



# Advion<sup>®</sup> Cockroach

Gel bait

syngenta.

## Insecticide

### FOR USE IN RESIDENTIAL, INSTITUTIONAL, COMMERCIAL, AND INDUSTRIAL AREAS

Use sites include single and multi-family residential buildings, schools, commercial and industrial facilities (including warehouses, apartments, supermarkets, restaurants, motels, hotels, hospitals, food handling/storage establishments), and transportation equipment such as aircraft, trains, ships, boats, buses.

### KEEP OUT OF REACH OF CHILDREN CAUTION/ PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

**DO NOT TREAT AREAS THAT ARE  
EASILY ACCESSIBLE TO CHILDREN  
AND PETS**

#### Active Ingredient:

Indoxacarb: (S)-methyl 7-chloro-2,5-dihydro-2-[[[methoxycarbonyl] [4(trifluoromethoxy) phenyl]amino] carbonyl]indeno[1,2-e] [1,3,4]oxadiazine-4a-(3H) carboxylate . . . . . 0.6%

Other Ingredients . . . . . 99.4%

Total: 100.0%

EPA Reg. No. 100-1484

EPA Est. 54450-IL-001ABW

EPA Est. 65335-RI-001<sup>NSP</sup>

(Superscript is first three letters of batch code on container)

Product of USA

**SCP 1484A-L1A 0414  
4038855**

**4 x 1.06 oz. (30g)  
syringes**

**Net Weight  
Non-refillable Container**



(01) 0 07 02941 53206 9

# Advion® Cockroach Gel Bait

## FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

## HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance  
(Human or Animal) Or Chemical Emergency Assistance  
(Spill, Leak, Fire or Accident) Call **1-800-888-8372**

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### Environmental Hazards

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.

### Physical and Chemical Hazards

Do not use this product in or on electrical equipment where a possibility of shock hazard exists.

## DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

## PRODUCT INFORMATION

Advion® Cockroach Gel Bait is designed to control pest species of cockroaches such as German, American, Australian, Smoky-Brown, Brown, Asian, Oriental, and Brown-Banded.

### Use Instructions and Precautions:

**Do not treat areas that are easily accessible to children and pets.**

1. Advion Cockroach Gel Bait can be used indoors or outdoors applied as a crack and crevice treatment within residential homes, industrial facilities, offices, warehouses, commercial kitchens, hospitals, schools, nursing homes, hotels, buses, trains, aircraft, retail and commercial establishments, and other areas infested with cockroaches.
2. Apply Advion Cockroach Gel Bait to areas frequented by cockroaches such as between different elements of construction, between equipment and floors, openings leading into voids and hollow spaces in floors, walls, ceilings, equipment legs and bases, around plumbing pipes, doors and windows, and behind and under appliances, cabinets, sinks, closets, and any other equipment that cockroaches are typically known to hide.
3. Do not apply Advion Cockroach Gel Bait to surfaces recently treated with residual sprays.
4. Do not apply residual sprays to surfaces treated with Advion Cockroach Gel Bait.
5. Inspect bait placements during follow-up inspections and apply fresh bait as needed.
6. Do not apply to surfaces that food contacts.
7. Do not allow open foods to contact gel material.

### Treatment Rates for All Uses

- For heavy infestations of cockroaches, apply 3 to 5 spots of Advion Cockroach Gel Bait per 10 linear feet.
- For light to moderate infestations of cockroaches, apply 1-3 spots of Advion Cockroach Gel Bait per 10 linear feet.
- Each spot of ADVION® cockroach gel bait must equal about 0.5 grams (approx. 1/4" diameter)
- For all levels of cockroach infestations, when a bead of Advion Cockroach Gel Bait is used, apply a small thin bead that is less than 1/8" wide and approximately 2 inches long.

