

POISON

KEEP OUT OF REACH OF CHILDREN

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Bugmaster®

FLOWABLE INSECTICIDE

ACTIVE CONSTITUENT: 500 g/L CARBARYL (an anti-cholinesterase compound)

GROUP 1A INSECTICIDE

*For the control of certain insects in fruit, nuts, vegetables, crops and pastures;
and for certain other uses as specified in the DIRECTIONS FOR USE table.*

IMPORTANT: READ THE ATTACHED BOOKLET BEFORE USE

Distributed by:

AgNova Technologies Pty Ltd

ABN 70 097 705 158

Suite 3, 935 Station Street

Box Hill North, Vic. 3129 Australia

Phone (03) 9899 8100

agnova.com.au

Tessengerlo Kerley, Inc.

2255 N. 44th Street, Suite 300

Phoenix, Arizona 85008 USA

All rights reserved.



**In a transport emergency dial 000, Police or Fire Brigade
For specialist advice in an emergency only,
call 1800 033 111 (24 hours)**

CROP INDEX

CROP/SITUATION	Page No.	CROP/SITUATION	Page No.
Apples	6	Mangoes	6
Apricots	7	Nectarines	7
Avocados	5	Non-crop areas	10
Beetroot	7	Oranges	5
Cereals	8	Ornamentals	9
Citrus (oranges and lemons only)	5	Pasture seed crops	8
Commercial areas	10	Pastures	8
Cotton	8	Peaches	7
Coconut	5	Pears	6
Cucurbits (melons and other cucurbits, prior to flowering only)	7	Pecans	6
Duboisia	8	Plums	7
Elm Trees	9	Pome fruit	6
Feijoa (non-fruiting / non-flowering only)	5	Pome fruit (thinning)	6
Grapes (butt treatment only)	5	Potatoes	7
Guavas (non-fruiting / non-flowering only)	5	Prunes	7
Indian sandalwood (plantations & nurseries)	9	Rambutans (non-fruiting / non-flowering only)	6
Industrial areas	10	Raspberries	6
Jaboticaba (non-fruiting / non-flowering only)	6	Rice	8
Jackfruit (non-fruiting / non-flowering only)	6	Rights of way	10
Kenaf (non food crops only)	8	Rosella (non food crops only)	7
Lemons	5	Roses	9
Longans	6	Sorghum	8
Loquats (thinning, up to fruit size 10 mm only)	6	Stone fruit (except cherries)	7
Lucerne	8	Strawberry (runner production only)	7
Litchis (non-fruiting / non-flowering only)	6	Swedes	7
Macadamias	6	Sweet potato	7
Maize	8	Tobacco bulk sheds	10
		Turnips	7

PEST INDEX

PEST		Page No.
28-Spotted Ladybird	<i>Epilachna virgintisex punctata</i>	7
Ants	F. FORMICIDAE	10
Armyworms	F. NOCTUIDAE	6, 7, 8
Australian Plague Locust	<i>Chortoicetes terminifera</i>	8
Beetles	O. COLEOPTERA	9
Black Sunflower Scarab	<i>Pseudoheteronyx</i> spp.	8
Bronze Orange Bug	<i>Musgraveia sulciventris</i>	5
Brown Planthopper	<i>Nilaparvata lugens</i>	8
Cabbage Moth	<i>Plutella xylostella</i>	7, 9
Cabbage White Butterfly	<i>Pieris rapae</i>	7, 9
Castor Oil Looper	<i>Achaea janata</i>	6
Caterpillars	O. LEPIDOPTERA	9
Chewing Insects	Various	9
Citrus Leaf-eating Caterpillar	Various	5
Cluster Caterpillar	<i>Spodoptera litura</i>	8, 9
Codling Moth	<i>Cydia pomonella</i>	6
Common Mango Scale	<i>Aulacaspis tubercularis</i>	6
Cornelian (Butterfly)	<i>Deudoryx epijarbas divovis</i>	6
Cucurbit Stemborer	<i>Apomecyna histrio</i>	7
Cutworms	<i>Agrotis</i> spp.; F. NOCTUIDAE	5, 7, 8, 9
Early Fruit Caterpillars (Heliothis)	<i>Helicoverpa</i> spp.	6
Elm Leaf Beetle	<i>Pyrrhalta luteola</i>	9
English wasp	<i>Vespula germanica</i>	10
European Earwig	<i>Forficula auricularia</i>	7, 9, 10

