

Product Name: Albaugh Binder Insecticide
APVMA Approval No.: 80901/141768



Label Name:	Albaugh Binder Insecticide
Signal Headings:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Constituent Statements:	Active Constituent: 100 g/L BIFENTHRIN Solvent: 763 g/L HYDROCARBON LIQUID
Mode of Action:	GROUP 3A INSECTICIDE
Statement of Claims:	For the control of Helicoverpa spp. in cotton, tomatoes, lucerne seed crops, navy beans; carpophilus beetle in stone fruit (except cherries); certain species of mites in bananas, cotton and tomatoes; longtailed mealy bug in pears; banana weevil borer and banana rust thrips in bananas; mirids in cotton; whitefly in tomatoes; redlegged earth mite, blue oat mite, bryobia mite, webworm and brown pasture looper in faba beans, subterranean clover, clover, canola, wheat, barley, field peas, lupins and lucerne; vegetable weevil in canola; and certain species of wireworms in cotton and sugarcane; fig longicorn in grapes and citrus leafeating weevil in citrus as per the Directions of Use.
Net Contents:	5, 10, 20 Litres
Restrains:	DO NOT use as a foliar spray in banana plantations and orchards where mite predators and other beneficials are established and providing effective mite control and/or pest control. DO NOT apply as a foliar treatment if rainfall is expected before spray deposits dry on leaf surfaces. DO NOT apply to bananas by aircraft.
Directions for Use:	This section contains file attachment.

Other Limitations:	
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Withholding Periods:	<p>Bananas: For Ground Applications - Do not harvest for 1 day after application. For Foliar Applications - Do not harvest for 8 days after application.</p> <p>Cotton: Do not harvest for 14 days after application. Do not graze or cut for stockfeed. Do not feed cotton trash to livestock.</p> <p>Pears: Do not harvest for 14 days after application.</p> <p>Navy Beans: Do not harvest, graze or cut for stock food for 14 days after application.</p> <p>Canola, Subterranean Clover, Clover, Field Peas, Faba Beans, Wheat, Barley, Lucerne and Lupins: Do not graze or cut for stock food for 4 weeks after application..</p> <p>Harvest WHP: Not required when used as directed.</p> <p>Citrus, Grapes, Sugarcane: Not required when used as directed.</p>
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Trade Advice:	<p>Stone Fruit Export Advice Export of Treated Stone Fruit - some export markets do not have suitable Maximum Residue Limits or import tolerances in place. Please contact Albaugh Asia Pacific Limited or Australian Fresh Stone Fruit Growers Association prior to using this product on crops destined for export.</p>
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General Instructions:	<p>GENERAL INSTRUCTIONS Albaugh Binder Insecticide is a contact and residual insecticide/miticide. It can be used as a protective treatment when applied at regular intervals or as a knockdown treatment to control existing pests. Best results are obtained when Albaugh Binder Insecticide is applied before pest populations build up to damaging levels. This product is not suitable for use in Integrated Pest Management (IPM) programs where mite or other insect predators or parasites are established and providing effective mite and other insect control.</p> <p>APPLICATION Albaugh Binder Insecticide may be applied by either ground rig or aircraft. Thorough coverage is essential to ensure adequate control. Do not apply as a fog or mist.</p> <p>Dilute Spraying:</p> <ul style="list-style-type: none"> - Use a sprayer designed to apply high volumes of water up to the point of run-off. - Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to point of run-off. Avoid excessive run-off. - The required water volume may be determined by applying different test volumes using different settings on the sprayer, from industry guidelines or expert advice. - Add the amount of product specified in the Directions for Use table for each 100L of water. Spray to the point of run-off.
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- The required dilute spray volume will change as 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 water 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 water 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:

i) Dilute spray volume as determined above: For example 1000L/ha.

ii) Your chosen concentrate spray volume: For example 500L/ha

iii) The concentration factor in this example is: 2X (i.e. $1000L \div 500L = 2$)

iv) If the dilute label rate is 50mL/100L, then the concentrate rate becomes 2X50, that is 100mL/100L of concentrate spray.