### Indoor Use Directions

- Infested areas must be carefully inspected to determine overall infestation levels, locations of harborage areas, and most appropriate application points.
- Apply Advion Cockroach Gel Bait as a small spot of material, approximately 0.5 grams (approx. 1/4" in dia.), to areas not able to be contacted by children or pets.
- Several small applications distributed within an area are more effective than 1 or 2 applications of large quantities. In some cases a small thin bead (less than 1/8" wide and 2" long) may be appropriate such as between construction elements or other cracks and crevices.
- Indoor applications include cracks and crevices along walls or floors, behind or under equipment, under tables, within framing of tables or furniture, around sinks, within or near garbage collection areas, attics, crawl spaces, and cracks and crevices in cabinets.
- Inspect Advion Cockroach Gel Bait placements periodically for consumption or attractiveness and reapply as needed.

# Advion® Cockroach Gel Bait

## Applications in Nonfood/Nonfeed Handling Areas

Advion Cockroach Gel Bait is designed for use as a spot or crack and crevice treatment to control cockroaches in residential structures and the non-food /non-feed areas of commercial, industrial, public and institutional buildings/structures, including restaurants, warehouses, food processing plants, supermarkets, hospitals, nursing homes, motels, hotels, schools, laboratories, computer facilities, aircraft, buses, boats/ships, trains, pet shops and zoos.

Nonfood/non-feed areas include areas such as garbage rooms, laboratories, floor drains (to sewers), entries, and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage (after bottling or canning). Refer to section below for use directions and restrictions when making applications in food/feed handling areas of Food/Feed Handling Establishments.

## Applications in Food/Feed Handling Areas

Application to food/feed areas of food/feed handling establishments may only be made as a crack and crevice treatment only. Apply Advion Cockroach Gel Bait directly into cracks and crevices by placing the bait dispenser tip approximately 1/2 inch into cracks, crevices, holes and similar openings where cockroaches are found or are entering.

Food and feed handling areas include areas for receiving, storage, packing (canning, bottling, wrapping, boxing), preparing edible waste storage, and enclosed processing systems (mills, dairies, edible oils, syrups). Serving areas are also considered a food/feed area when food is exposed and facility is in operation.

- Do not apply Advion Cockroach Gel Bait to areas where food/feed, food utensils or food processing surfaces may come into contact and become contaminated.
- Do not apply Advion Cockroach Gel Bait to areas that are routinely washed such as cracks and crevices in tops of tables, food/feed preparation and prepared food holding surfaces as bait could be removed by the washing.
- Do not apply Advion Cockroach Gel Bait to surfaces where the temperature exceeds 120-130°F because this could cause the bait to liquefy and lose effectiveness.
- Examples include, but are not limited to, parts of stoves, ovens, grills, fume hoods, saunas, heat lamps, coffee urns, steam tables, toasters, fryers, dishwashers, and hot water pipes.
- Use good application practice to avoid movement of Advion Cockroach Gel Bait to exposed surfaces used for food preparation.
- If Advion Cockroach Gel Bait contacts an exposed surface, first remove as much of the gel bait as possible, then wash with soap and water.

## Outdoor Use Directions:

A thorough inspection around a structure may reveal areas where cockroaches are gaining access. Attempts should be made to remove the access. Advion Cockroach Gel Bait may also be applied as a spot or thin bead (see above) to pest entry sites such as along windows, doors, between construction elements, sewer areas, adjacent trees which harbor cockroaches, along walls, garbage holding areas, or suitable placement site acting as a cockroach harborage. Place baits in such a way as to reduce the potential of subsequent human contact. Inspect Advion Cockroach Gel Bait placements periodically and apply fresh bait as needed.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

### Pesticide Storage

Store in cool, dry place inaccessible to children and pets.

### Pesticide Disposal

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

### Container Disposal

**Nonrefillable Container:** Do not reuse or refill this container. Offer for recycling if available. Place empty bait dispensers in trash. If partially filled, wrap in newspaper and discard in trash or call your local solid waste authority for disposal instructions.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. 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 manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.



