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



# **ABAMECTIN 18 EC®**

# MITICIDE – INSECTICIDE

ACTIVE CONSTITUENT: 18 g/L ABAMECTIN SOLVENT: 481 g/L LIQUID HYDROCARBON CO-SOLVENT: 100 g/L N-METHYL-2 PYRROLIDONE

# GROUP 6A INSECTICIDE

For the control of pest mites on pears, apples, tomatoes, citrus, hops, strawberries and ornamentals. For the control of pest mites and native budworm on cotton. As specified in the Directions for Use Table. ALWAYS READ THE LABEL AND USE ONLY AS DIRECTED

## **4 FARMERS AUSTRALIA PTY LTD**

A.B.N. 51 160 092 428 1 / 70 MCDOWELL STREET, WELSHPOOL, WA 6106 TEL: (08) 9356 3445 www.4farmers.com.au

Batch Number:

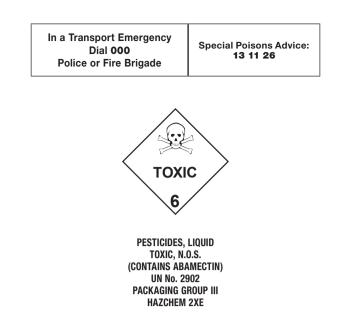
Date of Manufacture:



