use the higher rate on large multi-crown plants. Addition of BS1000 at 0.1% v/v is recommended. Add Diquat 200 at 1L/100L water plus a surfactant after opening of the first flowers, to prevent the formation of viable seed. Where Diquat 200 is added use a directed spray to avoid tree injury.
Silver wattle	Active growth spring to summer	NSW, ACT, SA, Tas and Vic only	200	For effective control apply when bushes are growing actively. Large trees will not show complete necrosis. HANDGUN: Means high volume NOT Low volume knapsack. (See DIRECTIONS FOR USE, APPLICATION). Spray to the point of run-off to give full coverage of leaves and stems. Add 1020 g/L polyether modified polysiloxane LD at 200mL/100L for optimum results.
Cape Ivy	Any growth stage	Vic and Tas only	1300	Application may be made at any time of the year providing foliage is dry at the time of the application. Avoid spraying non-target plants. <b>Low volume application.</b> For application by hand held weed wiper or C.D.A. use at dilution with water of 100g/L.

Table 10. Post-Planting: Boom and Aerial Application

FORESTS AND PLANTATION TREES INCLUDING <i>EUCALYPTUS</i> SPP., <i>CORYMBIA MACULATA</i> AND <i>PINUS RADIATA</i>				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE g/ha	CRITICAL COMMENTS
Flatweed Capeweed Thistles (except Hardhead thistle) Volunteer Legumes Skeleton weed	Actively growing rosettes, seedlings up to 15cm diameter or height	All	200 to 400	Cupping of the tip leaves and 'weepy leader' symptoms may occur on certain <i>Eucalyptus</i> spp. and <i>Corymbia maculata</i> and are generally transient symptoms and do not result in long-term injury. These symptoms may be more obvious at rates of 400g/ha or higher or where mixtures are used on blue gum, shining gum and spotted gum. Where 'weepy leader' effect is a concern use a directed spray.
Flatweed Fleabanes Capeweed Thistles including Hardhead thistle Volunteer Legumes Skeleton weed	Actively growing rosettes and seedling greater than 15cm diameter or height up to stem elongation and before flowering	All	800	Use the 200g rate until 3 months post-planting and the 400g rate for trees 3 months and older. Use the low rate only under ideal conditions with excellent weed growth and where knockdown control of small weeds is desired. Use the high rate where longer control is required of larger weeds. For the control of annual and certain perennial grasses Avilive 750SG can be tank mixed with Haloxypop 520 Herbicide. See also comments on mixing in DIRECTION FOR USE.  Uptake Spraying Oil should not be used in tank mixes with Haloxypop 520 Herbicide and Avilive 750SG on sensitive species such as blue gum, shining gum and spotted gum where rates of Avilive 750SG are more than 800g/ha. Use BS1000 at 0.1% v/v instead.
Californian thistle	From early bud to flowering (Dec to Feb)			For best control of California thistle use BS1000 at 0.1% v/v. A second annual application may also be required for best control.
Ragwort	Small rosettes to larger rosettes up to stem elongation and before flowering	All	400 or 800	Spray from the rosettes to the shooting stage of growth. For small rosette seedling plants use the lower rate. For large rosette multi-crown and/or perennial plants use the higher rate. Addition of BS1000 at 0.1% v/v is recommended. Add Diquat 200 at 1L/100L water plus a surfactant after opening of the first flowers, to prevent the formation of viable seed. Where Diquat 200 is added use a directed spray to avoid tree injury.
Sorrel (suppression only)	Actively growing rosettes, seedling up to 15cm diameter or height		2400-3400	High rates give better suppression. At rates greater than 2400 g use a directed spray to avoid tree injury.

<b>PINUS RADIATA AND EUCALYPTUS SPP. PLANTATIONS ONLY</b>				
<b>WEEDS CONTROLLED</b>	<b>WEED GROWTH STAGE</b>	<b>STATE</b>	<b>RATE g/ha</b>	<b>CRITICAL COMMENTS</b>
Silver wattle	Active growth spring to summer (0.5 to 2m tall)	NSW, ACT, SA, Tas and Vic only	2000	For effective control apply when bushes are growing actively. Large trees will not show complete necrosis. For boom spraying apply in 150 to 200L of water/ha. For aerial treatment apply in a minimum of 50L/ha of water containing 25 to 50% by volume of anti-evaporant oil such as Uptake Spraying Oil <sup>1</sup> . Mix Avilive 750SG and water first and then add Uptake Spraying Oil. Maintain continuous agitation. At rates of 2800 g and 3400 g for Eucalyptus spp. use a directed spray to avoid tree injury.
	Active growth spring to summer (2 to 4m tall)		2800	
	Active growth spring to summer (4 to 8m tall)		3400	