PEST INDEX

PEST		Page No.
European wasp	<i>Vespula vulgaris</i>	10
Fig Leafhopper	<i>Austroasca australica</i>	6
Flattid Planthoppers	F. FLATIDAE	6
Fleas	O. SIPHONAPTERA	10
Fruit-tree Borer	<i>Cryptophasa melanostigma</i>	7
Fruit Piercing Moth (Fruit Sucking Moth)	Various	5
Fuller's Rose Weevil	<i>Asynonychus cervinus</i>	5
Grass Caterpillar	<i>Herpetogramma licarsisalis</i>	8
Grasshoppers	F. ACRIDIDAE	6, 7, 8, 10
Green Treehopper	<i>Sextius virescens</i>	7
Green Vegetable Bug	<i>Nezara viridula</i>	7, 9
Heliothis (Budworms)	<i>Helicoverpa</i> spp.	6, 7, 8, 9
Honey Bees in concealed hives	<i>Apis mellifera</i>	10
Jassids (See Leafhoppers)		
Leaf Eating Beetles	F. CHRYSOMELIDAE	7
Leaf Eating Ladybirds	<i>Epilachna</i> spp.	7, 8, 9
Leafeating Loopers	F. GEOMETRIDAE	6
Leafhoppers (Jassids)	F. CICADELLIDAE	8
Leafroller Moths	F. TORTRICIDAE	6, 9
Lightbrown Apple Moth	<i>Epiphyas postvittana</i>	5, 6, 7, 9
Loopers	F. GEOMETRIDAE	9
Lucerne Flea	<i>Sminthurus viridis</i>	8
Lucerne Leafroller	<i>Merophyas divulsana</i>	8
Macadamia Cup Moth	<i>Comana fasciata</i>	6
Macadamia Nutborer (Macadamia Nut Moth)	<i>Cryptophlebia ombrodelta</i>	6
Macadamia Twig-girdler	<i>Neodrepta luteotactella</i>	6
Mealybugs	F. PSEUDOCOCCIDAE	6
Migratory Locust	<i>Locusta migratoria</i>	8
Monolepta Beetle (see Redshouldered Leaf Beetle)		
Moths	O. LEPIDOPTERA	10
Orange Fruit Borer	<i>Isotenes miserana</i>	5, 6, 7
Oriental Fruit Moth	<i>Cydia molesta</i>	7
Pasture Cockchafer	F. SCARABAEIDAE	8
Pasture Leafhopper	<i>Toya</i> spp.	8
Pear and Cherry Slug	<i>Caliroa cerasi</i>	6, 7
Pearleaf Blister Mite	<i>Phytoptus pyri</i>	6
Pink Wax Scale	<i>Ceroplastes rubens</i>	5, 6
Potato Moth	<i>Phthorimaea operculella</i>	7, 9
Pumpkin Beetle	<i>Aulacophora hilaris</i>	7, 9
Raspberry Fruit Caterpillar	<i>Lobesia</i> spp.	6
Redshouldered Leaf Beetle (monolepta beetle)	<i>Monolepta australis</i>	5, 6, 7, 8, 9
Rough Bollworm	<i>Earias huegeli</i>	8
Rutherglen Bug	<i>Nysius vinitor</i>	6, 7, 8, 9
Rhyparida Beetle	<i>Rhyparida</i> spp.	6
Sandal-box Hawk Moth	<i>Coenotes eremophilae</i>	8
Sitona Weevil	<i>Sitona discoideu</i>	8
Sorghum Midge	<i>Contarinia sorghicola</i>	8
Spined Citrus Bug	<i>Biprorulus bibax</i>	5
Sucking insects	Various	9
Swarming Leaf Beetle	<i>Rhyparida</i> spp.	6
Tobacco Beetle	<i>Lasioderma serricorne</i>	10
Tobacco Leaf Miner	<i>Phthorimaea operculella</i>	9
Vegetable Weevil	<i>Listroderes difficilis</i>	7
Wasps (see English & European wasp)		
Weevils	F. CURCULIONIDAE	6, 10
White Wax Scale	<i>Gascardia destructor</i>	5, 9
Wingless Grasshopper	<i>Phaulacridium vittatum</i>	5, 6, 7, 8, 9, 10
Yellow Peach Moth	<i>Conogethes punctiferalis</i>	5, 6
Yellow-winged Locust	<i>Gastrimargus musicus</i>	8

DIRECTIONS FOR USE

RESTRAINTS

DO NOT make more than four applications per season to avocados.

