

# POISON

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

TITAN

# ABAMECTIN 18 INSECTICIDE/MITICIDE

ACTIVE CONSTITUENT: 18g/L ABAMECTIN  
SOLVENTS: 481g/L HYDROCARBON LIQUID  
150g/L DIETHYLENE GLYCOL MONOBUTYL ETHER  
100g/L N-METHYL-2-PYRROLIDONE

GROUP **6** INSECTICIDE

For the control of certain mites on cotton, citrus, apples, capsicums, hops, pears, tomatoes, mushrooms, ornamentals, strawberries, blackcurrants, rhubarb, blackberries, raspberries, blueberries, cucumber, squash and zucchini, spring onions, shallots, snow peas and sugar snap peas, sweet corn, fruiting vegetables excluding cucurbits, lettuce and Native Budworm on cotton and other situations as specified in the Directions For Use table.

APVMA Approval No.: 65889/145735

Pack Size: 5L-1000L



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<b>EC</b>	Formulation Type <b>Emulsifiable Concentrate</b>
<b>IN A TRANSPORT EMERGENCY</b> • DIAL 000 • POLICE OR FIRE BRIGADE	
	UN 2902 PESTICIDE, LIQUID, TOXIC, N.O.S. (Abamectin (combination of avermectin B1a and avermectin B1b) (ISO)), ENVIRONMENTALLY HAZARDOUS PG III HAZCHEM 2X

## DIRECTIONS FOR USE

### Restraints:

DO NOT use if rainfall is expected before spray has dried as reduced efficacy may result.  
DO NOT overhead irrigate within 24 hours of application.

### SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at [apvma.gov.au/spraydrift](http://apvma.gov.au/spraydrift)

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings 1 to 2 hours before sunset and persist until 1 to 2 hours after sunrise.

SITUATION	PEST	RATE	WHP (days)	CRITICAL COMMENTS
Apples, Pears	Two-spotted Mite, European Red Mite	750mL/ha plus 5L/ha summer oil (see General Instructions for mixing rates)	14 (G, H)	<p>For best results, apply the product using dilute application (spraying to point of run-off). If applying with concentrate applications efficacy may be compromised.</p> <p>DO NOT apply at more than 2 times concentrate (i.e. half the dilute water volume). Apply the same amount of TITAN Abamectin 18 Insecticide/Miticide to the target crop whether by spraying by dilute or concentrate spraying methods. DO NOT apply this product either before or after applications of Delan or Captan.</p> <p>In Apples, apply this product from 2 to 6 weeks after petal fall if monitoring shows high numbers of over wintering European Red Mite eggs are present or if mites are a problem early in the season. In Pears, timing is not as critical and the application should be made as soon as possible after mite numbers have reached a threshold for your area. Maximum mite control is usually reached at 7 days. Moderate to high mite populations will be controlled, but if there are no predatory mites present retreatment with another miticide (from another chemical group) may be necessary.</p> <p><b>Integrated Pest Control:</b> The effects of Abamectin on parasitic wasps and other beneficial pests in Australian orchards are not known. Studies have shown that after application of Abamectin, predatory mite populations may not increase for a number of weeks due to lack of suitable pest mite prey. Predatory mite numbers will increase with any pest mite numbers allowing the continuation of biological mite control. DO NOT use in IPM programs unless the pest mite threshold has been reached and predators are unlikely to achieve effective control.</p>
Citrus	Broad Mite, Brown Citrus Rust Mite, Citrus Rust Mite	<p>Apply by dilute or concentrate spraying equipment.</p> <p><b>Dilute spray:</b> 15mL/100L or 25mL/100L plus 250mL/100L summer oil</p> <p><b>Concentrate spray:</b> Refer to application section – Citrus</p> <p>Apply as a dilute spray in 3000 to 6000L water/ha as pest pressure indicates.</p>	7 (H)	<p>Apply the same amount of TITAN Abamectin 18 Insecticide/Miticide to the target crop whether by spraying by dilute or concentrate spraying methods. Use the higher rate when the pest pressure is high.</p> <p>DO NOT apply more than once per season.</p>
	Queensland Fruit Fly (QFF)	25mL/100L		<p>Apply in a spray volume of 15-20L/ha in combination with suitable protein based lure product. Apply treatment when fruit fly activity is initially observed, as determined by regular monitoring and fruit fly trapping. Apply as a coarse spray in a 1m wide band spray to tree skirt using a spray gun, knapsack sprayer or equivalent. Apply to one side of every row or every second row of trees. Apply a maximum of 6 applications in a season with a minimum retreatment interval of 7 days. Abamectin should be used in conjunction with other registered QFF control methods.</p>
Citrus (bare-rooted and potted nursery stock only)	Citrus Red Mite	25mL/100L plus either 30mL clofentezine (500g/L) product/100L or 5mL amitraz (200g/L) product/100L	7 (H)	<p>Apply as a two minute dip for budwood and thoroughly treat with a drenching spray or dip to all the above ground parts of bare-rooted or potted plants.</p>