Table 11. Agricultural Non-crop Areas, commercial and Industrial Areas, Forests, pastures and Rights-of Way – Stem Injection Application on Acacia Species

Mix 200g Avilive 750SG with 2.5 litre of water and apply the diluted mix as directed below

<b>WEED GROWTH STAGE</b>	<b>APPLICATION RATE</b>	<b>CRITICAL COMMENTS</b>
Single stem less than 25cm diameter at base	1mL of the diluted mix per cut @ 10 to 13cm centres	Apply to waits high cuts. See General Instructions Application section for application method details.  DO NOT exceed the recommended spacings from the centre of one cut to the centre of the next cut.  Inject each stem of a multi stem tree where possible.
Multiple stems or more than 25cm diameter at base	2mL of the diluted mix per cut @10 to 13cm centres	

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

## GENERAL INSTRUCTIONS

### MIXING:

Measure the required quantity of granules by weighing on scales.

Avilive 750SG granules are highly soluble in water and will dissolve rapidly once added to fast moving water.

Maintain agitation **at all** times, including during mixing as well as spraying.

#### 1. Spray rigs that top-fill

For spray rigs that fill through hoses into the top of the tank, quarter fill the tank, add the Avilive 750SG, then continue to fill the tank.

#### 2. Spray rigs with premix hoppers

For spray rigs that have a drop-down chemical induction hopper, three-quarter fill this hopper with water and have the rinsing sprinkler operating. Add the Avilive 750SG and when dissolved, transfer this batch into the quarter filled main tank. Continue to rinse the hopper until the entire product has washed through.

#### 3. Spray rigs with limited bypass agitation

For spray rigs that have limited bypass agitation, then as for most granulated formulations, pre-dissolve the Avilive 750SG in a bucket before adding them to the main tank. Add Avilive 750SG while stirring until the granules have dissolved.

#### 4. Tank-mixes: The following order should be followed:

1. **Quarter** fill the spray tank maintaining agitation.
2. Add Avilive 750SG granules, using the mixing procedure above.
3. Add Haloxypop 520 **if it is to be used in the tank-mix**.
4. Add water to **Half** fill the spray tank.
5. Add wettable powders, water dispersible granules or suspension concentrates.
6. Add other emulsifiable concentrates including other selective grass herbicides.
7. If Uptake Spraying Oil is to be used add this when spray tank is **Half** full.
8. If other adjuvants or a wetting agent is to be used then add these according to their label.
9. Add water to bring to the **final spray volume**.

Only mix sufficient spray solution for immediate use and avoid storing.

## APPLICATION

### BOOM SPRAYING CROP and PASTURES:

- Apply Avilive 750SG in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft, delivering 200 - 300 micron droplets and not less than 50 L/ha water volume for boom sprayers or not less than 20 L/ha for aerial applications.
- Hardhead thistle – Use a spray volume of 200 to 250 L/ha of water.
- Silver wattle – Use a spray volume of 150 to 200 L/ha of water by ground boom spray and a minimum spray volume of 50 L/ha by aircraft.

### HIGH VOLUME HAND GUN:

Apply the recommended mix to give full coverage of leaves and stems through a No. 6-8 tip at 700 to 1500 kPa. Spray volume for effective coverage of dense pasture weeds should be 10 to 15 litres of spray per 100 m<sup>2</sup> (10m x 10m) of infestation. For larger areas an equivalent would be 1000 to 1500 litres per infested hectare. Spray volume for effective coverage of dense 2m high silver wattle should be 30 to 40 litres of spray per 100 m<sup>2</sup> (10m x 10m) of infestation. For larger areas an equivalent would be 3000 to 4000 litres per infested hectare.