- The chosen spray volume, amount of product per 100L of water, 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.

Ground Application:

Applications should be made as a fine spray preferably using hollow cone nozzles and a droplet size of 150 to 200 microns. The application volume will depend on the type of crop to be treated. The following are suggested:

Low volume broad acre applications to - e.g. cereals, canola, grain legumes, lucerne, subterranean clover: 50-200L/ha.

Low volume row crops applications to cotton, tomatoes, navy beans: 50-200L/ha.

High volume applications to row crops - e.g. trellised tomatoes: 200-1000L/ha except as noted in critical comments. Use 200L/ha from transplanting increasing to 1000L/ha at maturity.

High volume directed spray:

Grapes: Apply by hand application, using a high volume coarse spray of 500mL/vine. (e.g. at approx. 2500 vines/ha=1250L/ha).

Foliar sprays to bananas: 300 to 500 L/ha.

High volume application to stone fruit: 1000 to 2000 L/ha.

Soil Applied Sprays:

High volume application:

Bananas:

Stool treatment: Apply as a coarse spray at 500-750mL per stool.

Band treatment: Apply as a band application with a side delivery boom and offset nozzles - 1L of spray solution per stool.

Citrus: Apply as a high volume, directed spray to the ground under each tree. For optimum control apply to both sides of the tree. Total spray volume should be 5 to 10L/tree (e.g. at 250 trees/ha = 1250 to 2500 L/ha).

In furrow applications:

Cotton & Sugarcane: Use a coarse spray: 60 to 100L/ha as a band over the seed or sett before covering with soil - refer to critical comments for details.

Aerial Application:

Use at least 20L/ha of total spray volume. Spray during the cooler parts of the day or night. To reduce possibility of drift avoid spraying in calm conditions or when wind is light and variable. Preferably, spray in a crosswind. Use suitable application equipment and/or nozzles to deliver a fine spray with a droplet size of 150 to 200 microns.

A spray drift minimisation strategy should be employed at all times when aurally applying sprays to, or near, sensitive areas. The strategy envisaged is best exemplified by the cotton industry's Best Management Practice manual.

Monitoring:

	<p>Post-emergence monitoring of Citrus leaf eating weevil populations: At first sign of major beetle emergence in mid October commence monitoring at 1 to 2 week intervals. Place polystyrene fruit box (330 x 480mm) under tree, shake branches vigorously, repeat on ten randomly selected trees throughout orchard. If 25 beetles or more are recorded in consecutive counts, treatment is required.</p> <p>Mixing: Add the required quantity of Albaugh Binder Insecticide to water in the spray tank and mix thoroughly. Maintain agitation during mixing and application.</p> <p>Surfactants: Albaugh Binder Insecticide contains a surfactant. Additional surfactant may only be necessary on hard to wet plants and high volume situations.</p>
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<p>Resistance Warning:</p>	<p>For insecticide resistance management Albaugh Binder Insecticide is a Group 3A insecticide. Some naturally occurring insect biotypes resistant to Albaugh Binder Insecticide and other Group 3A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Albaugh Binder Insecticide or other Group 3A insecticides are used repeatedly. The effectiveness of Albaugh Binder Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Albaugh Asia Pacific Limited accepts no liability for any losses that may result from the failure of Albaugh Binder Insecticide to control resistant insects. Albaugh Binder Insecticide may be subject to specific resistance management strategies. For further information contact your local supplier, Albaugh Asia Pacific Limited representative or local agricultural department agronomist.</p> <p>NOTICE: Helicoverpa (=Heliothis) armigera resistance in Northern NSA and Qld. To help contain pyrethroid resistance in H. armigera, the Summer Crop Insecticide strategy as developed by the Qld Department of Primary Industries and NSA Agriculture should be adhered to. Failure to observe the strategy may result in widespread resistance affecting the future viability of summer cropping.</p>
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<p>Precautions:</p>	<p>RE-ENTRY TO TREATED FIELDS/CROPS Do not re-enter treated field/crop until spray deposits have dried, unless wearing suitable protective clothing (i.e. waterproof hat, overalls, boots and gloves).</p>
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<p>Protections:</p>	<p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT: Dangerous to fish and aquatic organisms. DO NOT contaminate dams, rivers, streams, waterways or drains with this product or the used container. Tail drains which flow from treated areas should be prevented from entering river systems.</p> <p>PROTECTION OF LIVESTOCK: Dangerous to bees. DO NOT spray any plants in flower when bees are foraging. Spray in the early morning when bees are not actively foraging.</p>
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<p>Storage and Disposal:</p>	<p>Store in the closed, original container in a cool, well-ventilated area. DO NOT store for prolonged periods in direct sunlight.</p> <p>Triple rinse containers before disposal. Add rinsings to spray tank. Do NOT dispose of undiluted chemicals on-site.</p> <p>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 for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500mm 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 and product.</p>
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Safety Directions:	Poisonous if swallowed. Will damage eyes. Will irritate the nose, throat and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.
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First Aid Instructions:	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.
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First Aid Warnings:	
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Directions for Use