SITUATION	PEST	RATE	WHP (days)	CRITICAL COMMENTS
Cotton (QLD, NSW, WA only)	Carmine Mite, Two-spotted Mite	300mL/ha	20 (G, H)	DO NOT make more than 2 applications to Cotton per season, regardless of pest being controlled. To ensure adequate control: 1. Apply when the threshold number of mites has been reached for your region. 2. Apply when mite populations are low. If the mite population is too high at the time of application satisfactory control may not be achieved. Under high pest pressure a second application may be required 7-10 days after the initial application. Thorough coverage is essential.
	Native Budworm	300 or 600mL/ha	20 (G, H)	DO NOT make more than 2 applications to Cotton per season, regardless of pest being controlled. Use only when Lepton kit results indicate that no greater than 10% <i>Helicoverpa armigera</i> are present. Use the higher rate alone or the lower rate with a suitable mixing partner. Applications should target brown eggs and newly emerged larvae (neonates). Mixed larval populations should be avoided.
Hops	Two-spotted Mite	1L/ha	28 (G, H)	Apply as a dilute spray in 1000 to 2000L water/ha (depending on crop size) as pest pressure indicates. DO NOT apply more than once per season.
Strawberries	Two-spotted Mite	100mL/100L If spray volume is less than 600L/ha, use a minimum of 600mL/ha DO NOT exceed 1200mL/ha	3 (G, H)	Spray to wet all foliage to near the point of run-off. Ensure thorough coverage and penetration into plants. Best results are obtained if application is made at the first sign of mite appearance. When applied at this time, one application may give good control. If mite numbers exceed 3-5 mites per leaflet, apply 2 applications 7-10 days apart. Re-apply if required, but apply a maximum of 2 sprays of this product per season. If further treatment is required, apply a product from a different chemical group. <b>Integrated Pest Control:</b> See instructions in Apples and Pears section above. Refer to notes on resistance under General Instructions section of this label.
Ornamentals including Roses, Chrysanthemums, Carnations and indoor foliage plants	Two-spotted Mite	50mL/100L to a maximum of 1.5L/ha Abamectin per application	DO NOT GRAZE OR CUT FOR STOCK FOOD	Spray to wet foliage to the point of run-off using at least 2000L water/ha (100L/500m <sup>2</sup> ). Thorough coverage and penetration into plants is essential. Preferably apply on first appearance of mites. When applied when pest numbers are low to moderate, 1 application will be sufficient to give effective control, however if mites are numerous, apply a second application 7-10 days later. DO NOT use overhead irrigation within 24 hours of application. DO NOT use on Ferns or Shasta. For ornamentals not listed on this label, small test applications to test unexpected phytotoxicity should be made before spraying the whole crop. DO NOT use more than 2 times per season. Refer to notes on resistance under General Instructions section of this label.
Soybeans	Two-spotted Mite	300mL/ha	28 (G, H)	Apply to actively growing crops. Thorough coverage is essential. Monitor crops regularly and apply as soon as there are 10 mites per leaf. Best results will be obtained when applied to low mite populations. Application to high populations may not give satisfactory control. Under these conditions a second application 7-10 days later may be needed. DO NOT apply more than 2 sprays per season.
Mushrooms	Red Pepper Mite, Mushroom Pygmy Mite, Soil borne nematodes of the family Rhabditidae	6mL/50L of casing material 3mL in 1.5L of water/m <sup>2</sup> of growing medium	3 (H)	Apply when pests first appear using a water cart or knapsack spray. Repeat depending upon infestation. Apply as a casing drench or if in crop over beds. DO NOT make more than 2 applications per crop with a minimum retreatment interval of 14 days. Application of Abamectin should be made at casing material preparation stage or 2 applications watered onto casing layer as split applications. Include cultural control methods as part of an IPM strategy in addition to chemical control.
Rhubarb	Broad Mite	300 or 450mL/ha or 60-90mL/100L	7 (H) DO NOT GRAZE OR CUT FOR STOCK FOOD	Apply using an airblast sprayer or boom sprayer. The water rate may need to increase as the crop size increases. Mature crops may require 500L/ha and the rate per 100L should be used. DO NOT make more than 2 applications per season with a minimum retreatment interval of 14 days. Abamectin (Group 6) should not be applied in 2 consecutive crops without alternating with miticides from different chemical groups.