DO NOT make more than three applications per season to mangoes.

DO NOT apply by air unless otherwise specified.

DO NOT allow spray to drift off-target onto sensitive areas, including (but not limited to) natural streams, rivers, waterways, wetlands, waterbodies, watercourses or neighbouring properties.

The application of Bugmaster Flowable to flowering crops during the period 7 days prior to flowering to 30 days post flowering may result in fruit thinning. DO NOT apply Bugmaster Flowable to flowering crops during this period if fruit thinning is unacceptable.

Aerial application

When mixing and loading Bugmaster Flowable for aerial application, the use of a closed transfer/mixing system is required to reduce operator exposure to an acceptable level.

If Bugmaster Flowable is being applied by air and flaggers are required to be used, they must be protected by engineering controls. Engineering controls include closed cabins of tractors or vehicles where a flagger will not be exposed to spray from the aircraft.

TREE AND VINE CROPS

RATE			WHP	CRITICAL COMMENTS
CROP	PEST	RATE (dilute spraying)		
In the following table, all rates given are for dilute spraying. Where appropriate, for concentrate spraying, refer to the Application section in the GENERAL INSTRUCTIONS.				Where appropriate apply by dilute or concentrate spraying equipment. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.
Avocados	Redshouldered leaf beetle, wingless grasshopper	200 mL/100 L water	3 days (H)	Apply when infestation is first observed and repeat as swarms re-infest.
Citrus (oranges and lemons only)	Lightbrown apple moth, yellow peach moth, fruit piercing moth (fruit sucking moth), orange fruit borer, citrus leaf-eating caterpillar, Fuller's rose weevil, wingless grasshopper	160 to 200 mL/100 L water		Apply at first sign of pest activity and repeat at intervals of 2 weeks or as necessary. Use higher rate when higher insect pressure occurs.
	Spined citrus bug, bronze orange bug	100 mL/100 L water		Fuller's rose weevil: Spray lower parts of the trees and ground beneath.
	Pink wax scale, white wax scale	140 mL plus 1.0 L summer spray oil per 100 L water	Spray trees thoroughly to dripping point in late November to early December followed by a second application in late January to early February. Add the summer oil to water in vat before Bugmaster Flowable. Keep the mixture agitated while spraying. Note: Concentrate spraying is not appropriate for this use.	
Coconut (non-flowering / non-fruiting trees only)	Palm leaf beetle	200 mL/100 L water or 2.2 L/ha	–	Apply at first sign of pest activity and repeat as necessary.
Feijoa, guavas (non-flowering / non-fruiting trees only)	Orange fruit borer, wingless grasshopper	200 mL/100 L water	–	Spray trees thoroughly to dripping point in late November to early December followed by a second application in late January to early February. Add the summer oil to water in vat before Bugmaster Flowable. Keep the mixture agitated while spraying. Note: Concentrate spraying is not appropriate for this use.
Grapes (butt treatments only)	Cutworms	160 to 200 mL/100 L water		Spray around base of plants when attack first noticed. Use higher rate where high insect pressure occurs.

TREE AND VINE CROPS Cont.

