NOVALURON GROUP





15

## Insect Growth Regulator Concentrate

#### Insecticide for Indoor and Outdoor Control of:

\*Crickets, Soldier Fly, House Fly and Dump Fly Larvae in \*Cattle Barns, \*Feed Lots and Dairy Barns, \*Hog Farms and \*Horse Barns and for Control of Soldier Fly, House Fly, Dump Fly and Litter Beetle Larvae in Poultry Operations and to reduce the emergence of adult Stable Flies at \*Hay Feeding Sites in cattle pastures Prevents the emergence of adult flies from maggots of: Soldier Flies, House Flies, Stable Flies and Dump Flies. Prevents the emergence of adult beetles from larvae of: Darkling Beetles (Litter, Hide and Carrion Beetles)

For use in controlling emergence of adult listed flies from manure and other fly breeding sites in: \*Cattle Barns, \*Hog Farms, \*Horse Barns \*Incinerators, \*Cattle and \*Horse Manure, \*Non-Farm Animals Stalls, Poultry Buildings, Cage-layer houses, Poultry Houses, \*Refuse Storage Areas, \*Hay Feeding Sites. For use in hay feeding sites in cattle pastures to reduce the emergence of adult stable flies for up to 4 weeks. \*Not for use in California

#### **ACTIVE INGREDIENT:**

ACTIVE INOREDIENT.			/0 DI VVI.
Novaluron: N-[[[3-chloro-4-[1	,1,2-trifluoro-2-(tri	fluoromethoxy)etho	(y]phenyl]amino]carbonyl]-
2,6- difluorobenzamide*			
OTHER INGREDIENTS:			
TOTAL			
*Contains 0.83 lbs. Novaluron	per gallon.		

EPA Reg. No. 53883-348 NET CONTENTS: ONE GALLON EPA Est. No. 53883-TX-002

0/ DV \A/T

Manufactured for: Control Solutions, Inc., 5903 Genoa Red Bluff, Pasadena, Texas 77507

### WARNING - AVISO KEEP OUT OF REACH OF CHILDREN

FIRST AID		
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.	
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.	
	Call a poison control center or doctor for treatment advice.	
IF ON SKIN OR	Take off contaminated clothing.	
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.	
	Call a poison control center or doctor for treatment advice.	
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice.	
	Have person sip a glass of water if able to swallow.	
	Do not induce vomiting unless told to do so by a poison control center or doctor.	
	Do not give anything by mouth to an unconscious person.	
IF INHALED:	ALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration	
	preferably mouth-to-mouth if possible.	
	Call a poison control center or doctor for further treatment advice.	

EMERGENCY ASSISTANCE: Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact SafetyCall<sup>®</sup> International for emergency medical treatment at (866) 897-8050.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

#### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

**WARNING:** Causes substantial but temporary eye injury. Do not get in eyes, on skin or on clothing. Wear protective eyewear such as goggles, face shield or safety glasses. Harmful if absorbed through skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Applicators must wear chemical resistant gloves.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to freshwater and marine invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

#### **DIRECTIONS FOR USE**

# IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING

#### FOR BOTH INDOOR AND OUTDOOR USE.

- Do not allow to enter indoor or outdoor drains
- No permita la entrada a desagues internos o externos.
- Follow proper disposal procedures on this label
- Siga las indicaciones del etiquetado para el desecho apropiado del producto.



- Do not spray the product into fish pools, ponds, streams, or lakes unless for labelled water treatment.
- Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur, unless for labelled sewer or drain or water treatment.
- Do not allow the product to enter any drain during or after application unless for labelled drain treatment.
- Do not apply or irrigate to the point of runoff.
- Do not make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours).
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application.

#### Resistance Management

For resistance management, this product contains a Group 15 insecticide. Any insect population may contain individuals naturally resistant to this product and other Group 15 insecticides. The resistant individuals may dominate the insect/mite population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of this product or other Group 15 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
  - Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact your local sales representative.

#### SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation

#### TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by

increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### SPRAY DRIFT ADVISORIES

<u>Handheld Technology Applications:</u> Take precautions to minimize spray drift.

#### FOR \*CRICKET, LITTER BEETLE, DUMP FLY, HOUSE FLY AND SOLDIER FLY CONTROL

The active ingredient in TEKKO®10 is novaluron, an insect growth regulator. TEKKO® 10 affects only developing immature stages by disrupting the molting process and preventing them from reaching the adult breeding stage. Consequently, fully developed adult stages of pests and beneficial species are not affected. The elimination of adult insects occurs gradually and becomes visible one to two weeks after application. Insects which are already in the adult stage will not be affected. For best results, read all directions thoroughly.

TEKKO®10 is a larvicide with specific and unique properties developed for the control of \*nymphal crickets, litter beetle larvae, dump, house and soldier fly larvae in manure and other breeding sites; dump, house and soldier fly larvae in \*cattle operations, \*hog farms and \*horse barns where horses are not intended for slaughter or food; and control of litter beetle, dump, house and soldier fly larvae in poultry operations. Include appropriate sanitary and management practices to reduce the number and size of insect pest breeding sites. \*Not for use in California

In addition, TEKKO®10 provides control of crickets causing a gradual reduction in the cricket population by interrupting the life cycle of the crickets, and preventing them from reaching the adult breeding stage. The product may also be combined with an adulticide. TEKKO®10 compliments the rapid activity of the adulticide by providing long term control of cricket nymphs before they become breeding adults.

#### USE INFORMATION

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**INSTRUCTIONS FOR USE:** Mix TEKKO®10 with water and apply with spray equipment e.g. any low pressure sprayer typically used for indoor applications as described below.

**SPRAY PREPARATION:** Prepare a diluted spray solution by adding the recommended amount of formulation for each use (indoor, outdoor perimeter, or animal facility), and dilute with the recommended amount of water. For animal facilities, use enough water to assure adequate and compete coverage and penetration of the spray application. To mix, partially fill the mixing container with water, add TEKKO®10, agitate and fill to the final volume. Agitate before each spray. Do not allow spray mixture to stand overnight.

IN CONJUNCTION WITH AN ADULTICIDE INSECTICIDE: TEKKO<sup>™</sup>10 may be combined with an insecticide registered for adult control of \*crickets, control of house, soldier and dump fly larvae in \*cattle operations, \*hog farms and \*horse barns, as well as the control of soldier fly, dump fly, house fly and litter beetle larvae in poultry operations. The combination would provide immediate control of adult crickets, soldier, house and dump flies, and inhibit the development of the immature stages of the soldier, house and dump flies, and crickets. TEKKO<sup>™</sup> 10 inhibits progression to the next \*nymphal stage in crickets for 180 days. This application must conform to accepted use precautions, restrictions and directions for both products. Use TEKKO<sup>™</sup>10 only at specified application rates.

\*Not for use in California

CATTLE AND POULTRY OPERATIONS, HOG FARMS AND HORSE BARNS for horses not intended for slaughter or food

**Application Sites:** TEKKO®10 may be used in controlling the emergence of adult soldier flies, house flies, darkling beetles (litter, hide and carrion beetles), and dump flies from manure and other fly breeding sites in: \*Cattle Barns, \*Hog Farms, \*Horse Barns, \*incinerators, \*cattle and horse manure, \*non-farm animal stalls, poultry buildings, cage layer houses, poultry houses, \*refuge storage areas. TEKKO®10 may also be used to reduce the emergence of adult stable flies at hay feeding sites in cattle pastures for up to 4 weeks. Apply TEKKO®10 only to fly breeding sites. Do not apply to fly resting sites (walls, ceilings, etc.), as it has no effect on adult flies. Do not contaminate feed troughs and water troughs.

\*Not for use in California

Application Method: Coarse Spray – Apply TEKKO®10 directly and evenly on the insect pest breeding sites.