SITUATION	PEST	RATE	WHP (days)	CRITICAL COMMENTS	
Blackcurrants	Two-spotted Mite	300 or 450mL/ha or 60-90mL/100L	21 (H)	Apply using spray volume of 1000L/ha. Spray to point of run-off. DO NOT exceed 1200L/ha. When applying 60-90mL/100L application, do NOT exceed 500L/ha spray volume. DO NOT make more than 1 application per season. Apply when mites appear before numbers exceed 3 mites/leaf. Apply using high volume ground spray application using an airblast sprayer. DO NOT use in an IPM program unless the pest mite threshold has been reached and predatory mites are unlikely to provide effective control.	
Blackberries, Raspberries	Two-spotted Mite	300 or 450mL/ha or 60-90mL/100L	7 (H)	Apply using ground application equipment (boom spray/knapsack) to the point of run-off. Ensure thorough coverage by increasing water volume in accordance with crop growth. Thorough coverage and penetration into bushes is essential. When applying 60-90mL/100L application, do NOT exceed 500L/ha spray volume. DO NOT use more than 2 applications per crop, with a minimum retreatment interval of 28 days between consecutive applications. Apply in accordance with the Two-spotted Mite Resistance Management Strategy.	
Blackberries, Raspberries, Blueberries	Queensland Fruit Fly (QFF)	<b>Spot Treatment:</b> To prepare diluent, add 25mL product/100L plus yeast autolysate. To be applied at 125 spots/ha, with 20mL diluent applied per spot. <b>Strip Spray Treatment:</b> To prepare diluent, add 25mL product/100L plus yeast autolysate. To be applied at 15L diluent/ha	7 (H)	Apply with ground equipment (spray gun, knapsack sprayer or equivalent) only. Direct spray towards the base of bushes where fruit bearing is sparse. Apply on a weekly basis starting from a month prior to harvest (i.e. green berry stage) through to the end of the berry harvest. Add yeast autolysate as an attractant at the recommended label rate. Allow approximately 7 days between consecutive spray applications. DO NOT make more than 12 applications to any fruit crop in any one season. DO NOT apply when conditions are unsuitable for water based sprays (i.e. high temperatures, strong winds, inversion conditions, imminent rain). Apply no more than 4 sequential spray applications of Abamectin before switching to another registered fruit fly insecticide from another chemical group for at least 2 applications. Abamectin only has contact residual activity against QFF (i.e. has no systemic action).	
Cucumber, Squash, Zucchini	Two-spotted Mite, Tomato Red Spider Mite	300-450mL/ha	3 (G, H)	Apply with a properly calibrated boom sprayer (or equivalent) in sufficient volume to penetrate the plant canopy and evenly cover the plant surfaces. Apply before pest populations reach economic damaging levels. Re-apply if monitoring shows moderate numbers of pest mites re-infest plants. Allow at least 28 days between applications. DO NOT make more than 2 applications per crop. Abamectin should not be applied in 2 consecutive seasons without a chemical from a different MOA group being used in between.	
Spring Onions, Shallots (field only)			3 (H)		
Snow Peas, Sugar Snap Peas			1 (H); 2 (G)		
Sweet Corn (field only)			21 (G, H)		
Fruiting vegetables other than Cucurbits including Tomatoes, Peppers (sweet and chilli), Eggplant	Two-spotted Mite, Tomato Red Spider Mite	300-450 mL/ha (high volume spraying 60mL/100L or 90mL/100L)	3 (G, H)	Thorough coverage and penetration into the plant canopy is essential. Preferably apply before the build-up of mite numbers. Use higher rate in situations of greater pest pressure (in Tomatoes this is when mite numbers exceed 5-6 mites per compound leaf). Re-apply when pest numbers indicate. For staked/trellised Tomatoes use high volume spraying. For non-trellised/staked Tomatoes use droppers to direct the spray onto plants and away from the inter-row. Alternate with other chemical groups. Allow at least 28 days between applications. DO NOT use more than 2 applications per crop. DO NOT apply more than 2 consecutive sprays before changing to an approved insecticide from a different chemical group. Refer to notes on resistance under General Instructions section of label.	
	Tomato Russet Mite	300-450 mL/ha (high volume spraying 60mL/100L or 90mL/100L)			Apply as for Two-spotted Mite. The lower rate will control Tomato Russet Mite not apparent at spraying. Use the higher rate when Tomato Russet Mite is present at spraying or is the main pest.
	Tomato Potato Psyllid	450mL/ha plus 500mL summer spray oil (or 90mL/100L)			Thorough coverage and penetration into the plant canopy is essential. Preferably apply before the build-up of pest numbers. Re-apply when pest numbers indicate. Alternate with other chemical groups. Allow at least 28 days between applications. DO NOT use more than 2 applications per crop. Refer to notes on resistance under General Instructions section of label.

