



Product Name: Apparent Fireball 400 Herbicide
APVMA Approval No: 81917/117275

Label Name:	Apparent Fireball 400 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:	Label A:(81917/117275a) ACTIVE CONSTITUENT: 400 g/L FLUROXYPYR AS THE METHYL HEPTYL ESTER SOLVENTS: 316 g/L HYDROCARBON LIQUID 100 g/L N-METHYL-2-PYRROLIDONE Label B:(81917/117275b) ACTIVE CONSTITUENT: 400 g/L FLUROXYPYR AS THE METHYL HEPTYL ESTER SOLVENTS: 300 g/L HYDROCARBON LIQUID 100 g/L N-METHYL-2-PYRROLIDONE
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Mode of Action:	GROUP I HERBICIDE
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Statement of Claims:	For the control of a wide range of Broadleaf weeds in Fallow, Lucerne. Maize, Millets, Pastures, Poppies, Sorghum, Sugar Cane, Sweet Corn and Winter Cereals. Also for the control of Woody weeds in Agricultural Non-Crop areas, Commercial and Industrial areas, Forests, Pastures and Rights-of-way, as specified in the Directions for Use.
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Net Contents:	1L-200L
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Restraints:	DO NOT apply to plants which may be stressed (not actively growing) due to prolonged periods of extreme cold, moisture stress (water-logged or drought affected), poor nutrition, presence of disease, or previous herbicide treatment as reduced levels of control may result. Thorough coverage of both foliage and stems, to the point of runoff, is essential for high volume applications (see GENERAL INSTRUCTIONS; application methods WOODY WEEDS SITUATIONS section). DO NOT spray if rain is likely to occur within 1 hour.
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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>WITHHOLDING PERIOD: CROPS AND PASTURES: DO NOT GRAZE FAILED CROPS AND TREATED PASTURES OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION. POPPIES: DO NOT SPRAY POPPIES LATER THAN 10 WEEKS BEFORE HARVEST. OTHER CROPS: NOT REQUIRED WHEN USED AS DIRECTED.</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>RESISTANT WEEDS WARNING GROUP I HERBICIDE Apparent Fireball 400 Herbicide is a member of the pyridine group of herbicides. Apparent Fireball 400 Herbicide has the disruptors 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 individual can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by this product or other Group I herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Apparent Pty Ltd. accepts no liability for any loss that may result from the failure of this product to control resistant weeds. Strategies to minimize the risk of herbicide resistance are available. Contact your farm chemical supplier, consultant, local Department of Agriculture, or Apparent representative.</p>
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Precautions:	
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Protections:	<p>PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS Susceptible crops include, but are not limited to clovers, cotton, fruit, hops, lupins, ornamentals, peas, pine trees, potatoes, navy beans, safflower, shade trees, soybeans, sunflower, tobacco, tomatoes, vegetables and vines. Apparent Fireball 400 Herbicide can be damaging to susceptible crops during both growing and dormant periods. Grasses are normally unaffected by Apparent Fireball 400 Herbicide and establish quickly after treatment. Transitory damage can occur on some species particularly those that spread by stolons such as couch grass (<i>Cynodon dactylon</i>), Kikuyu grass and carpet grass (<i>Axonopus</i> sp.) DO NOT allow spray to drift onto susceptible crops, shade trees and <i>Pinus</i> spp. DO NOT use under weather conditions or from spraying equipment which could cause spray to drift onto nearby susceptible plants.</p> <p>PROTECTION OF LIVESTOCK DO NOT graze stock or cut treated crops or plants for food except as specified under withholding periods. Poisonous plants may become more palatable after spraying therefore stock should be kept out of the area until the plants have died down.</p>
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DO NOT allow stock to re-enter paddocks containing treated poisonous plants, until the plants have died down.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or waterways with the chemical or used containers. Alongside waterways, treat only noxious weeds and poisonous plants.

Storage and Disposal:

STORAGE AND DISPOSAL

Store in closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight. Do not store near food, feedstuffs, fertilisers, seeds, insecticides, fungicides or other pesticides.

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.

Refillable containers:

Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

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 the wash liquid for disposal.

Safety Directions:

SAFETY DIRECTIONS

Avoid contact with eyes and skin. When opening the container, preparing the spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves, a face shield or goggles. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

First Aid Instructions:

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia: 13 11 26. If swallowed, do NOT induce vomiting. Give a glass of water. If in eyes wash it out immediately with water.

First Aid Warnings:

DIRECTIONS FOR USE

TABLE 1: Woody Weeds in Agricultural Non-Crop Areas and Rights-of-Way, Commercial and Industrial Areas, Forests and Pastures.

• Legumes present at the time of spraying will be severely damaged.