\*Cattle, Horse and Hog Operation Application Schedules: The treatment interval depends on management and housing systems as well as on climatic conditions. In horse barns, hog units and dairies, the reapplication interval is no less than 30 days. If the treatment area is >0.25 acre for each application, do not exceed 8 applications per year at 1.5 fl. oz./1000 ft<sup>2</sup> (0.0097 lbs. A.I./1,000 ft<sup>2</sup>) and/or do not exceed 4 applications per year at 3 fl. oz./1000 ft<sup>2</sup> (0.019 lbs. A.I./1,000 ft<sup>2</sup>). If the treatment area is ≤0.25 acre (10,890 ft<sup>2</sup>), a maximum of 12 applications may be made per year. \*Not for use in California

**Poultry Operation Application Schedules**: In poultry operations, the treatment interval depends on management and housing systems as well as on climatic conditions. It can vary from 10 to 60 days depending on insect population and pressure.

	Rates	
Target Pests	Fl. Oz. /1,000 ft <sup>2</sup>	Application Instructions
	(lbs. A.I./1,000 ft <sup>2</sup> )	
House, Soldier and Dump Fly larvae	1.5 to 3.0 (0.0097 – 0.019)	Apply TEKKO® 10 directly to fly breeding sites around hay bales, dairy barns, cattle feedlots, and other premise areas as listed in the Outdoor Perimeter Treatments section.
Stable Flies	3.0	Apply in sufficient volume of water (up to 20 gals. per 1,000 sq. ft.) to uniformly and thoroughly wet the manure and other target areas; spray volume will vary depending on the depth of manure being treated.
	(0.019)	Apply TEKKO® 10 directly to hay feeding sites in cattle pastures.
		Apply in sufficient volume of water (5 - 10 gals. per 1,000 sq. ft.) to uniformly and thoroughly wet the target area.
		Apply in the spring after cattle have been removed from the site and before fly emergence begins.

#### TEKKO®10 \*Application in Cattle Operations:

\*Not for use in California

#### TEKKO®10 \*Application in Hog Farms and Horse Barns:

Target Pests	Rates Fl. Oz. /1,000 ft <sup>2</sup> (lbs. A.I./1,000 ft <sup>2</sup> )	Application Instructions
Soldier and Dump Fly larvae	0.019)	Apply TEKKO® 10 directly to fly breeding sites around hay bales and other premise areas as listed in the Outdoor Perimeter Treatments section. Apply in sufficient volume of water (up to 20 gals. per 1,000 sq. ft.) to uniformly and thoroughly wet the manure and other target areas; spray volume will vary depending on the depth of manure being treated.

\*Not for use in California

Application Site	Target Pests	Rates Fl. Oz. /1,000 ft² (Ibs. A.I./1,000 ft²)	Application Instructions
Broiler Houses and Layer Houses	Litter beetle larvae	1.5 to 3.0 (0.0097 – 0.019)	Apply TEKKO®10 to the litter surface as a fine mist. Use as little water as possible to get complete surface coverage. Apply 4-6 days prior to bird placement. It is best not to disturb the surface of the litter after the treatment has been applied. For the best results, applications need to be made to the surface of new bedding, or existing litter. If beetle populations are high, it may be necessary to treat the entire floor area of the house. To achieve a faster reduction of the adult beetle population, the concurrent use of an EPA registered adulticide is recommended.
	Soldier and Dump Fly larvae	1.5 to 3.0 (0.0097 – 0.019)	Apply TEKKO®10- by spraying the entire manure area approximately 1 week after manure removal. Repeat treatment after each removal or when fly larvae are found. To achieve a faster reduction of the adult fly population, the concurrent use of an EPA registered adulticide is recommended.
Broiler Houses and Layer Houses	House Fly Iarvae	3.0 (0.019)	Apply TEKKO®10- by spraying the entire manure area approximately 1 week after manure removal. Repeat treatment after each removal or when fly larvae are found. To achieve a faster reduction of the adult fly population, the concurrent use of an EPA registered adulticide is recommended. To maintain control of house flies, reapply every two weeks while conditions favor fly development. Length of time for treatment depends upon management and housing systems as well as on climatic conditions.
	Soldier and Dump Fly larvae	7.5 to 15 (0.049– 0.097)	Apply TEKKO®10- by spraying the entire manure area approximately 1 week after manure removal. Repeat treatment after each removal or when fly larvae are found. To achieve a faster reduction of the adult fly population, the concurrent use of an EPA registered adulticide is recommended.