SITUATION	PEST	RATE	WHP (days)	CRITICAL COMMENTS
Fruiting vegetables other than Cucurbits including Tomatoes, Peppers (sweet and chilli), Eggplant – <i>continued</i>	Tobacco Leafminer (Potato Moth)	600mL/ha (for high volume spraying use 120mL/100L)	3 (G, H)	Apply in sufficient volume to obtain even coverage and penetration of plants. Apply on the first sign of pests. Re-apply as pest numbers indicate, or every 7-10 days with a maximum of 5 applications to the crop. If mites are also a problem, do NOT use more than 2 Abamectin sprays per crop. Refer to notes on resistance under General Instructions section of label.
Lettuce	Two-spotted Mite	300-450mL/ha or 60-90mL/100L water	3 (H)	Apply sufficient volume for even coverage and adequate spray penetration of plants using a knapsack or boom spray. Use the higher rate for high pest pressure. DO NOT apply more than 1 application per crop to avoid potential development of resistance. Where more frequent control of Two-spotted Mite is required, other approved chemicals with a different MOA Group should be rotated to avoid resistance development.
Avocados	Tea Red Spider Mite	37.5mL/100L water with 500mL summer oil per 100L water	14 (H) DO NOT GRAZE OR CUT TREATED AREA FOR STOCK FOOD	Apply at the first signs of infestation and before severe infestation. For good control apply in early spring. Apply by foliar application with ground equipment only (airblast or equivalent). Spray in sufficient volume to ensure thorough coverage. Apply in the range of 1000-1500L/ha. DO NOT make more than 2 applications per crop. Applications should be made 14-28 days apart. Apply in accordance with the Resistance Management Strategy. To avoid resistance build up, the product should be rotated with other approved miticides and insecticides from different chemical groups.
Papaya/Pawpaw	Two-spotted Mite	300 or 450mL/ha or 60-90mL/100L	7 (H) DO NOT GRAZE OR CUT TREATED AREA FOR STOCK FOOD	Apply when pest first appears. Ensure adequate spray penetration to obtain effective control of pest. DO NOT make more than 1 application per season. To avoid resistance, sprays should be rotated with products from different chemical groups.
Custard Apple	Two-spotted Mite, Banana Spotted Mite	60-90mL/100L or 300-450mL/ha	14 (H) DO NOT GRAZE OR CUT TREATED AREA FOR STOCK FOOD	Apply when mites first appear during spring/summer. Best results are obtained when applied to low pest populations. Apply by airblast sprayer or equivalent using a sufficient water volume to obtain thorough coverage. Thorough coverage is essential to achieve effective control. DO NOT make more than 1 application per season.
Passionfruit	Passionvine Mite, Two-spotted Mite	50mL/100L water	1 (H) Not required when used as directed (G)	Apply with a properly calibrated boom sprayer or similar equipment in sufficient volume to penetrate the plant canopy and evenly cover the plant surfaces. Apply in the range of 1200-1500L/ha. Apply before pest populations reach economic damaging levels. If conditions continue to favour mite development, a second application may be required 14-20 days later. DO NOT apply more than 2 sprays per season. To avoid resistance build up, the product should be rotated with other approved miticides and insecticides from different chemical groups.
Lychees	Two-spotted Mite, Litchi Erinose Mite	50-100mL/100L water	7 (H)	Apply foliar spray when mites first appear during spring/summer. Use calibrated air-blast sprayer or similar equipment. Apply in spray volume of 1000 to 1500L water per hectare. Thorough coverage of foliage is essential to achieve effective control. Apply a maximum of 2 foliar applications per season, with a minimum re-treatment interval of 28 days. <b>Add wetter:</b> 0.2% horticultural spray oil (i.e. 200mL product/100L). Use in accordance with existing insecticide resistance management strategies.
Adzuki Beans, Mung Beans, Navy Beans	Two-spotted Mite, Bean or Onion Thrips	300mL/ha	28 (G, H)	Monitor crops regularly and apply as soon as threshold mite or thrips numbers have been reached. Best results will be achieved when spray is applied to low mite or thrips populations. Application to high populations may not give satisfactory control. Thorough coverage of foliage is essential. For aerial spraying, apply in a minimum water volume of 20L/ha. Preferably use aircraft fitted with Micronair equipment using settings to produce a medium droplet size. For ground application, apply using a boom spray with inter-row droppers in a minimum water volume of 100L/ha. Apply a maximum 2 foliar applications per crop, with a minimum retreatment interval of 7-10 days between applications.
Duboisia	Red Spider Mite	750mL/ha plus 5L/ha of summer oil	<b>Grazing:</b> DO NOT graze plantations or cut grass for stock food	Apply to point of run-off. Thorough coverage is essential. Monitor crops regularly and apply as soon as the threshold mite number for your area has been reached. Best results will be obtained when applied to low mite populations. Application under high populations may not give satisfactory control, in this case a second application 7-10 days later may be needed.