HIGH VOLUME APPLICATION: Dilute product with water. See General Instructions – Application Method for application details				
Weeds Controlled	Weed Growth Stage	State	Rate mL/100 L Water	Critical Comments
Bathurst burr, Noogoora burr	Seedlings and young plants up to 40 cm high	NSW, NT, Qld, WA only	38	Add Uptake* Spraying Oil (see General Instructions; Oils and surfactants).
Black bindweed (Climbing buckwheat)	Seedlings and young plants before flowering	NSW, Qld only	150	
<i>Mimosa pigra</i>	Apply from mid to late summer	NT, WA only		
Common sensitive plant	Seedlings and young plants up to flowering	Qld, WA only	250	
Bellyache bush		Qld, NSW, WA only		
Blackberry nightshade, Bokhara clover		NSW, Qld only		
Caltrop (yellow vine) (<i>Tribulus terrestris</i>) (<i>T. micrococcus</i>)		Seedlings and young plants up to 30 cm diameter		
Cobblers pegs	Up to 15 cm high			
Cockspur thorn	Up to 3 m high			
Creeping lantana	At flowering			
Crofton weed, Mistflower	Seedlings and young plants up to flowering			
Docks (<i>Rumex</i> spp.)	Seedlings and rosettes up to 30 cm high			

TABLE 1: Woody Weeds in Agricultural Non-Crop Areas and Rights-of-Way, Commercial and Industrial Areas, Forests and Pastures.

HIGH VOLUME APPLICATION: Dilute product with water. See General Instructions – Application Method for application details				
Weeds Controlled	Weed Growth Stage	State	Rate mL/100 L water	Critical Comments
Hexham scent	Seedlings and young plants up to flowering	NSW, Qld only	250	Boom spray: Apparent Fireball 400 Herbicide at 0.3 L/ha + 0.4 L/ha of 2,4- D amine (625 g/L) Apply to actively growing plants from October to April. Some regrowth may occur particularly when treating old woody plants with sparse canopies.
Honey locust	Seedlings and young plants up to 2 m high			
Small flowered mallow (Marshmallow) (<i>Malva parviflora</i>)	Seedlings and young plants up to flowering			
Yellowflower, Devil's claw	Seedlings and young plants up to flowering		500	
Lantana	Seedlings and regrowth 0.5 to 1.2 m high Plants and regrowth 1.2 to 2 m high			
Blue heliotrope	Flowering			
Limebush	Infestations up to 1.5 m high only			
Madeira vine	Apply at time of active growth	250		
Milkweed (<i>Euphorbia heterophylla</i>)	3 leaf to flowering	Qld only	500	Repeat applications will be necessary to control subsequent germinations.
Common sowthistle	Seedlings and young plants up to bolting	NSW, Qld only	250	Add a surfactant (see GENERAL INSTRUCTIONS ; Oils and surfactants).
Mother-of-millions (<i>Kalanchoe</i> spp.)	Seedling and young plants before flowering		300	
Prickly acacia	Seedling and young plants up to 2 m high	Qld only	375	Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants). Consult Tropical Weeds Research Centre, Charters Towers, for specific advice on application.

TABLE 1: Woody Weeds in Agricultural Non-Crop Areas and Rights-of-Way, Commercial and Industrial Areas, Forests and Pastures

HIGH VOLUME APPLICATION: Dilute product with water. See General Instructions – Application Method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE mL/100 L WATER	CRITICAL COMMENTS
<i>Sida</i> spp.	Seedling and young plants up to flowering	NSW, NT, Qld, WA	500	
Broadleaf Pepper tree (<i>Schinus terebinthifolius</i>)	Mature leaves, fruiting	Qld only	250	Winter application only. Contact Alan Fletcher Research Station for more information.
Flannel weed (<i>Sida cordifolia</i>)				
Snakeweed (Dark and light blue)	Seedling and young plants before flowering		375	Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS: Oils and surfactants).
Stinking Passion Flower	Established plants and regrowth	Qld, NT, WA	225	Use 70 mL/15 L for a knapsack
Wandering jew (<i>Tradescantia albiflora</i>)	Young plants up to and including flowering	All States	750	Some re-growth will usually occur and will require treatment.
Wattles (including <i>Acacia aulacocarpa</i> <i>A. decora</i> <i>A. harpophylla</i> <i>A. leiocalyx</i> <i>A. salicina</i>)	Seedling plants or regrowth 0.5 to 1.2 m high	NSW, Qld only	250	Apply to actively growing plants when soil moisture is plentiful. Some regrowth may occur particularly when treating old woody plants with sparse canopies and under dry conditions.
	Plants or regrowth 1.2 m to 2.0 m high only		500	

TABLE 1: Woody Weeds in Agricultural Non-Crop Areas and Rights-of-Way, Commercial and Industrial Areas, Forests and Pastures
(cont.)