## Advion® Cockroach Gel Bait

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and of Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

---

Advion®, the ALLIANCE FRAME   
the SYNGENTA Logo and the PURPOSE ICON   
are Trademarks of a Syngenta Group Company

©2014 Syngenta

For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.
--

Manufactured for:  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, North Carolina 27419-8300

**SCP 1484A-L1A 0414**  
**4038855**

## ADVION® COCKROACH GEL BAIT

Date: 5/19/2017  
 Replaces: 4/13/2017

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **ADVION® COCKROACH GEL BAIT**

Product No.: A20379A  
 Use: Insecticide  
 Manufacturer: Syngenta Crop Protection, LLC  
 Post Office Box 18300  
 Greensboro NC 27419

Manufacturer Phone: 1-800-334-9481

**Emergency Phone: 1-800-888-8372**

### 2. HAZARDS IDENTIFICATION

Classifications: Skin Sensitizer: Category 1B  
 Signal Word (OSHA): Warning  
 Hazard Statements: May cause an allergic skin reaction

Hazard Symbols:



Precautionary Statements: Avoid breathing mist, vapors, spray.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves, protective clothing, eye protection.  
 If on skin: Wash with plenty of soap and water.  
 See Section 4 First Aid Measures.  
 If skin irritation or rash occurs: Get medical advice.  
 Wash contaminated clothing before reuse.  
 Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Other inert ingredients	Other inert ingredients	Trade Secret	99.4%

**ADVION® COCKROACH GEL BAIT**

Date: 5/19/2017  
Replaces: 4/13/2017

---

methyl (4aS)-7-chloro-2,5-dihydro-2- [[methoxycarbonyl]4- (trifluoromethoxy)phenyl]amino]carbonyl]in deno[1,2-e][1,3,4]oxadiazine-4a(3H)- carboxylate	Indoxacarb Technical	173584-44-6	0.6%
---	----------------------	-------------	------

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

---

**4. FIRST AID MEASURES**

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

**Ingestion:** If swallowed: First aid measures are not normally required. If you feel unwell or have concerns, contact Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Eye Contact:** If in eyes: Rinse eyes with water. First aid measures are not normally required. If concerned, call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Skin Contact:** If on skin or clothing: First aid measures are not normally required. Wash material from the skin. If concerned, call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Inhalation:** If inhaled: First aid measures are not normally required. If you feel unwell or have concerns, contact Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Most important symptoms/effects:

Allergic skin reaction

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

---

**5. FIRE FIGHTING MEASURES**

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

---

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g.

**ADVION® COCKROACH GEL BAIT**

Date: 5/19/2017

Replaces: 4/13/2017

commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

**7. HANDLING AND STORAGE**

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Not Applicable

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Other inert ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Indoxacarb Technical	Not Established	Not Established	1 mg/m <sup>3</sup> 8hr & 12hr TWA (respirable)	Manufacturer

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely use dust-proof chemical goggles.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:

A respirator is not normally required when handling this substance.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Yellow gel

Odor: None

Odor Threshold: Not Available

## ADVION® COCKROACH GEL BAIT

Date: 5/19/2017  
 Replaces: 4/13/2017

pH: 6.08  
 Melting point/freezing point: Not Available  
 Initial boiling point and boiling range: Not Available  
 Flash Point (Test Method): Not Available  
 Flammable Limits (% in Air): Not Available  
 Flammability: Not Available  
 Vapor Pressure: Indoxacarb Technical Not Available  
 Vapor Density: Not Available  
 Relative Density: 1.0755 g/ml @ 68°F (20°C)  
 Solubility (ies): Indoxacarb Technical Not Available  
 Partition coefficient: n-octanol/water: Not Available  
 Autoignition Temperature: Not Available  
 Decomposition Temperature: Not Available  
 Viscosity: Not Available  
 Other: Not Available

### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive.  
 Chemical stability: Stable under normal use and storage conditions.  
 Possibility of hazardous reactions: Will not occur.  
 Conditions to Avoid: None known  
 Incompatible materials: None known.  
 Hazardous Decomposition Products: Not Available

### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Rash, redness or itching

Delayed, immediate and chronic effects of exposure: Allergic skin reaction

#### Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	> 5000 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 5000 mg/kg body weight
Inhalation:	Inhalation (LC50 Female Rat) :	> 5.5 mg/l air - 4 hours
Eye Contact:	Non-Irritating (Rabbit)	



**ADVION® COCKROACH GEL BAIT**

Date: 5/19/2017  
 Replaces: 4/13/2017

Skin Contact: Non-Irritating (Rabbit)  
 Skin Sensitization: A skin sensitizer (Guinea Pig)

Reproductive/Developmental Effects

Indoxacarb Technical: Animal testing showed effects on reproduction at levels equal to or above those causing parental toxicity.  
 Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

Chronic/Subchronic Toxicity Studies

Indoxacarb Technical: The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.  
 Inhalation; rat; Incoordination, mortality, red blood cell destruction causing abnormal decrease in number of red blood cells (anemia)

Carcinogenicity

Indoxacarb Technical: Animal testing did not show any carcinogenic effects.  
 Tests on bacterial or mammalian cell cultures did not show mutagenic effects.  
 Did not cause genetic damage in animals.

Chemical Name	NTP/IARC/OSHA Carcinogen
Other inert ingredients	No
methyl (4aS)-7-chloro-2,5-dihydro-2- [[[(methoxycarbonyl)[4- (trifluoromethoxy)phenyl]amino]carbonyl]inden o[1,2-e][1,3,4]oxadiazine-4a(3H)-carboxylate	No

Other Toxicity Information

None

Toxicity of Other Components

Other inert ingredients  
 Not Applicable

Target Organs

Active Ingredients

Indoxacarb Technical: Nervous system

Inert Ingredients

Other inert ingredients: Not Applicable

**12. ECOLOGICAL INFORMATION**

Eco-Acute Toxicity

Indoxacarb Technical:  
 Fish (Rainbow Trout) 96-hour LC50 0.65 mg/l  
 Bird (Bobwhite Quail) LD50 Oral 98 mg/kg  
 Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.60 mg/l

Environmental Fate

## ADVION® COCKROACH GEL BAIT

Date: 5/19/2017

Replaces: 4/13/2017

### Indoxacarb Technical:

Information given is based on data on the components and the ecotoxicology of similar products.

Environmental Hazards: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

### 14. TRANSPORT INFORMATION

#### DOT Classification

Ground Transport - NAFTA

Not regulated

#### Comments

Water Transport - International

Not regulated

Air Transport

Not regulated

### 15. REGULATORY INFORMATION

#### Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Caution: Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

#### EPA Registration Number(s):

100-1484

#### EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: None

#### CERCLA/SARA 304 Reportable Quantity (RQ):

Not Applicable

#### RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

#### TSCA Status:

## ADVION® COCKROACH GEL BAIT

Date: 5/19/2017  
Replaces: 4/13/2017

Exempt from TSCA, subject to FIFRA

### 16. OTHER INFORMATION

#### NFPA Hazard Ratings

Health: 2  
Flammability: 1  
Instability: 0

#### HMIS Hazard Ratings

Health: 2  
Flammability: 1  
Physical Hazard: 0

Syngenta Hazard Category: C,S

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 2/25/2013  
Revision Date: 5/19/2017  
Section(s) Revised: 2,4,11,16

Replaces: 4/13/2017

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

PROFESSIONAL PEST MANAGEMENT

# UNIQUE CHEMISTRY OFFERS SUPERIOR CONTROL

Technical Bulletin

FOR LIFE UNINTERRUPTED™

 **Advion® Cockroach**  
Gel bait

**syngenta®**

TM

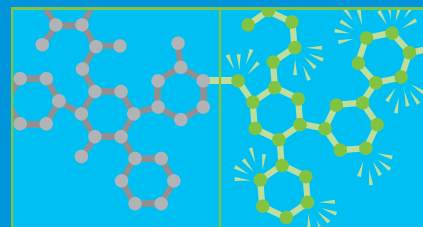


## A SUPERIOR FORMULATION FOR THOROUGH COCKROACH CONTROL

Cockroaches are unsightly and can spread bacteria and allergens, which can be problematic to your customers. Syngenta Professional Pest Management offers **Advion® cockroach gel bait** to achieve targeted results of multiple cockroach species, including gel bait-averse cockroaches. With Advion, your customers can enjoy their property without the nuisance and worry of cockroaches.

