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



Fireball 400

HERBICIDE

ACTIVE CONSTITUENT: 400g/L FLUROXYPYR
present as the METHYLHEPTYL ESTER

SOLVENTS: 316g/L LIQUID HYDROCARBON
100g/L N-METHYL PYRROLIDONE

GROUP | **HERBICIDE**

For the control of a wide range of broadleaf Weeds in Fallow, Lucerne, Maize, Millets, Pastures, Poppies, Sorghum, Sugar Cane, Sweet Corn, 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.

IMPORTANT: Read this booklet before use.

APVMA Approval No: 81917/122959

AIRR APPARENT PTY LTD
15/16 Princes Street, Newport NSW 2106
M 0411 227 338 | E enquiries@apparentag.com.au | www.apparentag.com.au

DIRECTIONS FOR USE

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 WEED SITUATIONS section).

DO NOT spray if rain is likely to occur within one hour.

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

Table 2: Established Grass Pastures (Ground and Aerial)

Table 3: Sorghum, Maize, Millets and Sweet Corn

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Table 8: Lucerne (established only)

Table 9: Poppies

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
Bathurst Burr Noogoora Burr	Seedlings and young plants up to 40cm high	QLD, NSW, NT, WA only
Black Bindweed (Climbing Buckwheat)	Seedlings and young plants before flowering	NSW, QLD only
<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
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 30cm diameter	
Cobblers Pegs	Up to 15cm high	
Cockspur Thorn	Up to 3m 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 30cm high	
Hexham Scent	Seedlings and young plants up to flowering	
Honey Locust	Seedlings and young plants up to 2m high	
Small Flowered Mallow (Marshmallow) (<i>Malva parviflora</i>)	Seedlings and young plants up to flowering	NSW, QLD only
Yellowflower Devil's Claw	Seedlings and young plants up to flowering	

RATE mL/100L water	CRITICAL COMMENTS
38	
150	
250	Add Uptake* Spraying Oil (see General Instructions ; Oils and surfactants).
	Boom spray: Apparent Fireball at 0.3L/ha + 0.4L/ha of 2,4-D amine (625g/L).
250	

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

- 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
Lantana	Seedlings and regrowth 0.5 to 1.2m high Plants and regrowth 1.2 to 2m high	NSW, QLD only
Blue Heliotrope	Flowering	
Limebush	Infestations up to 1.5m high only	
Madeira Vine	Apply at time of active growth	
Milkweed (<i>Euphorbia heterophylla</i>)	3 leaf to flowering	QLD only
Common Sowthistle	Seedlings and young plants up to bolting	NSW, QLD only
Mother-of-millions (<i>Kalanchoe</i> spp.)	Seedling and young plants before flowering	
Prickly Acacia	Seedling and young plants up to 2m high	QLD only
<i>Sida</i> spp.	Seedling and young plants up to flowering	NSW, NT, QLD, WA only
Broadleaf Pepper Tree (<i>Schinus terebinthifolius</i>)	Mature leaves, fruiting	QLD only
Flannel Weed (<i>Sida cordifolia</i>)	Mature leaves, fruiting	
Snakeweed (Dark and light blue)	Seedling and young plants before flowering	
Stinking Passion Flower	Established plants and regrowth	QLD, NT, WA only
Wandering Jew (<i>Tradescantia albiflora</i>)	Young plants up to and including flowering	ALL STATES
Wattles (including <i>Acacia aulacocarpa</i> <i>A. decora</i> <i>A. harpophylla</i> <i>A. leiocalyx</i> <i>A. salicina</i>)	Seeding plants or regrowth 0.5 to 1.2m high Plants or regrowth 1.2 to 2.0m high only	NSW, QLD only
BASAL BARK AND CUT STUMP APPLICATION: Dilute product with diesel. See General Instructions – Application Method for application details		
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE
Celtis (<i>Celtis sinensis</i>)	Basal Bark only: Young plants up to 2m high and 20cm basal diameter	QLD only
Chinee Apple	Up to 15cm basal diameter	
Cockspur Thorn	Basal Bark only: Up to 5cm basal diameter	
Mimosa Bush (<i>Acacia farnesiana</i>)	Up to 5cm basal diameter	QLD, WA only
Prickly Acacia	Up to 10cm basal diameter	QLD only
Honey Locust	Plants up to 10cm basal diameter Plants 10 to 20cm basal diameter Plants >20cm basal diameter	QLD, NSW only