BASAL BARK AND CUT STUMP APPLICATION: Dilute product with diesel. See General Instructions – Application Method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE L/100 L DIESEL	CRITICAL COMMENTS
Celtis (<i>Celtis sinensis</i>)	Basal Bark only: Young plants up to 2 m high and 20 cm basal diameter	Qld only	1.8	Treat stems from ground level to where multi-stemmed trunks branch. With basal bark, treat circumference of stem to a height of 45 cm from the ground. Contact the Land Protection Branch, Department of Lands, Qld, for further information on Chinee Apple.
Chinee apple	Up to 15 cm basal diameter		1.5	
Cockspur thorn	Basal Bark only: Up to 5 cm basal diameter		1	
Mimosa bush (<i>Acacia farnesiana</i>)	Up to 5 cm basal diameter	Qld, WA only	1.5	
Prickly acacia	Up to 10 cm basal diameter	Qld only	750 mL	
Honey locust	Plants up to 10 cm basal diameter	Qld, NSW only	750 mL	With basal bark, treat circumference of stem to a height of 45 cm from the ground. For cut stump application use a rate of 5 L/100 L diesel for all plant sizes. Contact the Land Protection Branch, Department of Lands, Qld, for further information on Honey Locust.
	Plants 10 to 20 cm basal diameter		1.5	
	Plants >20 cm basal diameter		2.5	
Sisal hemp (<i>Agave</i> spp.)	All growth stages	Qld only	1.5	Treat as an overall spray. Contact The Land Protection Branch, Department of Lands, Qld for advice to control large infestations.
			5 mL undiluted product per plant	Lever out centre of plant with crowbar and immediately treat the exposed cut area.

TABLE 1: Woody Weeds in Agricultural Non-Crop Areas and Rights-of-Way, Commercial and Industrial Areas, Forests and Pastures.
(continued)

BROADCAST AND AERIAL APPLICATION: Dilute product with water. See General Instructions – Application Method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE L/ha	CRITICAL COMMENTS
<i>Mimosa pigra</i>	Actively growing plants	NT, WA only	1.5	Aerial application: Add Uptake Spraying Oil at the rate of 1 L/100 L spray mix. Apply to actively growing plants from mid to late summer. Contact the Department of Primary Industries and Fisheries, NT for further information.

LOW VOLUME, HIGH CONCENTRATE APPLICATION: Use a drench gun or gas-powered gun. See General Instructions – Application Method for application details				
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE	RATE mL/10 L WATER	CRITICAL COMMENTS
Limebush	Isolated bushes up to 1.2 m high only	NSW, Qld only	500 mL	Apply a 50 mL dose per 5 m ² of bush surface area.
Tree violet (<i>Hymenanthera dentata</i>)	Apply from late flowering to green fruit up to 1.2 m high	NSW only		Apply a 50 mL dose per cubic metre of bush.

TABLE 2: Established Grass Pastures

Weeds Controlled	Weed Growth Stage	State	Rate /ha	Critical Comments
Blue billygoat weed, Common sensitive plant, Giant sensitive plant, Spinyhead sida	Apply before flowering	Qld, WA only	750 mL	Add Uptake Spraying Oil at 1 L/ha
St John's wort	Apply from bud to full bloom (usually late Nov to early Jan)	ACT, NSW and Vic only	1.5 L	Some regrowth will occur. Treat regrowth the following season for best results. Use at least 200 L water/ha.
Silverleaf nightshade	From onset of flowering to early berry-set (usually spring to mid- summer)	NSW only	375 mL or 190 mL + 1.2 – 1.6 L 2,4-D amine (625 g/L)	Add Uptake Spraying Oil at 1 L/ha. To ensure maximum effect, delay application until the majority of shoots have emerged. Follow-up treatment of regrowth is critical for best control.

TABLE 3: Sorghum, Maize, Millets and Sweet Corn (NSW and Qld only)