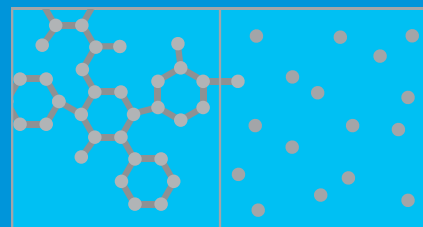
### A Differentiating Mode of Action

Advion can effectively differentiate between target insects and non-target insects. The mode of action in Advion targets the insect's metabolic process by bioactivating the active ingredient, *indoxacarb*, within target insects.



#### Target Insects

Upon entering an insect, *indoxacarb* is converted into a new molecule with insecticidal properties. This process is activated specifically by the insect's own enzymes.



#### Non-Target Insects

The bioactivation process of Advion is not as efficient within most non-target insects, so they are less likely to be affected by the product.

### Defense Against Cockroaches

The slight delay in cockroach mortality caused by the non-repellent active ingredient, *indoxacarb*, allows cockroaches to consume the bait and return to their harborage site to contaminate other cockroaches. Research at Purdue University documents Advion cockroach gel bait as the first bait to prove tertiary kill. One cockroach exposed to Advion can carry it to another cockroach, which can then expose it to a third cockroach. This process unleashes a three-step chain reaction resulting in the control of up to 54 cockroaches.

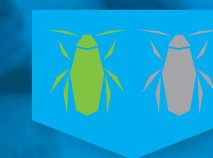
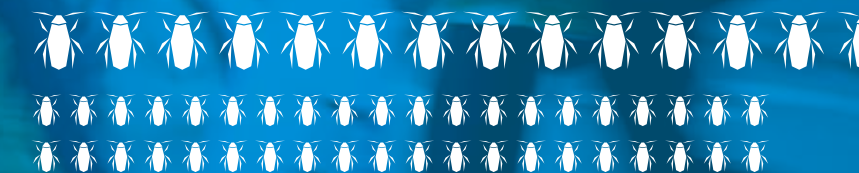
**Figure 1** shows cockroach population growth rates over a three-month period. **Figure 2** demonstrates the effect Advion can have through its exponential control.



**Figure 1**

Population Dynamics: Two adult cockroaches can reproduce up to 54 cockroaches in 3 months.

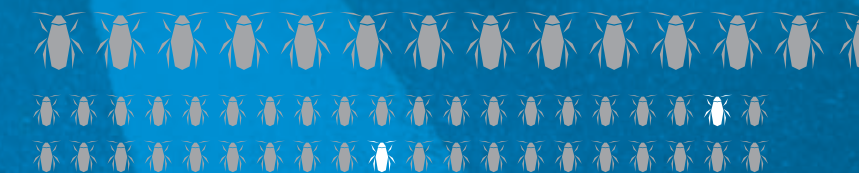
Source: Reid, B., Reiersen, D., Ross, M., Rust, M., and Owens, J. 1995. *Understanding and Controlling the German Cockroach.*



**Figure 2**

Advion Performance: Studies show that one cockroach exposed to Advion cockroach gel bait can kill 54 - a rate comparable to the growth rate of cockroach populations.