SITUATION	PEST	RATE	WHP (days)	CRITICAL COMMENTS
Oil Tea Tree	Pyrgo Beetle	300mL/ha	21 (G)	Apply to coppice regrowth. Apply as a foliar spray by ground or aerial application. Use a spray volume of 30-100L/ha. DO NOT apply more than 2 applications per crop. For resistance management alternate with products from different mode of action groups.
Nursery stock (non-food)	Tomato Potato Psyllid	450mL/ha plus 500mL summer spray oil or 90mL/100L	Not required when used as directed (G)	Thorough coverage and penetration into the plant canopy is essential. Apply before pest populations reach economic damaging levels. Re-apply if monitoring shows moderate numbers of pests re-infest plants. DO NOT make more than 2 applications per crop. Allow at least 7 days between applications. DO NOT apply more than 2 consecutive sprays before changing to an approved insecticide from a different chemical group.
Cut flowers	Tomato Potato Psyllid	90mL/100L water or 450mL/ha	–	Use as a pre-harvest spray or post-harvest dip. Ensure adequate penetration and coverage when applying pre-harvest. For dipping, flowers must be totally immersed in the diluted solution for not less than one minute and left to air dry naturally for two hours.

G = Grazing, H = Harvest

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

**To Avoid Crop Damage**

**Cut flowers:** This product has been used on a wide range of ornamental plant species without damage. However some species and varieties are particularly sensitive to chemical sprays and this is often related to local conditions. It is advisable to treat only a small number of plants first, in order to ascertain their reaction before treating larger quantities.

**TRADE ADVICE**

**Export of Treated Produce:** Growers should note that maximum residue limits (MRLs) or import tolerances may not exist in all markets for all edible produce treated with Abamectin. If you are growing edible produce for export, please check with TITAN AG Pty Ltd for the latest information on MRLs and import tolerances before using Abamectin.

**WITHHOLDING PERIODS:**

**Harvest**

**Adzuki Beans, Mung Beans, Navy Beans, Soybeans, Hops: DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION.**

**Apples, Avocado, Custard Apple, Pears: DO NOT HARVEST FOR 14 DAYS AFTER APPLICATION.**

**Blackcurrants, Sweet Corn: DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION.**

**Blackberries, Blueberries, Citrus, Lychees, Papaya/Pawpaw, Raspberries, Rhubarb: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION.**

**Cotton: DO NOT HARVEST FOR 20 DAYS AFTER APPLICATION.**

**Cucumber, Fruiting Vegetables (other than Cucurbits), Mushrooms, Squash, Zucchini, Spring Onion, Shallots, Lettuce, Strawberries: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION.**