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
Bananas	Banana weevil borer (<i>Cosmopolites sordidus</i>) Banana rust thrips (<i>Chaetanaphothrips signipennis</i>)	QLD, NSW, WA, NT only	<u>Seasonal Program</u> <u>Stool Treatment Method</u> 250-330mL/100L twice per year or 660mL/100L once per year <u>Band Treatment Method</u> 250mL/100L twice per year <u>Monitoring Program</u> <u>Stool Treatment Method</u> 330mL/100L <u>Band Treatment Method</u> 250mL/100L	1 day	<u>Seasonal Program</u> Twice per year timing – Apply in October/November (spring/early summer) and March/April (late summer/autumn). Use the higher rate (concentration) when borer pressure or damage is high. Once per year timing – Apply in October/November OR March/April. <u>Monitoring Program</u> Monitor weevil borer populations carefully by trap counts and/or corm damage ratings, beginning in September when pest activity is on the increase and continue until April. Apply treatment when banana weevil borers reach or exceed acceptable threshold levels. Monitor borer control after application and re-treat as required. Banana Weevil borer: Application should be made after rain or irrigation during periods of high adult borer activity. Banana rust thrips: Application against banana weevil borer will give coincident rust thrips control, particularly when application is made when thrips activity is on the increase usually beginning September and into the summer months. Application Method <u>Stool Treatment Application</u> – Remove trash from the base of stools and apply 500 – 700 mL of spray solution to each stool, depending on the stool size. Treat the bottom 30cm of each stool as well as the soil in a 30cm band around each stool, ensuring thorough treatment of both butt(s) and follower(s). Use the lower spray volume of 500mL on small stools less than 50cm across from the entire base. <u>Band Treatment Application</u> – Apply as a band application with a side delivery boom and offset nozzles on both sides of the row with the spray pattern positioned to spray 30cm of soil on either side of the row and 30cm in height. Aim to apply a total spray of 1L/stool area. For single sucker row configurations apply 28L of solution per 100 metres of row in a band 0.5m wide on each side of the row overlapping in the centre. For double sucker row configurations apply 56L of solution per 100 metres of row in a band 1m wide on each side of the double row with the spray pattern overlapping between the rows.
Bananas	Strawberry spider mite (<i>Tetranychus lambi</i>)	QLD & WA only	40mL/100mL	8 days	Monitor mite population on old leaves particularly during hot dry conditions. Apply Albaugh Binder Insecticide as a preventative rather than a curative treatment before damage occurs, and before mite numbers build up to damaging levels. Follow up applications may be required at 10-14 day intervals.

