

Job Bag #: 4400 • Grow Choice Clock 300 DFU (Booklet) • Ink: Black • Finished Size: 93mm x 128mm

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

CLOCK™ 300

HERBICIDE

ACTIVE CONSTITUENT: 300 g/L CLOPYRALID present as the
Triisopropanolamine salt

GROUP I HERBICIDE

For the control of a wide range of Broadleaf weeds in wheat, barley, triticale, oats, pastures, canola, fallow land, forests and industrial situations as specified in the directions for use table.

THIS LEAFLET IS PART OF THE LABEL

APVMA APPROVAL NO: 56239/0704



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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.

Restraints:

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.

DO NOT sow susceptible crops (see PROTECTION OF CROPS) for nine months following any application up to 300mL/ha or for twelve months following an application in excess of 300mL/ha and up to 500mL/ha. Field peas should not be sown the season following an application of 500mL/ha. Where rates in excess of 500mL/ha have been used, susceptible crops including field peas, should not be sown for at least two years.

DO NOT spray if rain is likely within 3 hours.

Crop	Crop Stage	Weed	Weed Stage	Rate mL/ha	State	Critical Comments
Barley Oats Triticale Wheat	Pre-sowing Post-sowing pre-emergence through to 3 leaf	Capeweed	Up to 8 leaf and maximum 10cm diameter	150 plus knockdown herbicide	WA only	Pre-sowings: This rate should only be used in tank mixtures with formulations of paraquat/diquat or glyphosate. Post-sowing pre-emergent to 3 leaf: This rate should only be used in tank mixture with diuron for control of transplants.
	Early post-emergence (2 leaf to joining)		Cotyledons to 6 leaf and maximum 5cm diameter	150		Early post-emergent: Weeds should be growing actively, and not larger than 5 cm diameter.
	4 to 5 leaf onwards	Capeweed Soldier thistle Vollweiser chickpeas, lentils and safflower	Up to 10cm diameter (4 to 8 leaf) Up to 6 leaf	300 250	NSW, Vic, SA, Tas and WA only	Weeds should be young and actively growing. Weeds will become stunted and not be competitive soon after application although final results may not show for some weeks.

Crop	Crop Stage	Weed	Weed Stage	Rate mL/ha	State	Critical Comments		
Barley Oats Triticale Wheat	4 to 5 leaf onwards	Volunteer faba beans and lupins	Up to 4 leaf	250	NSW, Vic, SA, Tas and WA only	Faba beans and lupins will only be suppressed.		
		Volunteer field peas	Maximum 10cm high or 6 nodes	150 75 plus 700mL/ha MCPA LVE		Use 75 mL/ha rate only in combination with MCPALVE.		
		Volunteer medics and seeding lucerne	Up to 8 leaf	150		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.		
		Volunteer sub-clover	Up to 6 leaf					
		Volunteer vetch	Runners up to 10cm maximum 16 leaf	100 75 plus 700mL/ha MCPA LVE				
		Prickly lettuce	4 to 6 leaf and maximum 8cm diameter	150 plus 700mL/ha MCPA LVE	NSW, Vic, SA, Tas and WA only	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.		
		Thistles including: Nodding Saffron Scotch Stender Spear Grasses Variegated	Rosettes up to 10cm maximum diameter	50 plus 1.0L/ha MCPA amine (500g/L) or 50 plus 700mL/ha MCPA LVE	NSW, Vic, SA, Tas, WA and Qld only	Use 50 mL/ha rate only in combination with MCPALVE.		
		Skeleton weed	5 to 15cm rosettes	500 plus 700mL/ha MCPA amine (500g/L)	NSW, Vic and SA only	Weeds should be a minimum 5cm in diameter, and growing actively. This rate will give control until harvest. Substantially reduce weed numbers the following season.		
		Canola	2 to 8 leaf	Capsweed Saffron thistle Skeleton weed Soldier thistle	Up to 10cm diameter (4 to 8 leaf)	300	NSW, Vic, SA, Tas, WA and Qld only	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.

Crop	Crop Stage	Weed	Weed Stage	Rate mL/ha	State	Critical Comments
Canola	2 to 8 leaf	Volunteer chickpeas, lentils and safflower	Up to 6 leaf	250	NSW, Vic, SA, Tas, WA and Qld only	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. Faba beans and lupins will only be suppressed. For the control of annual grasses, Cloack™ 300 Herbicide may be tank mixed with Verdickt™ Herbicide.
		Volunteer faba beans and lupins	Up to 4 leaf	250		
		Volunteer field peas	Maximum 10cm high or 6 nodes	150		
		Volunteer medics and seeding lucerne	Up to 8 leaf	150		
		Volunteer sub-clover	Up to 6 leaf	150		
		Volunteer vetch	Runners up to 10cm maximum 16 leaf	100		