RATE mL/100L water	CRITICAL COMMENTS
250	Apply to actively growing plants from October to April. Some regrowth may occur particularly when treating old woody plants with sparse canopies.
500	
250	Repeat applications will be necessary to control subsequent germinations. Add a surfactant (see GENERAL INSTRUCTIONS ; Oils and surfactants).
500	
250	
300	Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants). Consult Tropical Weeds Research Centre, Charters Towers, for specific advice on application.
375	
500	Winter application only. Contact Alan Fletcher Research Station for more information.
250	
250	Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants). Use 70mL/15L for a knapsack.
375	
225	
750	Some regrowth will usually occur and will require retreatment.
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.
500	
RATE/100L of DIESEL	CRITICAL COMMENTS
1.8L	Treat stems from ground level to where multi-stemmed trunks branch.
1.5L	With basal bark, treat circumference of stem to a height of 45cm from the ground. Contact the Land Protection Branch, Department of Lands, QLD, for further information on Chinee Apple.
1.0L	
1.5L	
750mL	With basal bark, treat circumference of stem to a height of 45cm from the ground. For cut stump application use a rate of 5L/100L diesel for all plant sizes. Contact the Land Protection Branch, Department of Lands, QLD, for further information on Honey Locust.
750mL	
1.5L	
2.5L	

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

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

BASAL BARK AND CUT STUMP APPLICATION: Dilute product with diesel. See General Instructions – Application Method for application details		
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE
Sisal Hemp (<i>Agave</i> spp.)	All growth stages	QLD only
BROADCAST AND AERIAL APPLICATION: Dilute product with water. See General Instructions – Application Method for application details		
WEEDS CONTROLLED	WEED GROWTH STAGE	STATE
<i>Mimosa pigra</i>	Actively growing plants	NT, WA only
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
Limebush	Isolated bushes up to 1.2m high only	NSW, QLD only
Tree Violet (<i>Hymenanthera dentata</i>)	Apply from late flowering to green fruit up to 1.2m high	NSW only

Table 2: Established Grass Pastures

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE
Blue Billygoat Weed, Common Sensitive Plant, Giant Sensitive Plant, Spinyhead Sida	Apply before flowering	QLD, WA only
St John's Wort	Apply from bud to full bloom (usually late Nov to early Jan)	ACT, NSW, VIC only
Silverleaf Nightshade	From onset of flowering to early berry-set (usually spring to mid-summer)	NSW only

RATE/100L of DIESEL	CRITICAL COMMENTS
1.5L	Treat as an overall spray. Contact The Land Protection Branch, Department of Lands, QLD for advice to control large infestations.
5mL undiluted product per plant	Lever out centre of plant with crowbar and immediately treat the exposed cut area.
RATE/100L water	CRITICAL COMMENTS
1.5L	Aerial application: Add Uptake Spraying Oil at the rate of 1L/100L spray mix. Apply to actively growing plants from mid to late summer. Contact the Department of Primary Industries and Fisheries, NT for further information.
RATE/100L water	CRITICAL COMMENTS
500mL	Apply a 50mL dose per 5m ² of bush surface area. Apply a 50mL dose per cubic metre of bush.
RATE/100L water	CRITICAL COMMENTS
750mL	Add Uptake Spraying Oil at 1L/ha.
1.5L	Some regrowth will occur. Treat regrowth the following season for best results. Use at least 200L water/ha.
375mL or 190mL + 1.2-1.6L 2,4-D amine (625g/L)	Add Uptake Spraying Oil at 1L/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 & QLD only)

CROP	CROP GROWTH STAGE	WEEDS CONTROLLED
Sorghum	Apply when secondary roots are present, from 4 fully expanded leaves (15cm tall) up to boot (also see CRITICAL COMMENTS)	Annual Ground Cherry Wild Gooseberry (<i>Physalis</i> spp.)
		Apple-of-Peru
		Bathurst Burr Noogoora Burr
Maize Sweet corn	Apply when secondary roots are present, from 3 fully expanded leaves (10cm tall) up to just before tasselling (see CRITICAL COMMENTS)	Pigweed (<i>Portulaca oleracea</i>)
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
		Silverleaf Nightshade (NSW only) (1)
		Starburr (<i>Acanthospermum hispidum</i>) (QLD only)
		Thornapples (<i>Datura</i> spp.)
		Volunteer sunflower