Directions for Use

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
					Thorough coverage of the lower leaf surface is essential to ensure good control. Use a total spray volume of 300-500 L/ha.
Cotton	Native budworm (<i>Helicoverpa punctigera</i>) Cotton bollworm (<i>Helicoverpa armigera</i>) Two spotted mite (<i>Tetranychus urticae</i>) Green mired (<i>Creontiades dilutus</i>) Apple dimpling bug (<i>Campylomma Liebkechti</i>)	QLD, NSW, WA only	600-800 mL/ha	14 days DO NOT GRAZE OR CUT FOR STOCK FEED DO NOT FEED COTTON TRASH TO LIVE STOCK	Apply as indicated by field checks. Use the higher rate when pest pressure is high, conditions favour pest development and when increased residual protection required. Budworm and Bollworm: Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present. Do not apply this product to <i>Helicoverpa (=Heliothis) armigera</i> larvae larger than 5mm in length. Two spotted mite: Applications against <i>Helicoverpa</i> spp will give good control of coincident two spotted mite, particularly when applied on low mite populations (around 10% leaf infestation). If conditions continue to favour mite development a second application may be required 14-20 days later. Green mirid & Apple dimpling bug: Apply at recommended threshold levels as indicated by field checks. Use the higher rate for increased pest pressure and longer residual protection.
	False wireworm (<i>Pterohlaeus alternatus</i>) Sugarcane wireworm (<i>Agrypnus variabilis</i>)		375 mL/ha* or 3.8mL/100m of row	Wireworms: Apply as a spray into the furrow at planting. Use a spray nozzle which will deliver a coarse spray in a total volume of 60 – 100 L/ha in a 10cm band over the seed before soil is brought in behind covering tyres in front of the press wheel. *The rate is based on a 1m row spacing. If row spacing varies from 1m then apply at the use rate according to mL/100m of row.	
Canola, Faba beans, Subterranean clover, Clover, Barley, Field peas, Lupins, Lucerne, Wheat	Redlegged earth mite (<i>Halotydeus destructor</i>) Brown pasture looper (<i>Ciampa arietaria</i>)	All States	50-100 mL/ha	4 weeks (grazing)	Apply as broadcast ground rig application in a total water volume of 50-200L/ha or by air in a minimum total water volume of 20L/ha. Apply to bare soil after conventional cultivation and sowing or onto well grazed or sprayed pasture after direct drilling. Treat infested paddocks after sowing and before or soon after seedling emergence. Use the higher rate on heavier infestations and for longer residual protection. Albaugh Binder Insecticide is compatible with some herbicides. See Compatibility statement for details.
	Blue oat mite (<i>Penthaleus major</i>) Pasture webworm (<i>Hednota</i> spp.)		100 mL/ha		
	Bryobia mites (<i>Bryobia</i> spp.)		200 mL/ha		
Canola	Vegetable weevil (<i>Listroderes difficilis</i>)	All States	100-200 mL/ha	4 weeks (grazing)	Use the 100mL rate when pest pressure is low. Monitor adjacent habitat and edges of the field for the presence of vegetable weevil prior to making a decision whether to spray.
Peaches, Nectarines, Plums, Apricots	Carpophilus beetles (<i>Carpophilus</i> spp.)	All States	Dilute spraying 50mL/100L Concentrate spraying Refer to the mixing /application	1 day	Monitor stone fruit orchards for Carpophilus beetle as fruit approach maturity and become susceptible to attack. Apply Albaugh Binder Insecticide as a dilute spray before beetles reach damaging levels. Apply to the foliage and fruit of trees. Continue to monitor beetle numbers and if necessary reapply Albaugh Binder Insecticide up to 1 day before harvest or