Crop	Crop Stage	Weed	Weed Stage	Rate mL/ha	State	Critical Comments
Pastures and fallow land	Post-emergence	Hardhead thistle (Creeping knapweed, Russian knapweed)	Actively growing plants	Hand gun: 50mL/100L of water Boom spray: 2 or 4L/ha	Vic only	NOTE: DO NOT USE ON LUCERNE. CLOWERS AND MEDICS 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 200 to 250L of water/m ² .
		Thistles including: Nodding Variegated Scotch Spear Slender Saffron	Rosette stage prior to stem elongation. Treat rosette stage prior to stem elongation.	Hand gun: 50 or 70mL/ha plus 1 to 1.5L MCPA amine (500g/L)/ha Drench gun: 50mL/1L of water	NSW, Vic, Tas, SA and Qld only	Old-SPRAY MCPA: Use the higher rates of Clock™ 300 Herbicide plus MCPA. Spraying may be done at any time during active 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. 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 for seven days to allow thistles to redden prior to treatment. POST-TREATMENT MANAGEMENT: Response of thistles to Clock™ 300 Herbicide 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. CLOVER DAMAGE: The Clock™ 300 Herbicide plus MCPA mixture can be very damaging to subterranean clover. The lower rate is no more damaging than label rates of 2,4-D or MCPA. The higher rate of the Clock™ 300 Herbicide plus MCPA mixture will reduce the clover component of the pasture for about two months. Clover recovery will be quicker during periods of active growth. HAND GUN (Spray): Treat from rosette stage to early flowering. The spray must be applied to the rosette crown. DRENCH GUN: Apply 10mL to rosette crown. To multicrown plants, apply 10mL to each crown.
				Hand gun: 250mL/100L of water		

Crop	Crop Stage	Weed	Weed Stage	Rate mL/ha	State	Critical Comments
Pastures and fallow land	Post-emergence	Nodding thistle	Resists up to 20cm diameter	100	NSW only	Apply the spray from September to October. Apply by boom spray only. DO NOT apply to thistles over 20cm in diameter. When thistles are over 20cm in diameter use Cloc [™] 300 Herbicide plus MCPA (related to above). Thistles that are taller than 20cm will be no greater than damage with MCPA alone and less than damage to sub-clover may be greater than with MCPA or 2,4-D alone. DO NOT use for spot treatment. Addition of a wetting agent at label rates is recommended. Retreatment of regrowth in the year following treatment is not required. NOTE: Clovers and medics will be eliminated for at least one year.
Pasture, Forests, Rights-of-Way, Industrial Situations	Post-emergence	Californian thistle	From early buds to flowering (October to February)	Hand gun: 250mL/100L of water Boom: 2L/ha	Vic and Tas only	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.
Pasture, Forests, Rights-of-Way, Industrial Situations	Post-emergence	Groundsel bush	Young seedlings to mature plants	Hand gun: 330 or 500mL/100L of water	Old and NSW only	
Pasture, Forests, Rights-of-Way, Industrial Situations	Post-emergence	Silver wattle	Active growth spring to summer	Hand gun: 50 or 100L of water Boom and aerial spray: 500L/ha (weeds 30cm to 2m)	NSW, Vic and Tas only	For effective control apply when bushes are growing actively. HAND GUN: Means high volume NOT low volume knapsack. Spray to give full coverage of leaves and stems. Add organosilicone surfactant at 200mL/100L for optimum results. See General Instructions for hand gun spraying. BOOM AND AERIAL SPRAY: 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 Vivapron. Mix Cloc [™] 300 Herbicide and organosilicone surfactant with the water. Clovers and other legumes will be eliminated for at least one year.
Forests		Cape Ivy	Any growth stage	Hand gun: 3.3L/ha	Vic and Tas only	Apply by hand held weed wiper or CDA at dilutions with water at 1:3. Application may be made at any time of the year provided foliage is dry at the time. Avoid spraying non-target plants.

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER CONTRARY TO THIS LABEL UNLESS AUTHORISED BY APPROPRIATE LEGISLATION
WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED

WITHHOLDING PERIODS

CEREALS, CANOLA, FALLOW LAND, PASTURE:

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION.

FORESTS, EXCEPT *PINUS RADIATA* PLANTATIONS:

DO NOT GRAZE FOR 7 DAYS AFTER APPLICATION.

***PINUS RADIATA* PLANTATIONS:**

DO NOT GRAZE FOR 14 DAYS AFTER APPLICATION.