Crop	Crop Growth Stage	Weeds Controlled	Weed Growth Stage	Rate /ha	Critical Comments
Sorghum	Apply when secondary roots are present, from 4 fully expanded leaves (15 cm tall) up to boot (also see CRITICAL COMMENTS)	Annual ground Cherry, Wild gooseberry (<i>Physalis</i> spp.)	2 to 8 leaf Up to 15 cm tall	250 mL	Sorghum: From 8 leaf to boot stage, use dropper nozzles to prevent herbicide coming in contact with the crop's leaves and the growing point (meristem).
		Apple-of-Peru	Seedling plants Up to 15 cm tall	375 mL	
		Bathurst burr, Noogoora burr	2 to 8 leaf Up to 20 cm tall	250 mL	
Maize and Sweet corn	Apply when secondary roots are present, from 3 fully expanded leaves (10 cm tall) up to just before tasselling (see CRITICAL COMMENTS)		20 to 50 cm tall	375 mL	Maize and Sweet Corn: From 6 leaf to just before tasselling, use dropper nozzles to prevent the herbicides coming in contact with the crop's leaves and the growing point (meristem).
		Pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter	250 mL	
			10 to 30 cm diameter	375 mL	
Millets	Spray when secondary roots have developed, usually early to mid-tillering, and not later than before heads start to form at the base of tillers. (See CRITICAL COMMENTS)	Sesbania pea	2 to 6 leaf Up to 10 cm tall	750 mL	Millets: DO NOT use mixes with atrazine. (¹) This treatment may be slightly damaging to the crop. To minimise crop damage apply using dropper nozzles at all crop stages .
		Silverleaf nightshade (NSW only) (¹)	Full flower to early berry	375 mL + Uptake at 300 mL/100 L	
		Starburr (<i>Acanthospermum hispidum</i>) (Qld only)	Up to 12 leaf and before flowering	750 mL or 375 mL + 1.6 L atrazine (600 g/L)	
		Thornapples (<i>Datura</i> spp.)	2 to 8 leaf Up to 15 cm tall.	375 mL	
		Volunteer Sunflower	2 to 5 leaf Up to 20 cm tall.	500 mL	

TABLE 3: Sorghum, Maize, Millets and Sweet Corn (NSW and Qld only)

Crop	Crop Growth Stage	Weeds Controlled	Weed Growth Stage	Rate /ha	Critical Comments
Sorghum, Maize & Sweet corn	Spray when secondary roots have developed, usually early to mid-tillering and not later than before heads start to form at the base of the tillers (See CRITICAL COMMENTS)	<i>Amaranthus</i> spp. Including: Boggabri weed, Dwarf amaranth, Green amaranth, Redshank, Anoda weed, Bladder ketmia, Black pigweed (<i>Trianthema portulacastrum</i>), Caltrope (yellow vine), Including <i>Tribulus terrestris</i> , <i>T. microccus</i> and <i>T. maximus</i> , Cowvine (peach vine) (<i>Ipomoea lonchophylla</i>), Hairy wandering jew (<i>Commelina benghalensis</i>), Mintweed	Seedling plants up to 15 cm tall or rosettes up to 15 cm diameter	250 mL + 1.2 L of atrazine flowable (600 or 675 g/L) or 375 mL+ 1.6 L of atrazine flowable (600 g/L or 1.1 kg of Atrazine 900 g/kg granules)	<p>Use the low rate (250 mL + 1.2 L) when weeds are small (5 - 7 cm tall/diameter).</p> <p>Use the high rate (375 mL + 1.6 L) when the weeds are larger (7 – 15 cm tall/diameter).</p> <p>Apparent Fireball 400 Herbicide is generally more compatible with Liquid atrazine products (see GENERAL INSTRUCTIONS; compatibility section).</p> <p>Add a surfactant (See GENERAL INSTRUCTIONS; Oils and surfactants).</p> <p>DO NOT add an oil to mixtures of Apparent Fireball 400 Herbicide and atrazine.</p>
		<i>Euphorbia davidii</i>	Cotyledons to 4 nodes up to 15 cm	500 mL + 1.6 L atrazine flowable (600 g/L or 1.1 kg of Atrazine 900 g/kg granules)	
		Volunteer peanuts	Up to 15 cm diameter	500 mL + 3.7 L atrazine flowable (600 g/L or 2.5 kg of Atrazine 900 g/kg granules)	

SWEET CORN: TASMANIA ONLY

Crop	Crop Growth Stage	Weeds Controlled	Weed Growth Stage	Rate /ha	Critical Comments
Sweet Corn only	3 to 5 leaf	Blackberry nightshade, Volunteer potatoes	3 to 5 leaf	500 mL	

TABLE 4: Winter Cereals (Wheat, Barley, Oats and Triticale)