Apparent Fireball in tank-mixes with atrazine: Sorghum, Maize and Sweet Corn

CROP	CROP GROWTH STAGE	WEEDS CONTROLLED
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>), Caltrop (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
	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>Euphorbia davidii</i> Volunteer Peanuts

Sweet Corn: Tasmania only

CROP	CROP GROWTH STAGE	WEEDS CONTROLLED
Sweet corn only	3 to 5 leaf	Blackberry Nightshade Volunteer Potatoes

WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
2 to 8 leaf Up to 15cm tall	250mL	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).
15 to 30cm tall Seedling plants Up to 15cm tall	375mL	
2 to 8 leaf Up to 20cm tall	250mL	
20 to 50cm tall	375mL	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).
Up to 10cm diameter	250mL	
10 to 30cm diameter	375mL	
2 to 6 leaf Up to 10cm tall	750mL	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.
Full flower to early berry	375mL + Uptake at 300mL/100L	
Up to 12 leaf and before flowering	750mL or 375mL + 1.6L atrazine (600g/L)	
2 to 8 leaf Up to 15cm tall	375mL	
2 to 5 leaf Up to 20cm tall	500mL	

WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
Seedling plants up to 15cm tall or rosettes up to 15cm diameter	250mL + 1.2L of atrazine flowable (600 or 675g/L) or 375mL + 1.6L of atrazine flowable (600g/L or 1.1kg of Atrazine 900g/kg granules)	Use the low rate (250mL + 1.2L) when weeds are small (5-7cm tall/ diameter). Use the high rate (375mL + 1.6L) when the weeds are larger (7-15cm tall/diameter). Apparent Fireball is generally more compatible with liquid atrazine products (see GENERAL INSTRUCTIONS ; compatibility section). Add a surfactant (See GENERAL INSTRUCTIONS ; Oils and surfactants).
Cotyledons to 4 nodes up to 15cm	500mL + 1.6L atrazine flowable (600g/L or 1.1kg of Atrazine 900g/kg granules)	DO NOT add an oil to mixtures of Apparent Fireball and atrazine.
Up to 15cm diameter	500mL + 3.7L atrazine flowable (600g/L or 2.5kg of Atrazine 900g/kg granules)	

WEED GROWTH STAGE	RATE/ha	CRITICAL COMMENTS
3 to 5 leaf	500mL	

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

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE	STATE
Apply from 3 leaf to flag (Zadoks 13 to 39)	Bedstraw (<i>Galium tricornutum</i>)	1 to 3 whorl	VIC, SA, WA only
	Cleavers (<i>Galium aparine</i>)		NSW, VIC only
	Black Bindweed (Climbing Buckwheat)	2 to 4 leaf	NSW, QLD only
		2 to 6 leaf	
	Common Sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf	
	Deadnettle	2 to 6 leaf	
	Spiny Emex (Doublegee, Three Cornered Jack)	2 to 4 leaf	NSW, SA, QLD, WA only
	Prickly Lettuce	2 to 5 leaf	NSW, QLD, TAS, VIC, WA only
	Volunteer Lupins	2 to 8 leaf	NSW, VIC, WA only
	Volunteer Potato	10 to 15cm tall	WA, TAS only
	Wireweed	2 to 3 leaf	NSW, QLD, SA, TAS, VIC, WA only
			NSW, QLD only
	Bittercress (<i>Coronopus didymus</i>), Mustards, Shepherd's Purse, Turnip Weed, Wild Radish, Wild Turnip	Up to 8 leaf and up to 15cm diameter	QLD, NSW, VIC, SA, TAS, WA only