### STEM INJECTION

- To make a stem injection pocket at waist height, use a ¾ length axe with a blade width of 5 to 7cm. The axe cut must be through the bark and deep enough to place all the chemicals in contact with the sap wood.
- The chemical must be applied immediately after the injection pocket is made. Apply chemical with a Philips 5mL vaccinator fitted with a tree injector kit which can be accurately calibrated. Set vaccinator to deliver 1mL of the diluted mix.
- When treating re growth less than the width of the axe, ensure chemical does not run out the

sides of the cut, as reduced control will result. This can be overcome by using the corner of the axe to make the pocket in the stem.

**CLEANING SPRAY EQUIPMENT:**

**Rinse water should be discharged onto a designated disposal area or, if this is unavailable, onto unused land away from desirable plants and watercourses.**

**PARTIAL CLEANING** (before spraying crops that are selective to Avilive 750SG):

- After using Avilive 750SG, empty the tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose. Quarter-fill the tank with clean water and circulate through the pump, line, hoses and nozzles. Drain and repeat procedure twice.

**COMPLETE CLEANING** (before spraying crops that are susceptible to Avilive 750SG residues):

- After using Avilive 750SG, empty the tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose. Quarter-fill the tank with clean water and circulate as above, then drain.
- Quarter-fill the tank again and add an alkali detergent (e.g. Surf\*, Omo\*, Drive\*) at 500mL/100L water or 500g/100L water and circulate throughout the system for at least fifteen minutes.
- Drain, remove filters and nozzles and clean separately. Rinse inside the tank thoroughly using a pressure hose and flush system with clean water. Chlorine based cleaners are NOT recommended. Rinse water should be discharged onto a designated disposal area, or if this is unavailable, onto unused land away from desirable plants and water sources.

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

- Do not apply under weather conditions, or from spraying equipment that may cause spray drift onto nearby susceptible plants/crops, cropping lands or pastures.
- Susceptible crops and plants include, but are not limited to chickpeas, cotton, faba beans, field peas, fruit trees, lentils lupins, Lucerne, medics, ornamentals, potatoes, safflower, sub-clover, tomatoes, vegetables, grape and kiwifruit vines, wattles and white clover.
- Do not apply Avilive 750SG to crops or pastures, which are intended to be cut for the production of compost or mulches to be used with susceptible crops or plants. The use of straw, hay or other plant material treated with Avilive 750SG Herbicide for composting or mulching susceptible crop may damage these crops.
- Note: Field peas and faba beans are particularly susceptible and should not be sown the season following an application of 200g/ha.
- Where rates in excess of 200g/ha have been used, susceptible crops, including field peas and faba beans should not be sown for at least two years.

### Plantback period SNSW, Vic, SA, WA (winter rainfall areas)

Rate Avilive 750SG g/ha	Up to 120	200	>200
Chickpeas, field pea, faba bean, lupins, medics & clover	9 months	12 months	24 months
Wheat, barley, oats	1 week	-	-

### Plantback period NSW, QLD (summer rainfall areas)

Rate Avilive 750SG g/ha	30	60	120
Wheat, barley, oats	1 week	1 week	-
Chickpeas	-	12 weeks	-
Lucerne	36 weeks	36 weeks	36 weeks
Cotton	2 weeks	4 weeks	8 weeks
Sorghum, maize	1 week	2 weeks	2 weeks
Sunflower	5 weeks	8 weeks	24 weeks
Soybean	1 week	1 week	24 weeks

- Where dry conditions have occurred with less than average rainfall from the time of application to planting of the subsequent crop then:

Field bioassay – plant a small area of susceptible crop four to six weeks before desired planting date and take note of any symptoms of injury. If any herbicide symptoms observed, do not plant that susceptible crop this season.

Pot bioassay – where not practical to do field bioassay, plant a small number of seeds of the susceptible crop into pots containing soil from the treated field. Do this four to six weeks before desired planting date. If any herbicide symptoms observed, do not plant that susceptible crop this season.

Stubble- ensure that harvesters effectively spread crop straw and do not leave a heavy “header trail” after harvest. Burn (if legal in the area) or if not possible bale and remove stubble.

- For plantback periods of > 4 weeks, 100mm rain must have fallen between application of Avilive 750SG and planting susceptible crop.

**PROTECTION OF LIVESTOCK**

Do not graze or cut treated crops for stock food except as specified under WITHHOLDING PERIODS.

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

Avilive 750SG has low toxicity to fish, birds, honey bees, livestock, earthworms and aquatic organisms. Do not contaminate streams, rivers or watercourses with chemical or used containers.