Crop Growth Stage	Weeds Controlled	Weed Growth Stage	State	Rate /ha	Critical Comments	
Apply from 3 leaf to flag (Zadoks 13 to 39)	Bedstraw (<i>Galium tricornutum</i>)	1 to 3 whorl	Vic, SA, WA	500 mL	⁽¹⁾ Add either Uptake or a surfactant (see GENERAL INSTRUCTIONS: Oils and surfactants).	
	Cleavers (<i>Galium aparine</i>)		NSW, Vic only			
	Black bindweed (Climbing buckwheat)	2 to 4 leaf	NSW, Qld only	NSW, SA, Qld, WA	250 mL ⁽¹⁾	Useful suppression only. Mixtures: Mixing partners with Apparent Fireball 400 Herbicide may reduce crop selectivity. Apply at crop growth stages according to the mixing partner's recommendation.
		2 to 6 leaf			375 mL or 250 mL + 5 g Metsulfuron methyl ⁽¹⁾	
	Common sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf			500 mL	
	Deadnettle	2 to 6 leaf			750 mL or 250 mL + 5 g Metsulfuron methyl ⁽¹⁾	
	Spiny emex (Doublegee, Three cornered jack)	2 to 4 leaf				
	Prickly lettuce	2 to 5 leaf	NSW, Qld, Tas, Vic, WA	500 mL		
	Volunteer lupins	2 to 8 leaf	NSW, Vic, WA only	750 mL		
	Volunteer potato	10 to 15 cm tall	WA and Tas only			
	Wireweed	2 to 3 leaf	NSW, Qld, SA, Tas, Vic, WA			Plants 15 to 30 cm tall will only be suppressed.
			NSW and Qld only	250 mL + 5 g Metsulfuron methyl ⁽¹⁾		
Bittercress (<i>Coronopus didymus</i>), Mustards, Shepherd's purse, Turnip weed, Wild radish, Wild turnip	Up to 8 leaf and up to 15 cm diameter	Qld, NSW, Vic, SA, Tas, WA	250 mL to 1.5 L + Metsulfuron methyl ⁽¹⁾ or Eclipse ⁽¹⁾ or MCPA LVE or MCPA amine	The Apparent Fireball 400 Herbicide rate depends on what other weeds are present as listed above. See Mixtures: comment above. Metsulfuron methyl (600 g/kg) @ 5 g/ha (this mix does not control wild radish). Eclipse @ 5 - 7 g/ha (use the 5 g rate on turnip weed only). MCPA LVE (500 g/L) @ 700 mL/ha. MCPA Amine (500 g/L) @ 1.0 L/ha.		

TABLE 5: Summer Fallow

Weeds Controlled	Weed Growth Stage	State	Rate /ha	Critical Comments	
Annual ground cherry, Wild gooseberry (<i>Physalis</i> spp.)	2 to 8 leaf, up to 15 cm tall	NSW, Qld only	375 mL ⁽²⁾	<p>⁽¹⁾ Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS; Oils and surfactants).</p> <p>When mixing with Glyphosate 450 to control both grass and broadleaf weeds, refer to the Glyphosate 450 label for use rates and adjuvants recommended for the grasses (see GENERAL INSTRUCTIONS; compatibility section).</p> <p>⁽²⁾ Delay treatment until the maximum number of shoots have emerged, but before the onset of fruiting (late summer). DO NOT treat plants showing symptoms from previous treatment. Use the high rate when longer term weed control (6 - 10 months) is required and delay planting crops during this period. The low rate will require follow-up treatments.</p>	
Bathurst burr Noogoora burr	2 to 8 leaf, up to 20 cm tall	NSW, Qld, Vic, WA only			
Bellvine	Pre-flowering	NSW, Qld only	250 mL + 1.2 L Glyphosate 450		
Bladder ketmia	4 to 8 leaf, up to 10 cm tall				
Cowvine (Peach vine) (<i>Ipomoea lonchophylla</i>)	2 to 10 leaf up to 10 cm diameter				
Caltrope (yellow vine), including <i>Tribulus terrestris</i> , <i>T. maximus</i> and <i>T. microccus</i>	Up to 15 cm diameter				
Pigweed (<i>Portulaca oleracea</i>)	Up to 10 cm diameter				375 mL ⁽¹⁾
	Up to 60 cm diameter				375 mL + 1.0 L Glyphosate 450
<i>Polymeria pusilla</i>	2 to 10 leaf up to 20 cm diameter				500 mL ⁽¹⁾ or 250 mL + 1.2 L Glyphosate 450
Rhynchosia	Seedlings to early flowering				500 mL ⁽¹⁾ or 190 mL + 800 mL Glyphosate 450
Smallflower mallow or Marshmallow (<i>Malva parviflora</i>)	Up to 8 leaf up to 20 cm diameter		500 mL ⁽¹⁾		
Thornapples (<i>Datura</i> spp.)	2 to 8 leaf up to 15 cm diameter	NSW, Qld, WA only	375 mL ⁽¹⁾ or 250 mL + 1.2 L Glyphosate 450		
Sesbania pea	2 to 6 leaf up to 10 cm tall	NSW Qld only	750 mL ⁽¹⁾ or 250 mL + 1.2 L Glyphosate 450		
Perennial Ground Cherry (<i>Physalis virginiana</i>) (w)	Bud to early flowering up to 20 cm tall				750 mL or 1.5 L ⁽¹⁾

TABLE 5: Summer Fallow (continued)

Weeds Controlled	Weed Growth Stage	State	Rate /ha	Critical Comments
Silverleaf nightshade	Full flower to early berry-set (usually Dec – Feb)	NSW only	375 mL or 190 mL + 1.2 – 1.6 L 2,4-D amine (625 g/L)	Add Uptake Spraying Oil at the rate of 1 L/100 L spray mixture. To ensure maximum effect, delay application until the majority of shoots have emerged. Follow-up treatment will be required to control regrowth and is critical for optimum control. If wanting to prevent seed set, repeat applications may be needed in the same season, although this does not lead to better long term control.
Volunteer peanuts	Up to 15 cm diameter	Qld only	500 mL + 3.7 L atrazine flowable (600 g/L)	Add a surfactant (see GENERAL INSTRUCTIONS ; Oils and surfactants). Important: see GENERAL INSTRUCTIONS ; compatibility section).
Volunteer sunflowers	2 to 5 leaf up to 20 cm	NSW, Qld only	500 mL	Add Uptake Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants section).