Table 5: Summer Fallow

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE
Annual Ground Cherry Wild Gooseberry (<i>Physalis</i> spp.)	2 to 8 leaf, up to 15cm tall	NSW, QLD only
Bathurst Burr Noogoora Burr	2 to 8 leaf, up to 20cm tall	NSW, QLD, VIC, WA only
Bellvine	Pre-flowering	NSW, QLD only
Bladder Ketmia	4 to 8 leaf, up to 10cm tall	
Cowvine (Peach Vine) <i>Ipomoea lonchophylla</i>	2 to 10 leaf up to 10cm diameter	
Caltrop (Yellow Vine) including <i>Tribulus terrestris</i> , <i>T. maximus</i> and <i>T. microccus</i>	Up to 15cm diameter	
Pigweed (<i>Portulaca oleracea</i>)	Up to 10cm diameter	
	Up to 60cm diameter	
<i>Polymeria pusilla</i>	2 to 10 leaf up to 20cm diameter	
Rhynchosia	Seedlings to early flowering	
Smallflower Mallow or Marshmallow (<i>Malva parviflora</i>)	Up to 8 leaf up to 20cm diameter	
Thornapples (<i>Datura</i> spp.)	2 to 8 leaf up to 15cm diameter	NSW, QLD, WA only
Sesbania Pea	2 to 6 leaf up to 10cm tall	NSW, QLD only
Perennial Ground Cherry (<i>Physalis virginiana</i>) ⁽⁶⁶⁾	Bud to early flowering up to 20cm tall	

RATE/ha	CRITICAL COMMENTS
500mL	⁽¹⁾ Add either Uptake or a surfactant (see GENERAL INSTRUCTIONS ; Oils and surfactants).
250mL ⁽¹⁾	Useful suppression only.
375mL or 250mL + 5g Metsulfuron methyl ⁽¹⁾	Mixtures: Mixing partners with Apparent Fireball may reduce crop selectivity. Apply at crop growth stages according to the mixing partner's recommendation.
500mL	
750mL or 250mL + 5g Metsulfuron methyl ⁽¹⁾	
500mL	
750mL	Plants 15 to 30cm tall will only be suppressed.
750mL	
250mL + 5g Metsulfuron methyl ⁽¹⁾	
250mL to 1.5L + Metsulfuron methyl or Eclipse ⁽¹⁾ or MCPA LVE or MCPA amine	The Apparent Fireball rate depends on what other weeds are present as listed above. See Mixtures comment above. Metsulfuron methyl (600g/kg) at 5g/ha (this mix does not control Wild Radish). Eclipse at 5-7g/ha (use the 5g rate on Turnip Weed only). MCPA LVE (600g/L) at 700mL/ha. MCPA Amine (500g/L) at 1.0L/ha.

RATE/ha	CRITICAL COMMENTS
375mL ⁽²⁾	⁽¹⁾ Add Uptake* Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants).
250mL + 1.2L Glyphosate 450	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).
250mL + 1.0L Glyphosate 450	⁽²⁾ Delay treatment until the maximum number of shoots have emerged, but before the onset of fruiting (late summer).
375mL ⁽¹⁾	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.
375mL + 1.0L Glyphosate 450	
500mL ⁽¹⁾ or 250mL + 1.2L Glyphosate 450	
500mL ⁽¹⁾ or 190mL + 800mL Glyphosate 450	
500mL ⁽¹⁾	
375mL ⁽¹⁾ or 250mL + 1.2L Glyphosate 450	
750mL ⁽¹⁾ or 250mL + 1.2L Glyphosate 450	
750mL or 1.5L ⁽¹⁾	

Table 5: Summer Fallow (continued)

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE
Silverleaf Nightshade	Full flower to early berry- set (usually Dec – Feb)	NSW only
Volunteer Peanuts	Up to 15cm diameter	QLD only
Volunteer Sunflowers	2 to 5 leaf up to 20cm	NSW, QLD only

Table 6: Winter Fallow

WEEDS CONTROLLED	WEED GROWTH STAGE	STATE
Bedstraw (<i>Galium tricornutum</i>)	Up to 5 whorl	VIC, SA, WA only
Cleavers (<i>Galium aparine</i>)		NSW, VIC only
Black Bindweed (Climbing Buckwheat)	2 to 8 leaf up to 10cm diameter	NSW, QLD only
Common Sowthistle (<i>Sonchus oleraceus</i>)	2 to 5 leaf up to 10cm diameter	
Prickly Lettuce		
Spiny Emex (Doublegee, Three Corned Jack)	2 to 8 leaf	
Wireweed	2 to 3 leaf up to 10cm tall	