Directions for Use

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			section		use another insecticide registered for this purpose. Apply no more than 2 applications per season. There must be a minimum of 10 days between the re-treatment and the initial application. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Do not use at rates greater than 100mL per 100L water when using concentrate spraying. Cultural methods (e.g. destruction of fallen fruit by mulching) should be used to prevent excessive build up of <i>Carpophilus</i> beetle.
Citrus	Leafeating weevil (<i>Eutinophaea bicristata</i>)	All States	Pre-emergence program 12.5 or 25mL/tree Post-emergence monitoring program 6mL/tree	-	Apply as a high volume band application in a 1.5 to 2 metres wide swath, to the ground, sides of the row, under each tree. Aim to apply a total spray volume of 5 to 10L/tree (e.g. at 250 trees/ha=1250 to 2500L/ha). Pre-emergence program: Apply just prior to, or at the first sign of major beetle emergence in mid-October. Use the higher rate in blocks with a history of high beetle numbers or when longer residual control is required. Post-emergence monitoring program: Apply at peak beetle emergence in October/November as indicated by field monitoring. (Refer to monitoring statement on label). Follow up treatment may be necessary based on a threshold of 25 beetles per 10 sites per orchard in consecutive counts 1-2 weeks apart.
Grapes	Fig longicorn (<i>Acalolepta vastator</i>)	NSW, ACT & WA only	1000mL/100L	-	The application MUST be made at late dormancy after pruning and before bud burst. Apply a single high volume spray, with nozzles directing the spray solution to the trunk and cordons (arms) of grape vines to achieve thorough wetting of the bark. Total spray volume should be about 500mL/vine achieved by hand application.
Lucerne seed crops	Native budworm (<i>Helicoverpa punctigera</i>)	All States	400-600 mL/ha	-	Do not treat lucerne seed crops for alfalfa sprout production. Apply as indicated by field checks after the commencement of flowering. Use the higher rate when pest pressure is high, conditions favour pest development and when increased residual protection is required. Native Budworm: Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present.
Navy beans	Native budworm (<i>Helicoverpa punctigera</i>) Corn earworm (<i>Helicoverpa armigera</i>)	All States	600-800 mL/ha	14 days (harvest and grazing)	Apply as indicated by field checks from flowering onwards. Use the higher rate when pest pressure is high, conditions favour pest development and when increased residual protection is required. Budworm and Earworm: Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present. Do not apply this product to <i>Helicoverpa</i> (= <i>Heliopsis</i>) <i>armigera</i> larvae larger than 5mm in length.
Pears	Longtailed mealy bug	VIC & WA	25mL/100L plus Caltex DC Tron	14 days	Examine wood for the presence of overwintering longtailed mealy bugs but do not

Directions for Use

CROP	PEST	STATE	RATE	WHP	CRITICAL COMMENTS
	<i>(Pseudococcus longispinus)</i>	only	at 1L/100L		spray until larger numbers of young nymphs emerge in spring. Apply this mixture to near the point of runoff to all above ground parts of the tree between green tip to commencement of flowering. Do not spray after flowering has commenced.
Sugarcane	Sugarcane wireworm <i>(Agrypnus spp.)</i>	QLD, NSW & WA only	375mL/ha* or 5.6mL/100m of row	-	Apply as a spray into the furrow at planting. Use a spray nozzle which will deliver a coarse spray in a total volume of 60-100L/ha in a band 20-30cm wide over the base of the furrow on top of the setts and before covering soil is brought in by tynes. *The rate is based on a 1.5m row spacing. If row spacing varies from 1.5m then apply at the use rate according to mL/100m of row.
Tomatoes	Native budworm <i>(Helicoverpa punctigera)</i> Corn earworm <i>(Helicoverpa armigera)</i> Two spotted mite <i>(Tetranychus urticae)</i> Tomato russet mite <i>(Aculops lycopersici)</i> Whitefly <i>(Trialeurodes vaporariorum)</i>	All States	High Volume 40-60mL/100L or Low Volume 600mL/ha 30mL/100L water	1 day	Do not use low volume ground or air application on trellis tomatoes. Crop Monitoring Program Helicoverpa spp: Apply as indicated by field checks. Applications should be timed to coincide with egg hatch and when small larvae up to 5mm are present. Do not apply this product to <i>Helicoverpa (=Heliothis) armigera</i> larvae larger than 5mm in length. Mites: Applications against <i>Helicoverpa</i> spp will give good control of coincident mites, particularly when applied on low mite populations. If conditions continue to favour mite development, a second application may be required 14-20 days later. Schedule Spray Program If fields are not checked during pest infestations periods, apply on a 7-10 day alternating program with a non pyrethroid insecticide. Use the higher rate (high volume application) and shorter interval when pest infestation is more severe and when increased residual protection is required. Do not apply this product to <i>Helicoverpa armigera</i> larvae larger than 5mm in length. Apply as indicated by pest incidence and repeat as necessary. Use a total spray volume of 2500 L/ha.

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