**Nursery Stock: NOT REQUIRED WHEN USED AS DIRECTED.**

**Passionfruit, Snowpeas, Sugar Snap Peas: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION.**

**Grazing**

**Adzuki Beans, Mung Beans, Navy Beans, Soybeans: DO NOT GRAZE FOR 4 WEEKS AFTER APPLICATION.**

**Apples, Pears: DO NOT FEED TREATED PRODUCE TO LIVESTOCK FOR 14 DAYS AFTER APPLICATION.**

**Avocado, Custard Apple, Papaya/Pawpaw: DO NOT GRAZE OR CUT TREATED AREA FOR STOCK FOOD.**

**Cotton: DO NOT GRAZE OR CUT FOR STOCK FEED FOR 20 DAYS AFTER APPLICATION.**

**Cucumber, Fruiting Vegetables (other than Cucurbits), Squash, Zucchini, Strawberries: DO NOT FEED TREATED PRODUCE TO LIVESTOCK FOR 3 DAYS AFTER APPLICATION.**

**Duboisia: DO NOT GRAZE PLANTATIONS OR CUT GRASS FOR STOCK FOOD.**

**Hops: DO NOT GRAZE OR CUT FOR 4 WEEKS AFTER APPLICATION.**

**Nursery Stock, Passionfruit: NOT REQUIRED WHEN USED AS DIRECTED.**

**Oil Tea Tree, Sweet Corn: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 21 DAYS AFTER APPLICATION.**

**Ornamentals, Rhubarb: DO NOT CUT OR GRAZE FOR STOCK FOOD.**

**Snowpeas, Sugar Snap Peas: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 2 DAYS AFTER APPLICATION.**

## GENERAL INSTRUCTIONS

This product is not systemic but quickly moves into leaves following application. It is important that thorough coverage is achieved so that the maximum amount of product can be deposited on the leaf surface for uptake and subsequent ingestion by sucking mites. Product that is not absorbed by leaves is quickly degraded.

### Resistance

It is known that early development of mite resistance may occur if one particular miticide and miticides from one particular chemical group are continually used. For this reason it is recommended that this product be applied no more than twice in one season and preferably only once per season. A second application is only recommended where mite pressure is very high. It is also recommended to alternate this product with miticides from a different chemical group. Consult your local supplier or technical adviser for further information on chemical groups. It is recommended that this product be applied no more than the following amount of times per season/crop and that it is not used consecutively except where a two-spray schedule is specifically recommended.

**Cotton:** No more than twice in one season and preferably only once per season. A second application is only recommended where mite pressure is very high.

**Apples, Capsicums, Pears, Citrus, Hops:** One spray per season.

**Tomatoes:** Two sprays per season, five sprays if mites are NOT present.

**Strawberries:** Two sprays per season.

For other crops see Directions For Use table.

This product must not be applied in two consecutive seasons or crops without an unrelated chemical being used in between. Alternate this product with approved miticides from other chemical groups.

For further information contact your local supplier, TITAN AG representative or local agricultural department agronomist.

**Crop Monitoring:** It is essential to carry out regular crop monitoring of mite levels (every 2-3 days for Cotton and every 3-5 days for other crops) to ensure the product is applied at the correct timing.

## MIXING INSTRUCTIONS FOR APPLES AND PEARS

To obtain 750mL of this product + 5L summer oil/ha apply spray at the following mixing rates:

	This product	Summer Oil
	Quantity per 100L required	
1000L/ha (minimum)	75mL	500mL
1500L/ha	50mL	335mL
2000L/ha	37.5mL	250mL
2500L/ha	30mL	200mL

## MIXING

Partly fill the spray tank with water, add the required amount of this product and then add the remainder of the water. If oil is recommended then add this after the TITAN Abamectin 18 Insecticide/Miticide is well mixed. A wetting agent is NOT required.

**Crop Safety:** A mixture of this product with summer oil has very occasionally caused slight fruit russetting on some Pear varieties particularly Anjou and other sensitive varieties when used alone or when other products are applied sequentially. A very small amount of temporary Apple fruit blemishing has been associated with low water volumes.

DO NOT apply this product to Apples and Pears before or after applications of Delan\* or Captan\*. The label instructions on the summer oil must be strictly followed.

Conditions which may contribute to crop damage are:

1. Unusually hot conditions present or expected within 24 hours of application.
2. Poor or slow drying conditions.
3. Application with equipment that may leave large droplets on fruit after application.

## COMPATIBILITY

This product is compatible with most commonly used insecticides and fungicides. However all mixtures should be tested prior to mixing commercial quantities.

## APPLICATION INSTRUCTIONS FOR COTTON

This product may be applied by ground spraying or by fixed wing aircraft. Apply in a minimum of 20L of water per hectare. Ensure good coverage.