GENERAL INSTRUCTIONS

MIXING:

- Half fill the tank with water and add the required amount of Clock™ 300 Herbicide and complete filling. Agitate continuously to ensure thorough mixing before and during application. Only mix sufficient chemical for each day's work.
- Tank Mixtures: Wettable powder or dry flowable formulations should be added to the spray tank first, followed by suspension concentrates (flowables), aqueous concentrates (Clock™ 300 Herbicide), emulsifiable concentrate formulations (e.g. Verdict or MCPA LVE).

COMPATIBILITY:

- Clock™ 300 Herbicide is compatible with the following:

BROADLEAF HERBICIDES: Starane*, Metsun 600, bromoxynil, Chlorsun 750, diuron, glyphosate, MCPA amine, MCPA LVE, paraquat, Spray-Seed®, terbutryn, 2,4-D amine.

GRASS HERBICIDES IN CEREAL CROPS: Ryedown, Grasp +, Puma + (+ Grasp and Puma for wild oat control only).

GRASS HERBICIDES ON BROADLEAF CROPS: Verdict* Herbicide.

APPLICATION

BOOM SPRAYING CROP and PASTURES:

- Apply Clock™ 300 Herbicide in sufficient water to obtain good coverage. It should be applied by an accurately calibrated ground rig or aircraft, delivering 200 to 300 micron droplets and not less than 50L/ha water volume for boom sprayers or not less than 20L/ha for aerial applications.
- Hardhead thistle – Use a spray volume of 200 to 250L/ha of water. Silver wattle – Use a spray volume of 150 to 200L/ha of water by ground boomspray and a minimum spray volume of 50L/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 two metre high silver wattle should be 30 to 40 litres of spray per 100m² (10m x 10m) of infestation. For larger areas an equivalent would be 3000 to 4000 litres per infested hectare.

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 water courses.

PARTIAL CLEANING (before spraying other labelled or tolerant crops):

- After using Clock™ 300 Herbicide, 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 susceptible crops):

- After using Clock™ 300 Herbicide, 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 a liquid alkali detergent (e.g. Surf®, Omo®, Drive®) at 500mL/100L water and circulate throughout the system for a 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.

RESISTANT WEEDS WARNING

GROUP I HERBICIDE

Clock™ 300 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 is a Group I Herbicide.

Some naturally occurring weed biotypes resistant to the product and other Group I 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 I Herbicides.

Since occurrence of resistant weeds is difficult to detect prior to use, Grow Choice Pty 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 Grow Choice representative.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

- Susceptible crops include chickpeas, cotton, faba beans, field peas, fruit trees, lentils, lupins, lucerne, medics, ornamentals, potatoes, safflower, sub-clover, tomatoes, vegetables, vines, wattles and white clover. **DO NOT** allow spray drift onto susceptible crops.
- **Plant back periods:** Residues in the straw of treated crops can affect subsequent susceptible crops. Susceptible crops listed above should not be sown for: nine months following any application up to 300mL/ha; twelve months following an application in excess of 300mL/ha and up to 500mL/ha.

NOTE: Field peas are particularly susceptible and should not be sown the season following an application of 500mL/ha. Where rates in excess of 500mL/ha have been used, susceptible crops, including field peas, should not be sown for at least two years.

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

- Clock™ 300 Herbicide has low toxicity to fish, birds, honey bees, livestock, earthworms and aquatic organisms.
- **DO NOT** contaminate streams, rivers or waterways with chemical or used containers.
- **DO NOT** apply Clock™ 300 Herbicide to crops or pastures, which are to be used for the production of compost or mulches for use with susceptible crops or plants. The use of straw, hay or other plant material treated with Clock™ 300 Herbicide for composting or mulching susceptible crops may damage these crops.

STORAGE AND DISPOSAL

- Store in the closed, original container in a cool, well-ventilated area. **DO NOT** store for prolonged periods in direct sunlight.
- **DO NOT** store near feedstuffs, fertilisers or seed.
- Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

SMALL SPILL MANAGEMENT

Wear protective equipment (See SAFETY DIRECTIONS). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. Sweep up material for disposal when absorption is completed and contain in a refuse vessel for disposal. (See STORAGE AND DISPOSAL section). If necessary, wash the spill area with an alkali detergent and water and absorb as above, the wash liquid for disposal.

SAFETY DIRECTIONS

- May irritate the eyes and skin. Avoid contact with eyes and skin.
- **DO NOT** inhale the spray mist.
- When preparing the spray, wear elbow-length PVC gloves and face shield.
- 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: 131 126)

MATERIAL SAFETY DATA SHEET

Additional information is listed in the Material Safety Data Sheet for Clock™ 300 Herbicide which is available from the supplier.

NOTICE TO BUYER

Grow Choice Pty Ltd will not be held liable for any loss, injury or damage, indirect or consequential, arising from the sale, supply, use or application of this product. The product is not to be used for any purpose or in any way contrary to label instructions.

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