

CAUTION

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

TITAN

EMAMECTIN 17 INSECTICIDE

ACTIVE CONSTITUENT: 17g/L EMAMECTIN present as EMAMECTIN BENZOATE
SOLVENT: 200g/L DIETHYLENE GLYCOL MONOBUTYL ETHER

GROUP **6** INSECTICIDE

For the control of insect pests in Brassica Vegetables, Canola, Capsicum, Cotton, Grapes, Lettuce, Pulses, Sweet Corn and Tomatoes specified in the Directions for Use.

APVMA Approval No.: 90876/135018

Pack Size: 5L-200L



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IN A TRANSPORT EMERGENCY

DIAL 000

POLICE OR FIRE BRIGADE

TRANSPORT AND HANDLING
NOT A DANGEROUS GOOD
ACCORDING TO THE AUSTRALIAN
DANGEROUS GOODS (ADG) CODE
FOR TRANSPORT BY ROAD AND RAIL

DIRECTIONS FOR USE

Restraints:

DO NOT use on Canola grown as a forage crop.

DO NOT use on dual-use canola prior to grazing.

DO NOT apply to crops under visible stress.

DO NOT apply if wind speed is less than 3km and more than 20km per hour or under conditions where temperature inversions may occur.

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

DO NOT apply with aircraft in brassica vegetables, grapes, sweet corn, lettuce, capsicum and tomatoes.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at 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 one to two hours before sunset and persist until one to two hours after sunrise.

CROP	PEST	RATE	CRITICAL COMMENTS
Cotton QLD, NSW, WA, NT only	Heliothis (<i>Helicoverpa armigera</i> , <i>Helicoverpa punctigera</i>)	550mL/ha or 700mL/ha	Add a non-ionic surfactant at recommended label rate. Timing is important. For best results apply at or just prior to the anticipated time of hatching of <i>Helicoverpa</i> eggs as indicated by egg levels or scouting. As earlier larval stages are easier to control, do not target larvae larger than 5mm (very small to small). Large larvae and larvae feeding within bolls and squares may not be controlled. Larvae must feed on treated areas in order to achieve effective control. Where high egg lays occur the addition of an ovicide is recommended. Use the lower rate on light infestations. Make no more than 4 applications per season. TITAN Emamectin 17 Insecticide should be used according to the Cotton Best Management Practices Manual.
	Green Mirids Suppression only		Apply to developing Green Mirid populations that are predominantly nymphs. Maximum effect is not achieved until 5 to 7 days after application. Use the higher rate on heavier populations.
	Mites Suppression only		Applications of TITAN Emamectin 17 Insecticide as outlined above for Heliothis will reduce the rate of mite development in treated Cotton.
Summer and winter pulse crops	Heliothis (<i>Helicoverpa armigera</i> , <i>Helicoverpa punctigera</i>), Loopers, Diamondback Moth	150mL/ha to 300mL/ha	Add a non-ionic surfactant at recommended label rate. Timing is important. For best results, apply at or just prior to the anticipated time of hatching of Lepidoptera larvae as indicated by egg levels or scouting. As earlier larval stages are easier to control, do not target larvae larger than 5mm (very small to small). Use rates towards the lower end of the range to control threshold level populations when crop growth stage or insect activity does not favour rapid population development. Larvae feeding within pods may not be controlled. Larvae must feed on treated areas in order to achieve effective control. Where high egg lays occur, the addition of an ovicide is recommended. DO NOT make more than 2 applications per season, with a minimum interval of 7 days between applications. If further applications are necessary, rotate to an approved product from a different MOA group. Highly toxic to bees. Refer to the Protection of Livestock statement for notification requirements.
Canola (for grain production)	Diamondback Moth	150mL/ha to 300mL/ha	Add a non-ionic surfactant at recommended label rate. Apply as soon as larval populations reach threshold numbers. Observe current industry threshold recommendations based on crop growth stage. Use rates towards the lower end of the range to control threshold level populations when crop growth stage or insect activity does not favour rapid population development. Use the higher rate to control threshold level populations when conditions favour rapid crop or pest population development. Sample crops twice a week after application to determine if a second application is required. Make no more than 2 applications per season. If further applications are necessary, rotate to an approved product from a different MOA group. Highly toxic to bees. Refer to the Protection of Livestock statement for notification requirements.
Brassica Vegetables Broccoli, Brussels Sprouts, Cabbages, Cauliflower only	Diamondback Moth (Cabbage Moth), Cabbage White Butterfly	650mL/ha to 780mL/ha	Add a non-ionic surfactant at recommended label rate. Spray at first signs of insect infestation as indicated by local spray thresholds. Use the lower rate on low to moderate infestations. DO NOT make more than 4 applications to any brassica crop. Where more than one crop is grown do not make more than 4 applications of TITAN Emamectin 17 Insecticide in any one year. Resistance Management The use of TITAN Emamectin 17 Insecticide in vegetable brassicas is subject to an insecticide resistance management strategy for Diamondback Moth. Review the current CropLife strategy prior to use.