# DIRECTIONS FOR USE

## RESTRAINTS

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



SITUATION	PEST	RATE	WITHHOLDING PERIOD	CRITICAL COMMENTS
Cotton	Two spotted mite ( <i>Tetranychus urticae</i> ) Carmine mite (Tetranychus cinnabarinus)	300mL/ha	20 days (harvest) 20 days (livestock/grazing)	<b>Do NOT make more than two applications to cotton per season, regardless of pest being controlled.</b> Apply by ground spraying equipment or fixed wing aircraft in a minimum volume of 20 litres per hectare. Good 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. Applications to high populations may not give satisfactory control, under these conditions a second miticide application 7-10 days later may be needed. Do not use more than twice in one season for more control. Refer to notes on resistance under general instructions section of this label.
	Native budworm (Helicoverpa punctigera)	300 mL/had OR 600 mL/ha		<b>Do NOT make more than two applications to cotton per season, regardless of pest being controlled.</b> Use only when Lepton test kill results indicate 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 be targeted at brown eggs and newly emerged larvae (neonates). Mixed size larval populations should be avoided. Do not use more than twice in one season for native budworm control.
Pears Apples	Two spotted mite (Tetranychus urticae) European red mite (Panonychus ulmi)	750 mL/ha plus 5 L/ha Summer Oil see General Instructions for mixing rates	14 days (harvest) 14 days (livestock/grazing)	Apply as dilute or concentrated sprays but in no less than 1,000L/ha. Good coverage is essential. Use a high quality summer spraying oil and follow label instructions. For best results apply soon after mite numbers have reached the threshold for your area. Generally 4Farmers Abamectin 18 EC Miticide-Insecticide takes about 7 days to reach maximum mite control. 4Farmers Abamectin 18 EC Miticide-Insecticide takes about 7 days to reach maximum mite control. 4Farmers Abamectin 18 EC Miticide-Insecticide will control moderate to high mite populations but, in the absence of predatory mites (see Integrated Pest management below), re-treatment with another miticide may be necessary. If re-treatment is required, use an approved miticide from a different chemical group. Refer to notes on resistance and crop safety under General Instructions section of this label. Integrated pest control: The effects of 4Farmers Abamectin 18 EC Miticide-Insecticide on parasitic wasps and other beneficial insects in Australian orchards are not fully known. Studies have shown that after application of 4Farmers Abamectin 18 EC Miticide-Insecticide pest mite prey. Predatory mite numbers will increase with any increase in pest mite numbers, allowing the continuation of biological mite control. DO NOT use in IPM programmes unless the pest mite threshold has been reached and predators are unlikely to achieve effective control.
Citrus	Brown citrus rust mite (Tegologophus australis), Citrus rust mite (Phyllocoptruta oleivora), Broad mite (Polyphagotarsonemus latus)	125 mL-25 mL/100 L plus 250 mL/100 mL summer oil	7 days (harvest)	Apply as past pressure indicates, as a dilute spray in 3,000L to 6,000L of water per hectare. Use the higher rate under conditions of high pest pressure. Make no more than one application per season.
Hops	Two spotted mite (Tetranychus urticae)	1.0L/ha	4 weeks (harvest/grazing/ cut for stockfood)	Apply as past pressure indicates, as a dilute spray in 1,000L to 2,000L of water per hectare depending on crop size. Make no more than one application per season.
Tomatoes – Trellised or Staked	Two spotted mite (Tetranychus urticae)	High volume spraying: 300 mL-450 mL/ha 4Farmers Abamectin 18 EC Miticide-Insecticide using	3 days (harvest) 3 days (livestock/grazing)	Wet foliage to near the point of run-off. Thorough coverage and penetration into bushes is essential. Preferably apply before the build-up of mite numbers. If mite numbers exceed 5-6 mites per compound leaf, use the higher rate. Re-apply as pest numbers indicate. Allow at least 28 days between applications with 4Farmers Abamectin 18 EC Miticide-Insecticide and do not use more than two 4Farmers Abamectin 18 EC Miticide-Insecticide sprays per crop. Refer to notes on resistance under General Instructions section of label.
	Tomato russet mite (Aculops lycopersici)	concentrations of 60-90mL/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.
	Tobacco Leafminer (Potato moth) <i>(Phthorimaea apercullela)</i>	High volume spraying: 600 mL/ha using concentrations of 120 mL/100 L		Wet foliage to near the point of run-off. Thorough coverage and penetration into bushes is essential. Apply on the first sign of pests. Re-apply as pest numbers indicate, or every 7-10 days with a maximum of 5 applications per crop. If mites are also a problem do not use more than two 4Farmers Abamectin 18 EC Miticide-Insecticide per crop. Refer to notes on resistance under General Instructions section of this label. NB: other IPM strategies to reduce leafminer populations should be employed.
Pears Apples Citrus Citrus Hops Tomatoes – Trellised or Staked	Two spotted mite (Tetranychus urticae)	300-450 mL/ha	3 days (harvest) 3 days (livestock/grazing)	Apply in sufficient volume to obtain even coverage and penetration of plants. Use droppers to direct spray onto plants and away from inter- row. Preferably apply before the build-up of mite numbers. if mite numbers exceed 5 mites per compound leaf, use the higher rate. Re- apply as pest numbers indicate. Allow at least 28 days between applications with 4Farmers Abamectin 18 EC Miticide-Insecticide sprays per crop. Refer to notes on resistance under General Instructions section of this label.
	Tomato russet mite (Aculops lycopersici)			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.
	Tobacco Leafminer (Potato moth) <i>(Phthorimaea apercullela)</i>	600 mL/ha		Apply in sufficient volume to obtain even coverage and penetration of plants. use droppers to direct spray onto plants and away from inter- row. 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 two 4Farmers Abamectin 18 EC Miticide-Insecticide sprays per crop. Refer to notes on resistance under General Instructions section of this label. NB: other IPM strategies to reduce leafminer populations should be employed.
Strawberries	Two spotted mite (Tetranychus urticae)	100 mL/100 L. If spray volume is less than 600 L/ ha, use a minimum of 800 mL/ha 4Farmers Abamectin 18 EC Miticide- Insecticide. Do not exceed 1200 mL/ha 4Farmers Abamectin 18 EC Miticide- Insecticide per application.	5 uays	Spray to wet foliage to near the point of run-off. Thorough coverage and penetration into plants is essential. Preferably apply on first appearance of mites. When applied early, one application may be sufficient to give effective control. However, if mite numbers exceed 3-5 mites per leaflet, apply two applications spaced 7-10 days apart. Re-apply as pest numbers indicate to a maximum of two sprays with 4Farmers Abamectin 18 EC Miticide-Insecticide per season. If re-treatment is required after two consecutive sprays with 4Farmers Abamectin 18 EC Miticide, use an approved miticide from a different chemical group. Refer to notes on resistance under General Instructions section of this label. Integrated pest control: See comments in the Apple and Pear section.
Roses, Chrysanthemums, Carnations and indoor	Two spotted mite (Tetranychus urticae)	50 mL/100L to a maximum of 1.5 L/ha 4Farmers Abamectin 18 EC Miticide- Insecticide per application.	DO NOT cut or graze for stock food	Spray to wet foliage to near the point of run-off using at least 2,000L/ha (100L per 500 square metres). Thorough coverage and penetration into plants is essential. Preferably apply on first appearance of mites. When applied when pest numbers are low to moderate, one application will be sufficient to give effective control. However, if mites are numerous, apply two applications spaced 7-10 days apart. Re-apply as pest numbers indicate to a maximum of two sprays with 4Farmers Abamectin 18 EC Miticide-Insecticide per season. Ferns and Shasta Daisies may be affected by 4Farmers Abamectin 18 EC Miticide-Insecticide, so the product should not be used on them. For ornamentsals not listed on the label, small test applications to assess for unexpected phytotoxicity should be made before spraying the whole crop. Do not use more than two times per season. Refer to notes on resistance under General Instructions section of this label.