TABLE 6: Winter Fallow

Weeds Controlled	Weed Growth Stage	State	Rate /ha	Critical Comments
Bedstraw (<i>Galium tricornutum</i>)	Up to 5 whorl	Vic, SA, WA only	500 mL ⁽¹⁾	⁽¹⁾ Add Uptake Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants section). ⁽²⁾ Add Uptake or a surfactant (see GENERAL INSTRUCTIONS ; Oils and surfactants section).
Cleavers (<i>Galium aparine</i>)		NSW, Vic only		
Black bindweed (Climbing buckwheat)	2 to 8 leaf up to 10 cm diameter	NSW, Qld only	375 mL ⁽¹⁾	When mixing with Glyphosate 450 to control both grass and broadleaf weeds, refer to the Glyphosate 450 label for use rates and adjuvants recommended for the grasses (see GENERAL INSTRUCTIONS ; Compatibility Section).
Common sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf up to 10 cm diameter		500 mL ⁽¹⁾ or 250 mL + 600 mL Glyphosate 450	
Prickly lettuce	2 to 8 leaf		750 mL ⁽¹⁾ or 250 mL ⁽²⁾ + 5 g Metsulfuron methyl (600 g/kg)	
Spiny emex (Doublegee, Three cornered jack)			750 mL ⁽¹⁾ or 250 mL ⁽²⁾ + 5 g Metsulfuron methyl (600 g/kg) or 0.5 ⁽²⁾ + 0.6 Glyphosate 450	
Wireweed	2 to 3 leaf up to 10 cm tall			

TABLE 7: Sugar Cane (Qld, NSW, NT and WA only)

Crop Stage Growth	Weeds Controlled	Weed Growth Stage	Rate /ha	Critical Comments
From early tillering to maturity	Balsum pear, Blackberry nightshade, Blue billygoat weed, Centro, Cowpea, Giant sensitive plant, Lablab bean, Noogoora burr, Phalsey bean, Pinkburr, Prickly African Cucumber, Spinyhead sida, Stinking passion flower (seedlings only)	Apply from 2 to 3 leaf until flowering	Ground: 650 mL Aerial: 750 mL	For optimal weed control, delay application until just before the “close-in” stage. Aerial application: Apply in not less than 60 L/ha water and add Uptake Spraying Oil at 1 L/100 L spray mixture. Ground application: Apply in 100 – 400 L/ha water and add Uptake Spraying Oil at 300 mL/100 L of spray mixture.
	Bellvine, Morning glory, Red or pink convolvulus, Star-of-Bethlehem		As above + 800 mL 2,4-D amine (625 g/L)	
	Stinking passion flower	Established or ratoon plants with at least 1.0 m of regrowth	High volume: 225 mL/100 L water Knapsack: 35 mL/15 L water	Thoroughly wet plants to the point of run-off.
	Milkweed (<i>Euphorbia heterophylla</i>)	Seedlings and young plants up to flowering.	1.5 L or 1.15 L + 3.3 L atrazine flowable (600 g/L)	Better control will be achieved with the atrazine mixture. Delay application until just before the cane reaches the “close-in” stage. This will improve control and minimise the number of seedlings that germinate.

TABLE 8: Lucerne (NSW only)

Crop Stage Growth	Weeds Controlled	Weed Growth Stage	Rate /ha	Critical Comments
Established crops at least eighteen months old	Annual ground cherry, Bathurst burr, Noogoora burr, Wild gooseberry	2 to 8 leaf up to 15 cm high	250 mL	To minimise crop injury and to maximise weed control, cut, slash or heavily graze the lucerne before application. Wherever possible, irrigate before application to stimulate weed growth. DO NOT treat crops growing on sandy or stony soils. DO NOT treat crops after the summer growing season (after end of March). To broaden the spectrum of weeds controlled, Apparent Fireball 400 Herbicide can be mixed with 2,4-DB Amine.
	Pigweed	Up to 10 cm diameter		

TABLE 9: Poppies (Tas only)

Crop Stage Growth	Weeds Controlled	Weed Growth Stage	Rate /ha	Critical Comments
4 to 6 leaf	Cleavers. Fumitory	2 to 6 leaf	500 mL	
	Shepherd's purse, Wireweed		500 mL + 5 L Asulox	
8 to 10 leaf	Common sowthistle, Prickly lettuce	2 to 5 leaf	500 mL	DO NOT apply Apparent Fireball 400 Herbicide to poppies later than the 8 to 10 leaf growth stage as a reduction of alkaloid content could occur.
	Black nightshade	Cotyledon to 4 leaf.	750 mL	
	Fumitory	6 to 10 leaf		
	Volunteer potato	From tuber initiation to flower bud.		This rate will provide season long control of volunteer potato, but will not control all daughter tubers and will only suppress potatoes over 15 cm tall.

