

HARMFUL

KEEP OUT OF REACH OF CHILDREN

ACTIVE INGREDIENT:

Contains 100 g/L Cyantraniliprole in the form of a suspo-emulsion

CONTENTS:

1 L, 5 L

GROUP **28** INSECTICIDE

For control of certain pests in Fodder brassicas and Fodder beets.

FIRST AID

If on the skin wash with plenty of soap and water. If skin irritation or rash occurs get medical attention/advice. For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor if feeling unwell.

Registered Pursuant to the ACVM Act 1997 No. P008572

See www.foodsafety.govt.nz for registration conditions.

Approved pursuant to the HSNO Act 1996 Code HSR100857

See www.epa.govt.nz for approval controls.



HAZARD CLASSIFICATION: 6.3A, 6.5B, 6.9B, 9.1A, 9.4B

HARMFUL - Causes skin irritation and may cause an allergic skin reaction. May cause damage to the liver or thyroid through prolonged or repeated exposure.

ECOTOXIC - Very toxic to aquatic organisms. Toxic to terrestrial invertebrates. Take all reasonable steps to ensure that the substance does not cause any significant adverse effects to the environment beyond the application area. **DO NOT** apply directly into or onto water.

HANDLING PRECAUTIONS: The person mixing or applying Exirel[®] must be a "Qualified Contractor" or a "Qualified Person". The spray mixture may also be prepared by a "Qualified Loader".

PERSONAL PROTECTION: Avoid skin contact. **DO NOT** breathe concentrate or spray mist. When mixing or applying wear waterproof gloves, hat, overalls and footwear. **DO NOT** eat, drink or smoke while using. Wash hands and face thoroughly before meals and after work. Wash contaminated clothing before re-use.

STORAGE: Keep out of the reach of children. Store in original container tightly closed and in a locked, dry, cool, well ventilated area. **DO NOT** store for long periods of time in direct sunlight. Stores containing more than 100 L of this product require secondary containment and are subject to signage. When stored appropriately, this product should show no significant degradation for 2 years from the date of manufacture. Contact your supplier for further information about the reuse of any product that is older than this.

DISPOSAL: Container disposal: Triple rinse empty container adding rinsate to the spray tank. Recycling rinsed container through Agrecovery (0800 247 326, www.agrecovery.co.nz). Otherwise crush or puncture and bury in an approved landfill. **DO NOT** reuse container for any other purpose. Dispose of this product only by using according to this label. Always follow local Authority requirements.

GENERAL INSTRUCTIONS

Exirel® insecticide is an anthranilic diamide insecticide in the form of a suspo-emulsion, to be mixed with water and applied as a foliar spray. Exirel® insecticide is particularly active on both sucking and chewing (Lepidopteran) insect pests, acting on insect ryanodine receptors. Exirel® insecticide is specially formulated for maximum performance by foliar applications in Fodder brassica and Fodder beet crops.

Before application monitor insect populations to determine whether there is a need for application of Exirel® insecticide based on locally determined economic thresholds. More than one treatment of Exirel® insecticide may be required to control a population of pests.

Exirel® insecticide primarily intoxicates insect pests via ingestion but may also have some minimal contact activity. Exposure of the pest species typically results in rapid feeding cessation within a few hours of exposure. However, the time to death and economic levels of population control may be 3 to 6 days depending upon the species. Exirel® insecticide is effective at reducing both direct damage and also the transmission of some insect transmitted diseases as a foliar application in Fodder brassicas and Fodder beet.

DIRECTIONS FOR USE

It is an offense to use this product on animals.

DO NOT apply if rain is expected within 2 hours of application, or if heavy rainfall likely to generate run-off is expected within 48 hours of application.

CROP	PEST	RATE/HA	CRITICAL COMMENTS
Fodder brassicas	Cabbage white butterfly (<i>Pieris rapae</i>) Diamond back moth (<i>Plutella xylostella</i>) Soybean looper (<i>Thysanoplusia orichalcea</i>) European leaf miner (<i>Scaptomyza flava</i>) Suppression: Grey cabbage aphid (<i>Brevicoryne brassicae</i>)	150 mL + non-ionic surfactant (refer to Surfactant/Wetting agent section)	Regularly scout crops to monitor for eggs and larvae. Apply when insects or damage first appear and before a build-up of pest numbers. Repeat at 2 - 3 week intervals as indicated by pest activity. Ensure complete and thorough spray coverage. DO NOT apply more than three (3) applications to any one crop per season and no more than two consecutively. Further treatments should be made with alternative mode of action insecticides.
Fodder beets	European leaf miner (<i>Scaptomyza flava</i>)		

It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residue Levels for Agricultural Compounds.