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

## WITHHOLDING PERIODS

COTTON: DO NOT harvest for 20 days after application. DO NOT graze cut for stock feed for 20 days after application.

**APPLES, PEARS:** DO NOT harvest for 14 days after application. DO NOT feed treated product to livestock for 14 days after application.

CITRUS: DO NOT harvest for 7 days after application.

HOPS: DO NOT harvest, graze or cut for stockfood for 4 weeks after application.

**STRAWBERRIES, TOMATOES:** DO NOT harvest for 3 days after application. DO NOT feed treated produce to livestock for 3 days after application.

**ORNAMENTALS:** DO NOT cut or graze for stock food

### **GENERAL INSTRUCTIONS**

4Farmers Abamectin 18 EC Miticide is for control of pest mites on pears, apples, tomatoes, citrus, hops, strawberries and ornamentals, and for the control of pest mites and native budworm on cotton. After application, 4Farmers Abamectin 18 EC Miticide-Insecticide quickly moves onto leaves where it remains for several weeks and where it is taken up by sucking mites. 4Farmers Abamectin 18 EC Miticide-Insecticide is not a systematic, making good coverage essential. Abamectin that is not absorbed into plants is quickly degraded.

# **INSECTICIDE RESISTANCE WARNING**

# GROUP 6A INSECTICIDE

For insecticide resistance management 4Farmers Abamectin 18 EC Miticide-Insecticide is a Group 6A insecticide. Some naturally occurring insect biotypes resistant to 4Farmers Abamectin 18 EC Miticide-Insecticide and other Group 6A insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if 4Farmers Abamectin 18 EC Miticide-Insecticide or Group 6A insecticides are used repeatedly. The effectiveness of 4Farmers Abamectin 18 EC Miticide-Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use 4 Farmers Australia Pty Ltd accepts no liability for any losses that may result from the failure of 4Farmers Abamectin 18 EC Miticide-Insecticide to control resistant insects. 4Farmers Abamectin 18 EC Miticide-Insecticide may be subject to specific resistant management strategies. Therefore, 4Farmers Abamectin 18 EC Miticide-Insecticide should not be applied more than the following number of times per season/crop and should not be used consecutively except where a two-spray schedule is specifically recommended.

Apples, Pears, Citrus, Hops: one spray per season

Tomatoes: two sprays per crop if mites are present, or 5 sprays per crop if mites are not present

Cotton, Strawberries, Ornamentals: two sprays per season

#### **CROP MONITORING**

Effective control depends upon regular monitoring of crops. Check crops regularly (every 3-5 days) during the season.

#### **APPLICATION ON COTTON**

Air: Apply by air spray when there is a reliable cross wind to assist with good penetration into the drop canopy. Application should be carried out in the cooler parts of the day or night. Preferably use aircraft fitted with microhair atomisers. Ground: Use inter-row droppers fitted with nozzles spraying towards the cotton

rows. Inter-row nozzles should be level with or just below the canopy and spraving at right angles to the ground.