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

MINIMUM RECROPPING PERIODS

PLANT-BACK PERIODS FOR CROPS FOLLOWING THE APPLICATION OF APPARENT FIREBALL 400 HERBICIDE FOR RATES UP TO 750 mL/ha			
RATE /Ha	190 mL	375 mL	750 mL
CROP	DAYS		
Barley	7	7	7
Wheat	7	7	7
Chickpea	7	7	7
Cotton	14	14	28
Soybean	7	7	14
Sunflower	7	7	7
Maize	7	7	7
Sorghum	7	7	7

NOTE: Before using Apparent Fireball 400 Herbicide in tank mixes with other herbicides, check the plant-back information on all product labels. The time between spraying and planting will be determined by the most residual product, i.e. the product with the longest plant-back period.

GENERAL INSTRUCTIONS

MIXING

Apparent Fireball 400 Herbicide may be mixed with water or diesel.

Mix only sufficient chemical for each day's use and avoid storing.

Mixing in Water: Half fill the spray tank with water and add the required quantity of Apparent Fireball 400 Herbicide and complete filling. Agitate continuously to ensure thorough mixing before and during application.

Mixing in Diesel: Half fill the tank with diesel and add the required quantity of Apparent Fireball 400 Herbicide. Add the remainder of the diesel and agitate or shake to mix contents.

Tank mixtures: Wettable powder or dry flowable formulations (e.g. water dispersible granules) should be added to the spray tank first, followed by suspension concentrates (flowables), water soluble salts and then emulsifiable concentrate formulations (Apparent Fireball 400 Herbicide). Add spraying oils and surfactants (wettors) last.

OILS AND SURFACTANTS

Oils

Where specified use only Uptake Spraying Oil at the rate of 500 mL/100 L of spray mix. When using less than 100 L/ha spray volume, ensure a minimum of 250 mL/ha of Uptake is used, unless 1 L/100 L or 1 L/ha is specified.

Surfactants (wettors)

Use a 100% concentrate non-ionic surfactant such as BS1000* at 100 mL/100 L of spray mix where required.

ATRAZINE

AVOID USING HARD WATER WHEREVER POSSIBLE.

Where hard water cannot be avoided, the addition of CALGON water conditioning agent to the spray tank at 100 g/100 L water, before adding any herbicide may improve compatibility.

AGITATION IS VERY IMPORTANT WHEN MIXING APPARENT FIREBALL 400 HERBICIDE AND ATRAZINE.

Apparent Fireball 400 Herbicide plus atrazine tank mixes must be agitated vigorously and continuously during mixing and application. After mixing DO NOT allow to stand without agitation. Ensure that the time from mixing to the end of application is not more than 2 hours. If settling out occurs re-suspension is difficult, even with vigorous agitation. Agitation using only the pump's by-pass is usually inadequate, particularly with larger tanks (more than 2000 L). Additional mechanical agitation will be necessary in large tanks, computer sprayers and mixing tanks.

When additional surfactant is required, add a 100% concentrate non-ionic surfactant at 100 mL/100 L of spray mix. DO NOT use a spraying oil when tank mixing Apparent Fireball 400 Herbicide and atrazine.

TOPIK 240 EC

Always use Uptake Spraying Oil with Apparent Fireball 400 Herbicide + Topik 240 EC tank-mixes at 500 mL/100 L of spray mix with a minimum of 250 mL/ha.

DO NOT mix Apparent Fireball 400 Herbicide with Topik 240 EC if the grass weeds are not actively growing. Always use the maximum label rate of Topik 240 EC for the appropriate grass growth stage.

DO NOT use Apparent Fireball 400 Herbicide at more than 0.75 L/ha in tank mixes with Topik 240 EC.

GLYPHOSATE 450

When mixing Apparent Fireball 400 Herbicide with Glyphosate 450 to control both grass and broadleaf weeds, refer to the Glyphosate 450 label for use rates and adjuvants recommended for the grasses.

DO NOT use Glyphosate 450 at less than 1.2 L/ha in tank mixes with Apparent Fireball 400 Herbicide, when barnyard grass, buttongrass, crowsfoot grass, native millet and liverseed grass are the target species.