#### TEKKO®10 Application in Poultry Operations:

#### Use Restrictions:

- 1) Do not apply TEKKO®10 directly to livestock or livestock feed as illegal residues may result.
- 2) Do not feed manure treated with TEKKO®10 to animals.
- 3) Do not contaminate feed troughs and water troughs

- 4) To avoid illegal residues, allow 1 day (24 hours) between last application and slaughter.
- 5) Facility treatments of manure can only be made to areas where cattle and hogs do not have access.
- 6) For poultry broiler operations, apply TEKKO<sup>™</sup> 10 only between production cycles, and not while birds are in the houses.
- 7) For poultry layer operations, do not contaminate feed or water lines.

#### OTHER INDOOR AND OUTDOOR USES

\*OUTDOOR PERIMETER TREATMENTS: Prepare a diluted spray solution by adding 3 ounces (0.019 lbs. A.I.) per gallon of water into any low-pressure sprayer. At the rate of 1 gallon per 1,000 feet (1.2 ounces of finished spray/sq yard), apply in a band 2 to 4 feet adjacent to and around the structure and apply to a height of 2 to 3 feet on the foundation where pests may be active or may find entrance (see approved use sites below).

\*Not for use in California

If the treatment area is > 0.25 acre for each application, do not exceed 8 applications per year at 1.5 fl. oz./1000 ft<sup>2</sup> (0.0097 lbs. A.I./1,000 ft<sup>2</sup>) and/or do not exceed 4 applications per year at 3 oz./1000 ft<sup>2</sup> (0.019 lbs. A.I. /1,000 ft).

If the treatment area is  $\leq 0.25$  acre (10,890 ft<sup>2</sup>) for each application, do not exceed 12 applications per year at 3 fl. oz./1000 ft<sup>2</sup> (0.019 lbs. A.I./1,000 ft<sup>2</sup>).

The reapplication interval is no less than 14 days.

For treatments to control house flies, the 3 fl. oz. (0.019 lbs. A.I.) rate must be used.

\*Use Sites: Commercial buildings and structures and their immediate surroundings and on modes of transport. Permitted areas of use are non-food/non-feed areas of stores, warehouses, transportation equipment, manufacturing sites, industrial buildings, trucks and trailers. \*Not for use in California

**USE RESTRICTIONS:** Do not spray into the air. Do not spray when wind conditions could create a mist to blow back to the applicator. Do not apply this product in or around bodies of water. Keep children and pets away from treated areas until sprays have dried.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited

PESTICIDE STORAGE: Store in a cool dry place away from heat or an open flame. Do not reuse or refill empty container.

PESTICIDE DISPOSAL: Wastes resulting from uses of this product may be disposed of on site, according to label directions, or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill empty container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure 2 more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not pour or dispose of down the drain or sewer. Call your local solid waste agency for local disposal options.

#### LIMITATION OF WARRANTY AND LIABILITY

Read the entire direction for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES, and LIMITATIONS OF LIABILITY.** 

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risk 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 Control Solutions, Inc. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Control Solutions, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Control Solutions, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Control Solutions, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Control Solutions, Inc. election, the replacement of product.

To the extent consistent with applicable law, buyer and user assume all responsibilities for safety and use not in strict accordance with directions.

Control Solutions, Inc. is a member of the ADAMA Group.

Manufactured for: Control Solutions Inc. 5903 Genoa-Red Bluff Pasadena, TX 77507-1041