Source: Buckowski, G., Scherer, C., and Bennett, G. 2008. "Horizontal transfer of bait in the German cockroach: Indoxacarb causes secondary and tertiary mortality." *Journal of Economic Entomology* 101(3): 894-901



 Carrier  Alive  Dead



## Highly Attractive Formulation

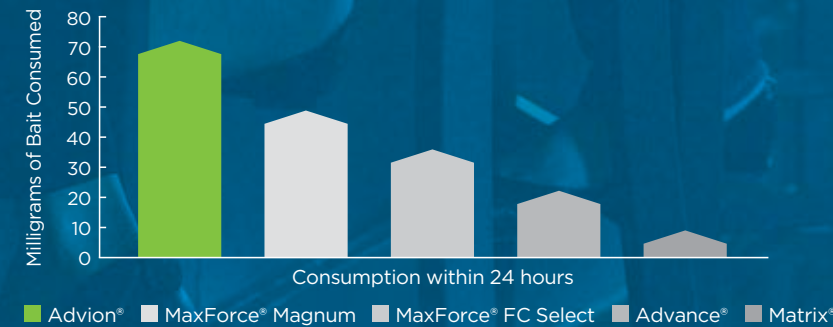
Some baits dry and harden after application, making them less palatable to cockroaches. However, studies show Advion remains palatable to cockroaches for up to three months after application.

### German Cockroach Consumption Trials<sup>1</sup> – Stine-Haskell Research Center

Baits are designed for targeted insect consumption, so the appeal of gel baits is a critical part of performance.

Advion appealed to more than 75 percent of German cockroaches.

Source: Stine-Haskell Research Center, PR086142



<sup>1</sup>Trials reflect treatment rates and mixing partners commonly recommended in the marketplace.

## Gel Bait-Averse Populations

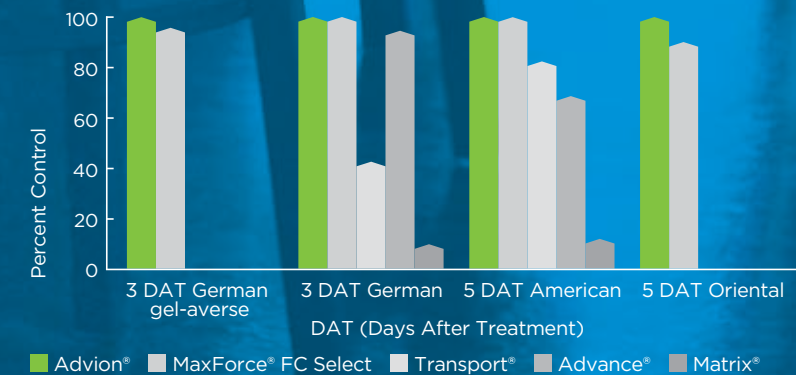
Research shows the bait matrix of some gel bait products can lose its appeal to cockroaches. The formulation of Advion was developed to specifically overcome gel bait-aversion in tough cockroach populations. Furthermore, because gel bait-aversion is a form of resistance, Syngenta continues to monitor any change in response to help ensure superior performance for the future.

### Gel Bait-Averse, German, American and Oriental Cockroach Laboratory Trial<sup>1</sup> – Delaware, Indiana and Virginia

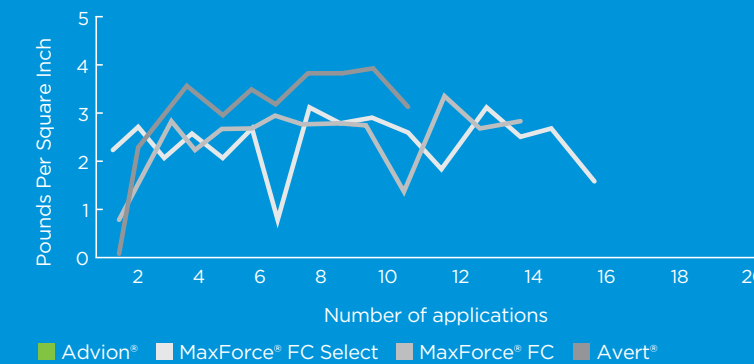
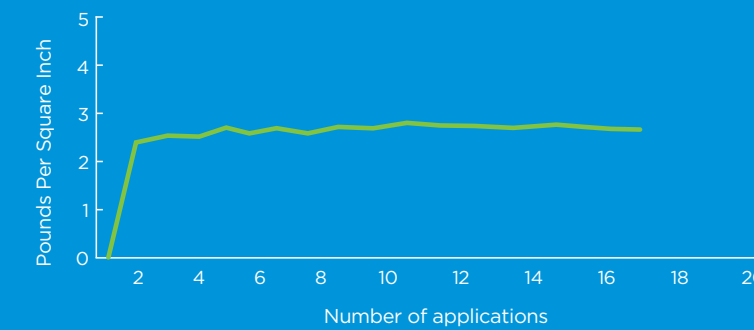
This chart illustrates bait appeal and performances on some of the most dominant and problematic cockroach species.