APPLICATION METHODS and WATER RATES

BROADCAST APPLICATION IN CROPPING, PASTURE AND FALLOW SITUATIONS

A. Ground application (Boom)

Apply Apparent Fireball 400 Herbicide with an accurately calibrated boom sprayer, in at least 50 L/ha water (100 - 400 L/ha for sugar cane).

Flat nozzles are recommended using pressures in the range 200 to 300 kPa.

Set the boom at a height to ensure a double overlap of the nozzle patterns.

B. Ground directed application (Dropper nozzles)

To minimise crop effects, dropper nozzles should be used in sorghum when the crop is beyond the 8 leaf growth stage and in maize and sweet corn when the crop is beyond the 6 leaf growth stage.

Adjust the nozzles to direct the spray into the base of the crop and away from the leaves and the growing point. See manufacturers' directions for setting up and calibration of dropper nozzles.

C. Aerial application

Apply in a minimum volume of at least 35 L/ha water (60 L/ha in sugarcane).

Use equipment calibrated to produce droplets with an average diameter (Volume Mean Diameter; VMD) of 250 – 350 microns.

DO NOT apply when the temperature is above 30°C, when there is no wind or when the wind is blowing toward susceptible crops.

DO NOT use human flaggers unless they are protected by engineering controls such as enclosed cabs.

WOODY WEED SITUATIONS

Weeds must be actively growing to attain optimal effect. Delay the treatment of regrowth following bulldozing, slashing, burning, ploughing or a previous chemical treatment until it has at least 1 metre of new, vigorous, growth.

A. High Volume Application

Hand Gun

Apply the recommended mix to obtain full coverage of leaves and stems using a number 6 – 8 tip at 700 to 1500 kPa. To obtain good coverage, a spray volume of 1500 to 4000 L/ha (15 to 40 L/100 m²) is required per infested hectare.

Ensure thorough coverage to the point of runoff.

Knapsack

Knapsack sprayers may be used on smaller infestations where penetration and coverage of the canopy is easier to achieve. Use the same use rate and spray techniques as for handgun application.

B. Low Volume, High Concentrate Application

Drench Gun or Gas-Powered Gun

Apply the recommended mixture uniformly across the foliage by applying 50 mL shots to cover 4 to 5 m² of surface area of plant. This is approximately equivalent to 20 droplets per cm² of the leaf surface. Use a marking agent as recommended by the equivalent manufacturer to check spray coverage.

C. Basal Bark and Cut Stump Application

Basal Bark

DO NOT apply to wet stems as this can repel the diesel mixture.

Spray or paint the recommended mixture around the base of each stem from ground level to a height of at least 30 cm from the ground, wetting the bark to the point of runoff.

Apply with a paint brush or a pressure sprayer with an approximate lance and solid cone nozzle. If using spray equipment use low pressures (< 200 kPa) sufficient to form a cone of spray.

Old rough bark will require more spray than smooth or young thin bark.

Cut Stump

Apply the recommended mixture liberally to the freshly cut stump immediately after cutting.

Apply by spraying or painting the cut surface and sides of the stump.

Best results are obtained when the stems are cut less than 15 cm above the ground.

CLEANING SPRAY EQUIPMENT

Rinse water should be discharged onto a designated disposal area or, if this is unavailable, onto wasteland away from desirable plants and water courses.

Cleaning equipment after using water-based sprays:

Rinsing: After using Apparent Fireball 400 Herbicide, empty the tank completely and drain the whole system. Thoroughly wash inside the spray unit using a pressure hose. Drain and clean any filters in the tank, pump, lines, hoses and nozzles.

After cleaning the tank as above, quarter fill the clean water and circulate through the pump, lines and nozzles. Drain and repeat the rinsing procedure twice.

Decontamination (before spraying cotton and other sensitive crops; see PROTECTION OF CROPS): Wash the tank and rinse the system as above. Then quarter fill the tank and add an alkali detergent (e.g. liquid SURF, OMO, DRIVE) at 500 mL/100 L of water or the powder equivalent at 500 g/100 L and circulate throughout the system for at least fifteen minutes.

Drain the whole system. Remove filters and nozzles and clean them separately. Finally flush the system with clean water and allow to drain.

Cleaning equipment after using diesel-based sprays:

On completion of spraying, use a degreaser such as Caltex Kwik-D-Grease to remove traces of diesel from the sprayer. Rinse tank and spray through nozzles with water to remove degreaser. Then quarter fill the tank and add an alkali detergent (e.g. liquid SURF, OMO, DRIVE) at 50 mL/10 L of water or the powder equivalent at 50 g/10 L. Shake sprayer to circulate the washing solution throughout the sprayer, then spray the solution through the nozzles. Rinse well with clean water to remove the detergent.

To clean brushes and containers, spray liberally with degreaser. Hose off with clean water and repeat using detergents as above.

DO NOT use this equipment for any other purpose.