CROP	PEST	RATE (dilute spraying)	WHP	CRITICAL COMMENTS
Jaboticaba, jackfruit (non-flowering / non-fruiting trees only)	Swarming leaf beetle, wingless grasshopper	200 mL/100 L water	–	Several applications may be needed. DO NOT apply after commencement of flowering.
Loquats	Fruit thinning	200 mL/100 L water		Only to be used for fruit thinning, up to fruit size 10 mm.
Longans, Litchis (non-flowering / non-fruiting trees only)	Castor oil looper, leaf eating loopers, macadamia nutborer, redshouldered leaf beetle, swarming leaf beetle, yellow peach moth, monolepta beetle, rhyparida beetle, leafroller moths, wingless grasshopper			Apply at first sign of pest activity and repeat spray as necessary. Thorough coverage of foliage is required.
Macadamias	Macadamia nutborer, macadamia twig-girdler, redshouldered leaf beetle, cornelian (butterfly), macadamia cup moth, macadamia nut moth, yellow peach moth	200 mL/100 L water		Apply a preventative spray after moths have been flighting.
	Wingless grasshopper			Spray infested area thoroughly as required.
Mangoes	Fig leafhoppers	200 mL/100 L water	7 days (H)	Apply when large populations appear on leaf stalks (October - November).
	Wingless grasshopper			Spray infested area thoroughly as required.
	Flattid plant hoppers, pink wax scale, common mango scale	140 mL/100 L water		Apply in December.
Pecans	Orange fruit borer, yellow peach moth	200 mL/100 L water	–	Apply to mature trees carrying nuts. Direct spray to clusters of nuts where pests build up.
POME FRUIT Apples, Pears Refer to the 'Pome Fruit' section in GENERAL INSTRUCT- IONS for information on crop safety.	Early fruit caterpillars (heliiothis), codling moth, lightbrown apple moth, pearleaf blister mite, wingless grasshopper	160 to 200 mL/ 100 L water	11 weeks (H)	Apply at first sign of pest activity. Repeat spray at 21 day intervals during the season. Use higher rate where high insect pressure occurs. A reduction in fruit set may occur if application is made within 30 days after full bloom. DO NOT apply to apples and pears within 30 days AFTER full bloom if reduction in fruit set is not desired.
	Fruit thinning			A careful appraisal of all factors likely to thin the crop should be made before spraying. If reduction in fruit set is desired apply between 7 to 28 days after full bloom.
	Pear and cherry slug	200 mL/100 L water		Apply as pest populations indicate.
Rambutans (non-flowering / non-fruiting trees only)	Castor oil looper, redshouldered leaf beetle, swarming leaf beetle, wingless grasshopper	200 mL/100 L water	–	Apply at first sign of pests and repeat as required.
Raspberries	Grasshoppers, heliiothis, mealybugs, Rutherglen bug, weevils, armyworm, lightbrown apple moth, raspberry fruit caterpillar, wingless grasshopper		7 days (H)	

TREE AND VINE CROPS Cont.

CROP	PEST	RATE (dilute spraying)	WHP	CRITICAL COMMENTS
STONE FRUIT Apricots, nectarines, peaches, plums, prunes only. "DO NOT use on cherries"	Green treehopper, lightbrown apple moth, oriental fruit moth, pear and cherry slug, redshouldered leaf beetle, orange fruit borer, heliothis (budworms)	160 to 200 mL/100 L water	5 weeks (H)	Apply at first sign of pest activity and repeat at intervals of 2 weeks or as necessary. Use higher rate where high insect pressure occurs. Spot spraying may be all that is required to control redshouldered leaf beetle.
	Wingless grasshopper	200 mL/100 L water		Spray infested area thoroughly as required.
	Fruit-tree borer	290 mL/100 L water		Apply to areas of trunks and limbs showing damage by borer. Ensure that protective webbing and surrounding bark is saturated. Allow spray to enter larvae tunnel. Apply by coarse spray twice at 21 day intervals during winter. Note: Concentrate spraying is not appropriate for this use.
	European earwig	200 mL/100 L water		Apply when pests are present and repeat as necessary.

FRUIT AND VEGETABLES

CROP	PEST	RATE (dilute spraying)	WHP	CRITICAL COMMENTS
Beetroot	Vegetable weevil	300 mL/100 L water	3 days (H)	Apply at first sign of pest activity and repeat as necessary.
	Wingless grasshopper, green vegetable bug, heliothis (budworms), leaf eating ladybirds, cutworms, European earwig, potato moth, Rutherglen bug, armyworms	160 to 200 mL/100 L water		Apply at first sign of pest activity and repeat as necessary. Use higher rate where high insect pressure occurs.
Cucurbits (melons and other cucurbits, prior to flowering only)	Heliothis (budworms), pumpkin beetle, 28-spotted ladybird, cucurbit stemborer, wingless grasshopper, green vegetable bug, leaf eating ladybirds, cutworms, European earwig, potato moth, Rutherglen bug, armyworms	200 mL/100 L water	–	
Rosella (non-food crops)	Leaf eating beetles, wingless grasshopper, green vegetable bug, heliothis (budworms), leaf eating ladybirds, cutworms, European earwig, potato moth, Rutherglen bug, armyworms	200 mL/100 L water		
Potatoes	Potato moth, wingless grasshopper, green vegetable bug, heliothis (budworms), leaf eating ladybirds, cutworms, European earwig, Rutherglen bug, armyworms	200 mL/100 L water OR 2.2 L/ha	3 days (H)	Apply at first sign of pest activity. Use sufficient water for good coverage. One or two later sprays at 3 to 4 week intervals could be required.
Sweet potato	Sweet potato weevil		3 days (H)	Apply at first sign of pest activity and repeat as necessary.
Turnips (Swede)	Vegetable weevil, wingless grasshopper, cabbage white butterfly, green vegetable bug, heliothis (budworms), pumpkin beetle, leaf eating ladybirds, cutworms, European earwig, potato moth, Rutherglen bug, armyworms, cabbage moth	300 mL/100 L	3 days (H)	Apply at first sign of pest activity and repeat as necessary.
Strawberry (runner production only)	Grasshoppers	200 mL/100 L water	–	Apply at first sign of pest activity and repeat as necessary.