#### MIXING

Measure the required amount of 4Farmers Abamectin 18 EC Miticide-Insecticide, add to the partly filled spray tank, and then add the remainder of the water. If oil is recommended, add this after the 4Farmers Abamectin 18 EC Miticide-Insecticide is well mixed. Wetting agent is not required.

### **MIXING INSTRUCTIONS** FOR APPLE AND PEAR APPLICATIONS

To achieve 750mL 4Farmers Abamectin 18 EC Miticide-Insecticide plus 5L Summer Oil per ha, apply spray at the following mixing rates.

WATER	4Farmers Abamectin 18 EC Miticide-Insecticide (Amount required per 100 Litres)	Summer Oil
1,000L/ha (minimum)	75 mL	500 mL
1,500L/ha (minimum)	50 mL	335 mL
2,000L/ha (minimum)	37.5 mL	250 mL
2,500L/ha (minimum)	30 mL	200 mL

#### COMPATIBILITY

4Farmers Abamectin 18 EC Miticide-Insecticide is compatible with most commonly used insecticides and fungicides. Do not apply with ULV formulations.

## **CROP SAFETY**

4Farmers Abamectin 18 EC Miticide-Insecticide plus Summer Oil may very occationally cause slight 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 may be associated with low water volume applications. 4Farmers Abamectin 18 EC Miticide-Insecticide plus Summer Oil may cause more severe fruit russetting on sensitive apple varieties such as Golden Delicious when used within 7 days before or after application of the fungicide Delan SC\*, the Directions for Use and Precautions on Summer Oil labels should be followed carefully. Certain conditions may play a part in the occurrence of the damage. DO NOT make applications (1) when unusually hot conditions are present or expected within 24 hours after application, (2) under poor or slow drying conditions, or (3) with equipment that may leave large droplets on fruit after application.

## PRECAUTIONS

Re-entry Period: Under field conditions the spray should be allowed to dry on the foliage before re-entry into the treated areas.

Do not allow entry into treated areas in glasshouses for 24 hours after treatment. When entry prior to this time is necessary, wear cotton overalls buttoned to the neck and wrist and elbow length PVC gloves.

# **PROTECTION OF WILDLIFE,**

#### SAFETY DIRECTIONS

Poisonous if absorbed by skin contact or swallowed. Will irritate the skin. Avoid contact with eyes and skin. Do not inhale spray mist. When opening the container, preparing spray and using prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves and goggles

For space applications, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC gloves, goggles and half facepiece respirator with dust cartridge or canister. 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, contaminated clothing and respirator (and if rubber, wash with detergent and warm water).

#### **FIRST AID**

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone 13 11 26). If skin contact occurs, remove contaminated clothing and wash skin thoroughly. If swallowed, do NOT induce vomiting. Give a glass of water

#### SAFETY DATA SHEET

For further information please refer to the Safety Data Sheet. For a copy visit our website at www.4farmers.com.au

#### **CONDITIONS OF SALE**

The use of this product is beyond the control of 4 Farmers Australia Pty Ltd. No warranty is expressed or implied regarding the suitability or efficiency for any purpose for which it is used by the buyer. 4 Farmers Australia Pty Ltd accepts no responsibility for any consequences resulting from the use of this product. 4 Farmers Australia Pty Ltd will not be held liable for any loss, injury or damage arising from the sale, supply or use of this product, whether through negligence or otherwise. No responsibility will be accepted for any consequences whatsoever resulting from the use of this product.

\*not a 4Farmers trademark.

#### FISH. CRUSTACEANS AND ENVIRONMENT

Do not apply when weather conditions favour drift from the target area. Dangerous to fish and other aquatic organisms. Do not contaminate streams, rivers or waterways with the chemical or used containers. Dangerous to bees. Do not spray any plant in flower while bees are foraging. Studies indicate that when abamectin comes into contact the soil it readily and tightly binds to the soil and becomes inactive over time. Empty containers and any residue concentrate or diluted spray mix should be disposed of safely in an approved landfill.

## STORAGE AND DISPOSAL

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

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the container below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.