CROP	PEST	RATE	CRITICAL COMMENTS
Capsicum, Lettuce	Heliothis (<i>Helicoverpa armigera</i> , <i>Helicoverpa punctigera</i>)	390mL/ha to 650mL/ha	Spray at first signs of insect infestation as indicated by local spray thresholds. For best results apply soon after the <i>Helicoverpa</i> eggs have hatched. DO NOT apply more than 4 sprays of TITAN Emaxectin 17 Insecticide per crop. Where more than one crop is grown per year, do not apply more than 4 sprays per year. Ensure thorough spray coverage. Use the lower rate when targeting light infestations of small larvae. Use 650mL/ha during periods of heavy insect pressure or under very hot and sunny conditions. TITAN Emaxectin 17 Insecticide should be used according to CropLife resistance management strategies.
Grapes (except grapes grown for dried fruit production)	Lightbrown Apple Moth, Grapevine Moth	Dilute spraying: 40mL/100L Concentrate Spraying: Refer to the Mixing/ Application section	DO NOT apply after bunch closure. For optimal control of Lightbrown Apple Moth, apply soon after egg lay when larvae are small in size and before larvae become webbed into the bunches. Eggs laid after application on new growth may not be controlled. For Grapevine Moth control, spray when local threshold levels have been reached. Monitor pest levels after application, a further application may be required (Minimum re-treatment interval: 7-14 days). Apply by dilute or concentrate spraying equipment. Apply a maximum of 2 applications. Ensure thorough coverage. Apply the same amount of product to the target crop whether applying this product by dilute or concentrate spraying methods.
Sweet Corn	Heliothis (<i>Helicoverpa armigera</i> , <i>Helicoverpa punctigera</i>)	390mL/ha to 650mL/ha	For best results apply just prior to or just after the <i>Helicoverpa</i> eggs have hatched, but before larvae enter the cob. DO NOT apply more than 4 sprays of TITAN Emaxectin 17 Insecticide per crop. Where more than one crop is grown per year, do not apply more than 4 sprays per year. Thorough spray coverage is critical. Larvae present within the cob at the time of spraying may not be controlled. Use the lower rate when targeting light infestations of small larvae. Resistance Management The use of TITAN Emaxectin 17 Insecticide in Sweet Corn is subject to an insecticide resistance management strategy for <i>Helicoverpa armigera</i> . Review the current CropLife strategy prior to use.
Tomatoes	Heliothis (<i>Helicoverpa armigera</i> , <i>Helicoverpa punctigera</i>)	390mL/ha to 650mL/ha or 39mL/100L to 65mL/100L (dilute spraying for trellised Tomatoes)	Spray at first signs of insect infestation as indicated by local spray thresholds. For best results apply soon after the <i>Helicoverpa</i> eggs have hatched. DO NOT apply more than 4 sprays of TITAN Emaxectin 17 Insecticide per crop. Where more than one crop is grown per year, do not apply more than 4 sprays per year. Ensure thorough spray coverage. Use the lower rate when targeting light infestations of small larvae. Use 650mL/ha during periods of heavy insect pressure or under very hot and sunny conditions. Trellised Tomatoes: In the case of dilute spraying (mL/100L), apply in the range of 400 to 500L/ha after transplanting and increase to 800 to 1000L/ha at full canopy. Resistance Management The use of TITAN Emaxectin 17 Insecticide on Tomatoes is subject to an insecticide resistance management strategy for <i>Helicoverpa</i> spp. Review the current CropLife strategy prior to use.

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

WITHHOLDING PERIODS

Canola: DO NOT HARVEST, GRAZE OR CUT FOR STOCK FOOD FOR 2 WEEKS AFTER APPLICATION

Cotton: DO NOT HARVEST, GRAZE OR CUT FOR STOCK FOOD FOR 4 WEEKS AFTER APPLICATION
DO NOT FEED COTTON TRASH FROM TREATED AREAS TO ANIMALS, INCLUDING POULTRY

Pulses:

Harvest: DO NOT HARVEST FOR 21 DAYS AFTER APPLICATION

Grazing: DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER APPLICATION

Brassica vegetables: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION

DO NOT USE TREATED CROP, CROP WASTE OR PRODUCE FOR STOCK FOOD

Capsicum, Lettuce, Tomatoes: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION

DO NOT ALLOW LIVESTOCK TO GRAZE TREATED CROPS OR CROP STUBBLE

Grapes: DO NOT HARVEST FOR 8 WEEKS AFTER APPLICATION

DO NOT GRAZE TREATED AREAS, OR CUT FOR STOCKFEED FOR 8 WEEKS AFTER APPLICATION

Sweet Corn: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION

DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 21 DAYS AFTER APPLICATION

EXPORT TRADE ADVICE: Treated crop commodities destined for export may require extra time being allowed between application and harvest, as some export markets have either no Maximum Residue Limits (MRLs) or different MRLs to those of Australia. Details of overseas standards and any export interval can be obtained by contacting TITAN AG Pty Ltd before using this product.

GENERAL INSTRUCTIONS

MIXING

Add the required amount of TITAN Emamectin 17 Insecticide to a partly filled spray tank and then add the remainder of the water.

APPLICATION

To be effective TITAN Emamectin 17 Insecticide requires thorough spray coverage. Ensure that equipment is properly calibrated to give an even distribution at the correct volume.

Ground Application

Cotton: Apply in at least 80L spray/ha.

Canola: Apply in at least 100L spray/ha.

Pulses: Apply in at least 80 to 100L spray/ha depending on the crop canopy size. Use at least 80L spray/ha for crops with lower canopy size eg. Lentils, and 100L spray/ha for crops with higher canopy size eg. Chickpeas.

Air Application

Apply in at least 20L spray/ha.

Capsicum, Lettuce, Sweet Corn and Tomatoes: Ensure thorough coverage of the crop.

Brassica Vegetables: Apply TITAN Emamectin 17 Insecticide in a minimum of 400L water per hectare.

Grapes: Apply TITAN Emamectin in a minimum of 250L water per hectare.

Mixing/Application:

Grapes and Trellised Tomatoes

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 concentrate spray volume: For example 500L/ha
 3. The concentration factor in this example is: 3 X (i.e. $1500L \div 500L = 3$)
 4. If the dilute label rate is 40mL/100L, then the concentrate rate becomes 3 x 40, that is 120mL/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 Emamectin 17 Insecticide is a Group 6 insecticide. Some naturally occurring insect biotypes resistant to TITAN Emamectin 17 Insecticide and other Group 6 insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if TITAN Emamectin 17

GROUP	6	INSECTICIDE
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Insecticide and other Group 6 insecticides are used repeatedly.

The effectiveness of TITAN Emamectin 17 Insecticide 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 failure of TITAN Emamectin 17 Insecticide to control resistant insects. TITAN Emamectin 17 Insecticide may be subject to specific resistance management strategies. For further information contact your supplier, TITAN AG representative or local agricultural department agronomist.

PRECAUTION

Re-entry Period: DO NOT enter treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Dangerous to fish and other aquatic organisms. DO NOT contaminate streams, rivers or watercourses with the chemical or used containers. 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. Direct spray contact or even slight drift may cause severe injury or destruction of any growing crop or other desirable plants including trees and native vegetation. DO NOT use when breeze is blowing towards nearby desirable plants.

PROTECTION OF LIVESTOCK – BEES

Highly toxic to bees. Will kill bees foraging in the crop to be treated or in hives which are oversprayed or reached by spray drift. Residues may remain toxic to bees for several days after application. DO NOT spray any plants in flower while bees are foraging. Before spraying, notify beekeepers to move hives to a safe location with an untreated source of nectar, if there is potential for managed bees to be affected by the spray or spray drift.

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-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 deliver 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 Local, State or Territory government regulations. Empty containers and product should not be burnt.

SAFETY DIRECTIONS

Will damage the eyes. May irritate the skin. Avoid contact with eyes and skin. When opening the container and preparing the spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length chemical resistant gloves and goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length chemical resistant gloves. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766. If skin contact occurs, remove contaminated clothing and wash skin thoroughly. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

SAFETY DATA SHEET

Additional information is listed in the safety data sheet (SDS). A safety data sheet for TITAN Emamectin 17 Insecticide 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.



Additional statements required by Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia: Combustible liquid. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause damage to the nervous system. May cause damage to the nervous system through prolonged or repeated exposure. Harmful to aquatic life. Toxic to aquatic life with long lasting effects. Precautionary Statements: Keep away from flames and hot surfaces. No smoking. 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. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position 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: Call a POISON CENTER/doctor. Call a POISON CENTER/doctor if you feel unwell. 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. In case of fire: Use CO₂, powder or water spray for extinction. Collect spillage. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local/regional/national regulations.