**Ground:** Apply with inter-row droppers fitted with nozzles spraying towards the Cotton rows. The inter-row nozzles should be level with or just below the canopy and spraying at right angles to the ground.

**Air (fixed wing):** Apply in cooler parts of the day or night when there is a reliable cross wind to assist with good penetration into the crop canopy. Preferably use aircraft fitted with Micronair atomisers.

## APPLICATION INSTRUCTIONS FOR CITRUS

To be effective this product requires thorough spray coverage. Ensure that equipment is properly calibrated to give an even distribution at the correct volume. The same quantity of product per hectare should be used when spraying either with dilute or concentrate method.

### Dilute Spraying

- Use a sprayer designed to apply high volumes of water 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 water to cover the crop to the 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.
- The required dilute spray volume 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 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

1. Dilute spray volume as determined above: For example 1500L/ha
2. Your chosen spray volume: For example 500L/ha
3. The concentration factor in this example is:  $3 \times$  (i.e.  $1500L \div \text{by } 500L = 3$ )
4. If the dilute label rate is 10mL/100L, then the concentrate rate becomes  $3 \times 10$  that is 30mL/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.

## INSECTICIDE RESISTANCE WARNING

For insecticide resistance management TITAN Abamectin 18 Insecticide/Miticide is a Group 6

**GROUP 6** INSECTICIDE

miticide and insecticide. Some naturally occurring mite and insect biotypes resistant to this product and other Group 6 insecticides may exist through normal genetic variability in any mite or insect population. The resistant individuals can eventually dominate the mite or insect population if the product or other Group 6 insecticides are used repeatedly. The effectiveness of the product on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, TITAN AG Pty Ltd accepts no liability for any losses that may result from the failure of this product to control resistant insects or mites.

## PRECAUTIONS

**Re-entry Period:** Under field conditions, the spray should be allowed to dry on the foliage before re-entry into treated areas. DO NOT allow re-entry into treated areas in glasshouses for 24 hours after treatment. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist and elbow-length gloves.

## PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

**Drift Warning:** DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

## PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

DO NOT contaminate streams, rivers or watercourses with the chemical or used containers. Dangerous to fish and other water-borne organisms. Dangerous to bees. DO NOT spray any plants in flower while bees are foraging. Studies indicate that when Abamectin comes into contact with soil it readily and tightly binds to the soil and becomes inactive over time.





## STORAGE AND DISPOSAL

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

**For Non-Refillable Containers:** Triple-rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or a designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 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 or product.

**For Refillable Containers:** Storage must be secure so that contents cannot be tampered with. All locks and/or seals must be in order. If locks or seals are broken prior to initial use then the integrity of this product cannot be assured. If this occurs TITAN AG Pty Ltd should be advised immediately. Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

**Disposal of waste dipping solution:** Dispose of spent treatment solutions in a waste pit at least 50 metres away from streams, drains, ponds, channels, wells, boreholes or watercourses. Ensure it is disposed of at least two metres above any groundwater, in a location that is not affected by erosion or flooding. For light soil areas it is recommended to add compost, sawdust or peat to the disposed liquid.

## SAFETY DIRECTIONS

Poisonous if swallowed. Will irritate the eyes and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When opening the container, preparing the product for use and using the prepared product wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length chemical resistant gloves and goggles. In addition, if applying by low pressure hand wand, wear half facepiece respirator with dust cartridge or canister. When using as a dip, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length chemical resistant gloves, impervious footwear, goggles and half facepiece respirator. If product in eyes, wash it out immediately with water. 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, goggles, respirator (if rubber wash with detergent and warm water) and contaminated clothing.

## 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. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor. If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

## SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Abamectin 18 Insecticide/Miticide is available from TITAN AG Pty Ltd on request. Call Customer Service on (02) 9999 6655 or visit titanag.com.au

**CONDITIONS OF SALE:** TITAN AG Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on TITAN AG's skill or judgment in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of TITAN AG Pty Ltd has any authority to add to or alter these conditions.

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Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Harmful if swallowed. Toxic if inhaled. Causes skin irritation. Causes serious eye irritation. May damage fertility or the unborn child. May cause respiratory irritation. May cause damage to the central nervous system and the peripheral nervous system through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects. Precautionary Statements: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Specific treatment (see on this label). Get medical advice/attention if you feel unwell. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local/regional/national regulations.