WITHHOLDING PERIODS

Fodder brassicas

DO NOT GRAZE OR FEED TREATED PRODUCE TO LIVESTOCK WITHIN 14 DAYS OF APPLICATION.

Fodder beets

DO NOT GRAZE OR FEED TREATED PRODUCE TO LIVESTOCK WITHIN 28 DAYS OF APPLICATION.

INTEGRATED PEST MANAGEMENT

Exirel® insecticide can be effectively utilised in most Integrated Pest Management (IPM) programmes. Exirel® insecticide can help conserve certain beneficial arthropods (parasites and predators). While these beneficial arthropods cannot be relied upon to control pests, they are of potential value and can be monitored along with pests in pest management programmes on crops.

BEE SAFETY

DO NOT apply Exirel® insecticide to flowering crops.

Ensure

- flowering weeds are removed before spraying to avoid potential exposure of honeybees.
- spray drift is avoided into flowering off-crop habitats during application.
- DO NOT** apply during bee flight.

INSECTICIDE RESISTANCE WARNING

GROUP 28 INSECTICIDE

Exirel® insecticide contains cyantraniliprole, a Group 28 insecticide. Unless directed otherwise in the specific crop/insect sections of the label, the following practices are recommended to prevent or delay the development of insecticide resistance to Exirel® insecticide and to Group 28 insecticides.

- Apply Exirel® insecticide or other Group 28 insecticides using a “window” approach to avoid exposure of consecutive insect pest generations to the same mode of action. Multiple successive applications of Exirel® insecticide are acceptable if they are used to treat a single insect generation.
- Following a “window” of Exirel® insecticide or other Group 28 insecticide, rotate to a “window” of applications of effective insecticides with a different mode of action.
- DO NOT** apply more than three (3) applications to any one crop per season and no more than two consecutively.
- The total exposure period of all “Group 28-active windows” applied throughout the crop cycle (from seedling to harvest) should not exceed 50% of the crop cycle.
- Incorporate IPM techniques into the overall pest management program.
- Monitor insect populations for loss of field efficacy.

Exirel® insecticide may be subject to alternative resistance management strategies, refer to <http://resistance.nzpps.org> for specific pest strategies.

If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local farm chemical supplier, consultant, or local representative for the best alternate method of control for your area.

Since the occurrence of resistant individuals is difficult to detect prior to use FMC accepts no liability for any losses that may result from the failure of Exirel® insecticide to control resistant insects.

For additional information on insect resistance, modes of action and monitoring visit the Insecticide Resistance Action Committee (IRAC) on the web at <http://www.irac-online.org>.

MIXING INSTRUCTIONS

Spray equipment must be clean and free of previous pesticide deposits before applying Exirel® insecticide. Fill spray tank ¼ to ½ full of water. Shake the container well immediately before decanting. Measure the amount of Exirel® insecticide required for the area to be sprayed. Add Exirel® insecticide directly to the spray tank with the agitation engaged. Mix thoroughly to disperse the insecticide. Once dispersed, the material must be kept in suspension at all times by continuous agitation. Use mechanical or hydraulic means. **DO NOT** use air agitation, premix or slurry. Top up the tank with clean water to the required volume.

If spray solution is left standing, ensure thorough re-agitation of the spray mix until fully re-suspended. **DO NOT** allow spray mix to sit overnight, as resuspension may be difficult.

ACIDIFICATION OF THE SPRAY TANK

If the pH of the spray tank after all products have been added and mixed is above pH 8, adjust to pH 8 or less using a registered acidifying agent. If the spray tank pH is 8 or less no adjustment of the spray tank pH is necessary. Spray tanks of pH 8 or less can be held for up to 8 hours before spraying. **DO NOT** store the spray mixture overnight in the spray tank.

SURFACTANT/WETTING AGENT

Use a non-ionic surfactant/wetting agent at the highest rate recommended for hard-to-wet crops.

DO NOT add a non-ionic surfactant/wetting agent if mixing with:

- another product which already contains a surfactant and/or the product label advises not to add a surfactant.
- a liquid fertiliser

COMPATIBILITY

Exirel® insecticide is compatible with many commonly used fungicides, liquid fertilisers, herbicides, insecticides, and biological control products. However, since the formulations of products are always changing, it is advisable to test the physical compatibility of desired tank mixes and check for adverse effects like settling out or flocculation. To determine the physical compatibility, add the recommended proportions of the tank mix products to water, mix thoroughly and allow to stand for 20 minutes. If the combination remains mixed, or can be re-mixed readily, it is considered physically compatible. Avoid complex tank mixtures of several products or very concentrated spray mixtures.