FIELD CROPS AND PASTURES

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Cereals, including sorghum and maize	Armyworms, cutworms, heliothis (budworms), redshouldered leaf beetle, Rutherglen bug, wingless grasshopper	160 to 200 mL/ 100 L water OR 1.8 to 2.2 L/ha	14 days (H & G)	Apply when pest appears and repeat as necessary. Use higher rate where high insect pressure occurs.
	Australian plague locust, migratory locust, yellow-winged locust	1.2 to 1.4 L/ha		Apply when pest appears and repeat as necessary. Use higher rate on adults.
Cotton	Rough bollworm, black sunflower scarab	200 mL/ 100 L water OR 2.2 L/ha	3 days (H)	Apply when pest appears and repeat at 7 to 14 day intervals as necessary. DO NOT use on cotton after 25% of bolls have opened.
Duboisia	Australian plague locust, cluster caterpillar, grasshoppers, leaf eating ladybirds, sandal-box hawk moth		–	Apply when pest appears and repeat as necessary.
Kenaf (non-food crops)	Redshouldered leaf beetle	2.2 L/ha	–	Apply as pest pressure indicates.
Lucerne	Lucerne leafroller, sitona weevil	1.8 L/ha	7 days (G)	Apply at first sign of pest activity and repeat as necessary. Use sufficient water for adequate coverage.
	Heliothis (budworms), leafhoppers (jassids)	2.2 L/ha		
	Lucerne flea	500 mL/ha		
Pastures, pasture seed crops	Wingless grasshopper	160 mL/100 L water	7 days (G)	Spray infested areas thoroughly as required.
	Grass caterpillar	1.1 L/ha		Apply when pest appears and repeat when necessary.
	Pasture leafhopper	200 mL/100 L water OR 1.6 L/ha		DO NOT use excessively in areas where grass is germinating. Use higher rate on adult locusts or when high insect pressure occurs.
	Migratory locust, yellow-winged locust, Australian plague locust	1.2 to 1.4 L/ha		Pasture cockchafer: Apply about 4 weeks after opening rains.
	Cutworms, sitona weevil, pasture cockchafer, armyworms, heliothis (budworms)	2.2 L/ha		WARNING: Some cultivars of tropical pasture legumes may develop phytotoxic symptoms after use.
	Lucerne leafroller, armyworms, cutworms, sitona weevil	1.8 to 2.2 L/ha OR 200 mL/100 L water		Lucerne flea: Apply 3-5 weeks after opening autumn rains and repeat as necessary.
	Lucerne flea	500 mL/ha		
Rice	Brown planthopper	2.2 L/ha	14 days (H & G)	Apply as pest populations indicate. Under heavy pressure, re-treatment after 14 days may be necessary. Phytotoxicity may occur if applied within 15 days before or after use of propanil. DO NOT apply before heading if propanil has been or will be applied.
Sorghum	Sorghum midge, heliothis (budworms)	160 to 200 mL/ 100 L water OR 1.8 to 2.2 L/ha		Make first application when 1 to 2 midges are present per head and when 90% heads emerged. Further applications at 4 day intervals may be required depending on crop potential. Aerial Application: Apply in not less than 15 to 20 L water.