Table 7: Sugar cane (QLD, NSW, NT and WA only)

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE
From early tillering to maturity	Balsum Pear, Blackberry Nightshade, Blue Billygoat Weed, Centro, Cowpea, Giant Sensitive Plant, Lablab Bean, Noogoora Burr, Phasey Bean, Pinkburr, Prickly African Cucumber, Spinyhead Sida, Stinking Passion Flower (seedlings only)	Apply from 2 to 3 leaf until flowering
	Bellvine, Morning Glory, Red or Pink Convolvulus, Star-of-Bethlehem	
	Stinking Passion Flower	Established or ratoon plants with at least 1.0m of regrowth
	Milkweed (<i>Euphorbia heterophylla</i>)	Seedlings and young plants up to flowering

Table 8: Lucerne (NSW only)

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE
Established crops at least eighteen months old	Annual Ground Cherry, Bathurst Burr, Noogoora Burr, Wild Gooseberry	2 to 8 leaf up to 15cm high
	Pigweed	Up to 10cm diameter

RATE/ha	CRITICAL COMMENTS
375mL or 190mL + 1.2-1.6L 2,4-D amine (625g/L)	Add Uptake Spraying Oil at the rate of 1L/100L 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.
500mL + 3.7L atrazine flowable (600g/L)	Add a surfactant (see GENERAL INSTRUCTIONS ; Oils and surfactants). Important: See GENERAL INSTRUCTIONS ; compatibility section).
500mL	Add Uptake Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants section).

RATE/100L water	CRITICAL COMMENTS
500mL ⁽¹⁾	⁽¹⁾ Add Uptake Spraying Oil (see GENERAL INSTRUCTIONS ; Oils and surfactants section).
375mL ⁽¹⁾	⁽²⁾ Add Uptake of a surfactant (see GENERAL INSTRUCTIONS ; Oils and surfactants section).
500mL ⁽¹⁾ or 250mL + 600mL Glyphosate 450	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).
750mL ⁽¹⁾ or 250mL ⁽²⁾ + 5g Metsulfuron methyl (600g/kg)	
750mL ⁽¹⁾ or 250mL ⁽²⁾ + 5g Metsulfuron methyl (600g/kg) or 0.5 ⁽²⁾ + 0.6 Glyphosate 450	

RATE/ha	CRITICAL COMMENTS
Ground: 650mL Aerial: 750mL	For optimal weed control, delay application until just before the "close-in" stage. Aerial application: Apply in not less than 60L/ha water and add Uptake Spraying Oil at 1L/100L spray mixture. Ground application: Apply in 100-400L/ha water and add Uptake Spraying Oil at 300mL/100L of spray mixture.
As above + 800mL 2,4-D amine (625g/L)	
High volume: 225mL/100L water Knapsack: 35mL/15L water	Thoroughly wet plants to the point of run-off.
1.5L or 1.15L + 3.3L atrazine flowable (600g/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.

RATE/ha	CRITICAL COMMENTS
250mL	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 can be mixed with 2,4-DB Amine.

Table 9: Poppies (Tas only)

CROP GROWTH STAGE	WEEDS CONTROLLED	WEED GROWTH STAGE
4 to 6 leaf	Cleavers Fumitory	2 to 6 leaf
	Shepherd's Purse Wireweed	
8 to 10 leaf	Common Sowthistle Prickly Lettuce	2 to 5 leaf
	Blackberry Nightshade	Cotyledon 4 leaf
	Fumitory	6 to 10 leaf
	Volunteer potato	From tuber initiation to flower bud

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

WITHOLDING PERIODS:

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.

MINIMUM RECROPPING PERIODS

PLANT-BACK PERIODS FOR CROPS FOLLOWING THE APPLICATION OF Apparent Fireball FOR RATES UP TO 750mL/ha

RATE/ha	190mL	375mL	750mL
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 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 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 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. 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). Add spraying oils and surfactants (wettors) last.