The crop safety of all potential tank-mixes, including additives and other pesticides, on all crops has not been tested. Before applying any tank-mixture not specifically recommended on this label or other FMC supplemental labelling, the safety to the target crop must be confirmed. To test for crop safety, apply the combination to a small area of the target crop in accordance with the label instructions to ensure that a phytotoxic response will not occur.

The mixing sequence recommended is: water-soluble bags, water-soluble granules, dry flowable or water-dispersible granules, wettable powders, water-based suspension concentrates, water-soluble concentrates, suspo-emulsions (e.g. Exirel® insecticide), oil-based suspension concentrates, emulsifiable concentrates, adjuvants and surfactants, soluble fertilisers and drift retardants.

CROPS CULTIVARS NOT TESTED

Not all varieties, cultivars or hybrids of crops have been individually tested for crop safety. It is not possible to evaluate for crop safety all applications of Exirel® insecticide on all varieties, cultivars, or hybrids, or under all environmental conditions and growing circumstances. To test for crop safety, apply the product in accordance with the label instructions to a small area of the target crop to ensure that a phytotoxic response will not occur, especially where the application is a new use of the product by the applicator.

APPLICATION

Use enough water to ensure thorough coverage of the crop. Adjust water volumes to crop stage. Droplet VMD must be of medium spray quality according to ASABE S572 Standard or the BCPC Guideline.

GROUND APPLICATION

Use a boom sprayer fitted with high flow rate nozzles to apply the highest practical spray volume. Apply in a minimum spray volume of 100 L/ha. Nozzles with higher rated flows produce larger droplets. Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size, **DOES NOT** improve canopy penetration and may increase drift potential.

WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE. A minimum spray pressure of 275 kPa (40 psi) should be used with fan nozzles applying insecticides. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. When applying Exirel® insecticide by ground application, keep the boom low to avoid spray drift.

AERIAL APPLICATION

Exirel® insecticide must only be applied with helicopters fitted with accurately calibrated equipment. Apply a minimum total spray volume of 50 L/ha with nozzles (e.g. CP nozzles or conventional hydraulic nozzles) set to deliver medium spray quality according to ASABE S572 Standard or the BCPC Guideline. A spray drift minimisation strategy should be employed at all times when applying this product. **DO NOT** apply Exirel® insecticide using Ultra Low Volume (ULV) methods.

MINIMISING SPRAY DRIFT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator must consider all these factors when making application decisions. The most effective way to reduce drift potential and maintain efficacy is to apply a volume mean diameter (VMD) 285 - 300 microns.

DO NOT apply during surface temperature inversion conditions at the application site.

DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour at the application site.

MANDATORY NO-SPRAY ZONES

DO NOT apply if there are aquatic or wetland areas including aquacultural ponds downwind from the application area and within the mandatory nospray zones shown in the table below:

No-Spray zones for Protection of the Aquatic Environment	
Wind Speed Range at Time of Application	Downwind No-Spray Zone
FOR AERIAL APPLICATION	
From 3 to 20 kilometres per hour	50 metres
FOR GROUND APPLICATION	
From 3 to 20 kilometres per hour	5 metres

SPRAY EQUIPMENT CLEANOUT

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove. Drain spray equipment, thoroughly rinse sprayer and flush hoses, boom, and nozzles with clean water. Clean all other associated application equipment. Take all necessary safety precautions when cleaning equipment.

DO NOT clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

RECORD KEEPING

Records of use as described in Health and Safety at Work regulations and Hazard Substance Notices must be kept if 3 L or more of Exirel® is applied within 24 hours in a place where the substance is likely to enter air or water and leave the application area. Records of use must be kept as described in NZS 8049 Management of Agrichemicals.

SAFETY DATA SHEET

Additional information is available in the Safety Data Sheet for the product, this is available from www.fmccrop.nz

SPILLAGE

Wear appropriate protective clothing. Exclude all bystanders from vicinity of the spill. Contain liquid spills and prevent the substance from entering waterways. Absorb spills with inert material and place in waste containers labelled for disposal. Wash area with water and detergent, absorb with further inert material and dispose of waste material in an approved landfill.

NOTICE TO BUYER

FMC warrants that this product conforms to the chemical description on the label thereof and if reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of FMC. To the extent permitted at law, FMC shall not be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer.

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Formulated for and distributed by:

FMC New Zealand Limited

6 Clayton Street

Newmarket

Auckland 1023

Freephone: 0800 658 080

www.fmccrop.nz

New Zealand Emergency Telephone

Transport Emergency: 0800 387 668

24 hr Emergency Medical Information: 0800 111 174