ORNAMENTALS

SITUATION	PEST	RATE	CRITICAL COMMENTS
Ornamentals	Beetles, caterpillars, chewing insects, cabbage moth, cabbage white butterfly, cutworms, European earwig, green vegetable bug, heliothis (budworms), leaf eating ladybirds, leafroller moths, loopers, potato moth, pumpkin beetle, Rutherglen bug, sucking insects, tobacco leaf miner	200 mL/100 L water OR 2.2 L/ha	Apply when pests appear and repeat as necessary. The product may be used as often as necessary with predatory mites (<i>Phytoseiulus persimilis</i>). NOTE: Because of the wide range of ornamentals and their pests, phytotoxicity and efficacy of this product cannot be guaranteed, so use a small test area before widespread use.
	Wingless grasshopper	175 mL/100 L water	Spray infested areas thoroughly as required. NOTE: Because of the wide range of ornamentals and their pests, phytotoxicity and efficacy of this product cannot be guaranteed, so use a small test area before widespread use.
	White wax scale	150 mL PLUS 1.0 L summer spray oil per 100 L water	Apply in late November to early December. An additional application in late January to early February may be required. NOTE: Because of the wide range of ornamentals and their pests, phytotoxicity and efficacy of this product cannot be guaranteed, so use a small test area before widespread use.
Roses	Cluster caterpillar, lightbrown apple moth	200 mL/100 L water	Apply at first sign of pest activity and then as necessary. Spray to point of wetness. Some plant damage may occur with close interval spraying.
Elm trees in non-crop situations	Elm leaf beetle	200 mL/100 L water	Apply when pests appear and repeat as necessary.
Indian Sandalwood (<i>Santalum album</i>) plantations and sandalwood nurseries	Browsing insects, redshouldered leaf beetle	Apply at a maximum rate of 2.2 L/ha applied aerially or via ground based shrouded spray rigs	Use shrouds and directed spray nozzles where spraying occurs amongst the crop. DO NOT apply more than twice in any one year.

INDUSTRIAL AND EXTERNAL DOMESTIC AREAS

SITUATION	PEST	RATE	CRITICAL COMMENTS
Non-crop, commercial and industrial areas, rights of way	Wingless grasshoppers	160 mL/100 L water	Thoroughly spray infested areas as required. Apply by high volume ground spray using sufficient spray to get good coverage (220 to 1100 L/ha).
	Grasshoppers	1.1 to 1.4 L/100 L water	
	European earwig	80 mL/15 L water	Apply liberally to exterior surfaces of buildings, fences, wood piles, rockeries and other breeding areas. Repeat application 4 weeks later.
Industrial and external domestic areas	European earwig	80 mL/15 L water	Apply liberally to exterior surfaces of buildings, fences, wood piles, rockeries and other breeding areas. Repeat application 4 weeks later.
	Grasshoppers	1.1 to 1.4 L/100 L water	Apply by high volume ground equipment to control swarms. Use sufficient water for good coverage, usually 220 to 1100 L/ha.
	Vespid (European and English) wasps in concealed nests	130 to 320 mL per L water	Pour or squirt into entrance of underground nest, or spray semi-concealed nest. Apply preferably at night and wear protective clothing and veil to avoid stings.
	Honey bees in concealed hives	1.1 L/100 L water	Spray into nests in the open and in enclosed cavities where the nest is close to the entrance used by the bees. Destroy the nest if accessible. DO NOT use honeycomb – destroy or bury it. Apply preferably at night and wear protective clothing and veil to avoid stings.
Tobacco bulk sheds	Ants, European earwig, fleas, moths, tobacco beetle, weevils	200 mL/10 L water	Spray thoroughly surfaces to be treated. Five litres of spray should cover 100 m ² .

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

WITHHOLDING PERIODS (WHP)

HARVEST (H)

Coconut, Cucurbits, Feijoa, Grapes, Guavas, Jaboticaba, Jackfruit, Litchis, Longans, Loquats, Macadamia Nuts, Pecan Nuts, Rambutans, Strawberries: **WITHHOLDING PERIOD NOT REQUIRED WHEN USED AS DIRECTED**

Avocados, Beetroot, Cotton, Lemons, Oranges, Potato, Swede, Sweet Potato, Turnips: **DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION**

Mangoes, Raspberries: **DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION**