OILS AND SURFACTANTS

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

RATE/ha	CRITICAL COMMENTS
500mL	DO NOT apply Apparent Fireball to poppies later than the 8 to 10 leaf growth stage as a reduction of alkaloid content could occur.
500mL + 5L Asulox*	
500mL	
750mL	This rate will provide season long control of volunteer potato, but will not control all daughter tubers and will only suppress potatoes over 15cm tall.

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

COMPATIBILITY

Apparent Fireball is compatible with the herbicides listed. Follow any regional restrictions, and all directions and restrictions on the label, of any chemical mixed with Apparent Fireball.

Atrazine (see below)	Glyphosate 360	Lontrel	Metsulfuron methyl (600g/kg)	Glyphosate 450
MCPA	Broadstrike	Topik 240 EC (see below)	Puma S	Eclipse
Tordon 75-D	2,4-D	Diclofop methyl	Tordon 242	2,4-DB
Triclopyr (600g/L)	Touchdown			

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 100g/100L water, before adding any herbicide may improve compatibility.

AGITATION IS VERY IMPORTANT WHEN MIXING Apparent Fireball AND ATRAZINE.

Apparent Fireball 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 2000L). 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 100mL/100L of spray mix. DO NOT use a spraying oil when tank mixing Apparent Fireball and atrazine.

TOPIK 240 EC

Always use Uptake Spraying Oil with Apparent Fireball + Topik 240 EC tank-mixes at 500mL/100L of spray mix with a minimum of 250mL/ha. DO NOT mix Apparent Fireball 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 at more than 0.75L/ha in tank mixes with Topik 240 EC.

GLYPHOSATE 450

When mixing Apparent Fireball 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 1.2L/ha in tank mixes with Apparent Fireball, 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

Ground application (Boom): Apply Apparent Fireball with an accurately calibrated boom sprayer, in at least 50L/ha water (100-400L/ha for sugar cane). Flat nozzles are recommended using pressures in the range 200 to 300kPa. Set the boom at a height to ensure a double overlap of the nozzle patterns.

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.

Aerial application: Apply in a minimum volume of at least 35L/ha water (60L/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 1500kPa. To obtain good coverage, a spray volume of 1500 to 4000L/ha (15 to 40L/100m²) 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 50mL shots to cover 4 to 5m² 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 repeat the diesel mixture. Spray or paint the recommended mixture around the base of each stem from ground level to a height of at least 30cm from the ground, wetting the bark to the point

of runoff. Apply with a paint brush or a pressure sprayer with an appropriate lance and solid cone nozzle. If using spray equipment use low pressures (< 200kPa) 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 15cm 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, 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 500mL/100L of water or the powder equivalent at 500g/100L 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 50mL/10L of water or the powder equivalent at 50g/10L. 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.

RESISTANT WEEDS WARNING

GROUP	HERBICIDE
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Apparent Fireball 400 Herbicide is a member of the pyridine 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 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, AIRR Apparent Pty Ltd accepts no liability for any losses 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 AIRR Apparent representative.

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 tree, 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 (*Cynodon dactylon*), Kikuyu Grass and Carpet Grass (*Axonopus* sp.) DO NOT allow spray to drift onto susceptible crops, shade trees and *Pinus* spp. DO NOT use under weather conditions or from spraying equipment which could cause spray to drift onto nearby susceptible plants.

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. 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 watercourses with the chemical or used containers. Alongside watercourses, treat only noxious weeds and poisonous plants.

STORAGE AND DISPOSAL

Storage for all containers: Store in closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight.

Recycled containers: This container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple rinse container before disposal. Dispose of rinsate by adding to the spray tank. DO NOT dispose of undiluted chemicals 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 a drumMUSTER collection or similar container management site. The cap should not be replaced but may be taken separately.

Non-recycled containers: Triple rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. 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.

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

Will irritate the eyes and skin. Avoid contact with eyes and skin. Sensitive workers should use protective clothing. When opening the container and 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 and a face shield or goggles. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Wash hands after use.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766. If swallowed, DO NOT induce vomiting.

SAFETY DATA SHEET

Additional information is listed on the Safety Data Sheet which is available from the supplier.

CONDITIONS OF SALE

The use of Apparent Fireball 400 Herbicide being beyond the control of the manufacturer no warranty expressed or implied is given by AIRR Apparent Pty Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and AIRR Apparent Pty Ltd accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

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