Cereal Grains: **DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION**

Stone Fruit: **DO NOT HARVEST FOR 5 WEEKS AFTER APPLICATION**

Pome Fruit: **DO NOT HARVEST FOR 11 WEEKS AFTER APPLICATION**

Kenaf and Rosella: **DO NOT USE ON KENAF OR ROSELLA CROPS THAT WILL BE USED FOR HUMAN CONSUMPTION**

GRAZING (G)

Cereal Grains: **DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER APPLICATION**

Field Crops, Pasture and Lucerne: **DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 7 DAYS AFTER APPLICATION**

LIVESTOCK FEEDING RESTRAINTS

Cotton: This product must not be used on cotton where cotton trash, fodder or stubble (excluding seed and hulls) will or may be fed to livestock. **DO NOT FEED COTTON FODDER, STUBBLE OR TRASH TO LIVESTOCK.**

GENERAL INSTRUCTIONS

Insecticide Resistance Warning

For insecticide resistance management Bugmaster Flowable Insecticide is a Group **1A** insecticide.

Some naturally occurring insect biotypes resistant to Bugmaster Flowable Insecticide and other Group **1A** insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Bugmaster Flowable Insecticide or other Group **1A** insecticides are used repeatedly. The effectiveness of Bugmaster Flowable Insecticide on resistant individuals could be significantly reduced. Since the occurrence of resistant individuals is difficult to detect prior to use, Tessenderlo Kerley, Inc. accepts no liability for any losses that may result from the failure of Bugmaster Flowable Insecticide to control resistant insects.

Bugmaster Flowable Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier, AgNova Technologies representative or local agricultural department agronomist.

Export of Treated Produce

Growers should note that MRLs or import tolerances do not exist in all markets for edible produce treated with Bugmaster. If you are growing edible produce for export, please check with AgNova Technologies Pty Ltd for the latest information on MRLs and import tolerances BEFORE using Bugmaster.

Mixing

Shake container before use. Fill tank half full of water, add Bugmaster Flowable and mix thoroughly, then add remainder of water and mix again. When using as a tank mix with spray oils, add the product AFTER thoroughly mixing the oil with water in the spray tank.

Application

Good pest control and fruit thinning (pome fruit) requires even, thorough coverage of the target area. Application should be made using appropriate spray equipment and sufficient water to provide adequate penetration and coverage. Equipment settings and water volume may need to vary, depending on the growth stage of the crop.

Do not apply under weather conditions, or from spraying equipment, which could be expected to cause spray to drift onto adjacent crops, crop lands, pastures or livestock.

Special Instructions for Tree and Vine Crops

Dilute Spraying

- Use a sprayer designed to apply high spray volumes, up to the point of run-off and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient spray volume to cover the crop to the point of run-off. Avoid excessive run-off.
- The required spray volume to achieve point of run-off may be determined by applying different test volumes, using different settings on the sprayer, or from industry guidelines or other expert advice.
- Add the amount of product specified in the Directions for Use table for each 100 L of water. Spray to the point of run-off.
- The required dilute spray volume to achieve point of run-off will change and the sprayer set up and operation may also need to be changed, as the crop grows.

Concentrate Spraying

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies spray volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen spray volume.
- Determine an appropriate dilute spray volume (see ***Dilute Spraying*** above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- The mixing rate for concentrate spraying can then be calculated in the following way:

EXAMPLE ONLY

1. Dilute spray volume as determined above: For example 1500 L/ha
2. Your chosen concentrate spray volume: For example 500 L/ha
3. The concentration factor in this example is: 3 x (i.e. $1500 \text{ L} \div 500 \text{ L} = 3$)
4. If the dilute label rate is 200 mL/100 L, then the concentrate rate becomes 3 x 200; that is 600 mL of product per 100 L water for concentrate spraying.

The chosen spray volume, amount of product per 100 L, and the sprayer set up and operation may need to be changed as the crop grows.

For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

Crop Safety

Several days of high humidity or rain after spraying may result in some damage to tender foliage.

Pome Fruit

DO NOT use on quinces.

DO NOT use on McIntosh and York varieties of apples.

DO NOT apply to Delicious and Williams Favourite apples before, during or shortly after frost as russet may occur.

DO NOT apply in combination with summer oil on apples and pears as fruit spotting may occur.

Applications may cause russet to Delicious and Williams Favourite when applied before, during or after frost.

Residues can affect colouring of red varieties.

Compatibility

This product may be combined in the spray vat with any one of the following products: copper oxychloride, dimethoate, Kelthane*, Rovral* Liquid, Spin* Flo, summer spray oil, wettable sulphur.

DO NOT mix with Lime Sulphur, Bordeaux mixture or other alkaline materials.

As formulations of other manufacturers' products are beyond the control of Tessengerlo Kerley, Inc., all mixtures should be tested prior to mixing commercial quantities.

PRECAUTIONS

Re-Entry Periods

Raspberries and Ornamentals

Do not allow entry into treated areas or re-handle treated plants by workers or members of the public for 8 days after treatment. When prior entry is required wear rubber gloves and cotton overalls buttoned to the neck and wrist. Clothing and gloves must be washed after each day's use.

Nursery Stock

Tree Crops in Containers

Do not allow entry into treated areas or re-handle treated plants for 1 day after treatment. When prior entry or re-handling is required wear rubber gloves and cotton overalls buttoned to the neck and wrist. Clothing and gloves must be washed after each day's use.

Cotton Crops

Do not allow entry into treated areas for 2 days after treatment. When prior entry is required wear rubber gloves and cotton overalls buttoned to the neck and wrist. Clothing and gloves must be washed after each day's use.

All Other Crops

Do not allow entry into treated areas for 1 day after treatment. When prior entry is required wear rubber gloves and cotton overalls buttoned to the neck and wrist. Clothing and gloves must be washed after each day's use.

PROTECTION OF LIVESTOCK

Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight.

Triple or preferably pressure rinse containers before recycling or disposal. Add rinsings to spray tank.

If recycling or returning for re-use, replace cap and return rinsed clean containers to recycler, designated collection or refilling point. If not recycling or returning for re-use, break, crush, or puncture rinsed container and deliver empty packaging for appropriate disposal to drumMuster, an approved recycling program or accredited waste management facility. Containers and their product must not be burnt. Do not re-use empty containers for any other purpose.

Do not dispose of undiluted chemicals on site. Excess and unwanted chemicals should be registered for collection through the national ChemClear® or equivalent collection and disposal program.

SAFETY DIRECTIONS

Product is poisonous if absorbed by skin contact or swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin.

When opening the container and preparing the spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat and elbow-length chemical resistant gloves. 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 and contaminated clothing. Avoid bare skin contact with treated surfaces for 7 days.

FIRST AID

If swallowed, splashed on skin or in eyes, or inhaled, contact a Poisons Information Centre (phone 13 11 26) or a doctor at once.

Remove any contaminated clothing and wash skin thoroughly. If swallowed, activated charcoal may be advised. Give atropine if instructed.

MATERIAL SAFETY DATA SHEET

For further information refer to the Material Safety Data Sheet (MSDS) available from AgNova Technologies Pty Ltd.

CONDITIONS OF SALE

AgNova Technologies Pty Ltd and Tessenderlo Kerley, Inc. shall not be liable for any consequential or other loss or damage relating to the supply or subsequent handling or use of this product, unless such liability by law cannot be lawfully excluded or limited. All warranties, conditions or rights implied by statute or other law which may be lawfully excluded are so excluded. Where the liability of AgNova Technologies Pty Ltd and Tessenderlo Kerley, Inc. for breach of any such statutory warranties and conditions cannot be lawfully excluded but may be limited to it re-supplying the product or an equivalent product or the cost of a product or an equivalent product, then the liability of AgNova Technologies Pty Ltd and Tessenderlo Kerley, Inc. for any breach of such statutory warranty or condition is so limited.

APVMA Approval No.: 40146/56719

Bugmaster® is a Registered Trademark of Tessenderlo Kerley, Inc.
*Rovral, Kelthane and Spin Flo are Registered Trademarks.

Manufactured for:

Tessenderlo Kerley, Inc.

2255 N. 44th Street, Suite 300
Phoenix, Arizona 85008 USA

Distributed by:

AgNova Technologies Pty Ltd

ABN 70 097 705 158
Suite 3, 935 Station Street
Box Hill North, Vic. 3129
Australia
Phone (03) 9899 8100
agnova.com.au

**In a transport emergency dial 000, Police or Fire Brigade.
For specialist advice in an emergency only, call 1800 033 111
(24 hours).**