Advion provided 100 percent control of all prevailing cockroach species.

Source: Stine-Haskell Research Center, PR076106, PR076107, Purdue University, PR057606, Virginia Tech, PR047106



## Consistency of Application Dispensing



Source: DD2005, DuPont Applications Technology Center

## Easy and Consistent Application

In application tests, using a mechanism that measures the pressure required to pull a bait-gun trigger for product dispensing, only Advion applications were consistent pull after pull. Competitor gel bait formulations showed viscosity variations and included air bubbles. With the smooth formulation of Advion, you can feel confident that you are applying the right amount of gel, even in areas hidden from view.

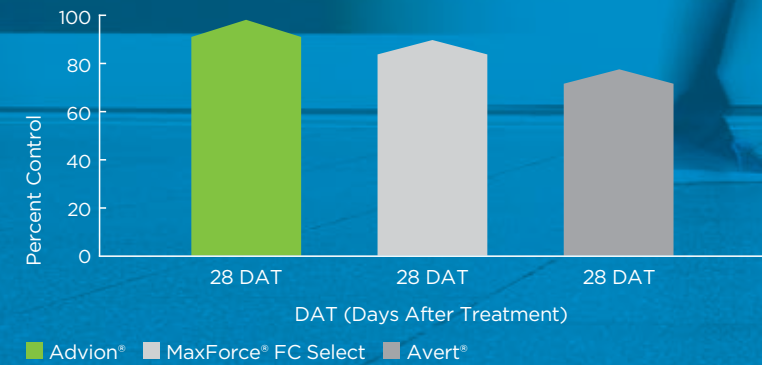


### American Cockroach Field Trial<sup>1</sup> – Indiana

This 28-day simulated trial best predicts how products will perform with alternative food sources in a traditional cockroach environment.

Advion maintained 100 percent control when competing with alternative food sources.

Source: Purdue University, PR067102



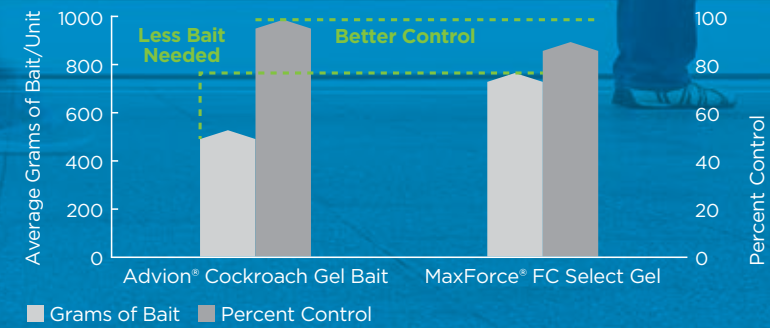
<sup>1</sup> Trials reflect treatment rates and mixing partners commonly recommended in the marketplace.

### Greater Control with Less Bait: German Cockroach Field Trial<sup>1</sup> – Texas

This chart demonstrates field performance in a heavily infested housing complex. Each product treated the same number of housing units with similar infestation levels.

With its low use rate, Advion still maintained 100 percent control of German cockroaches.

Source: Texas A&M University, PR067402



### ADVION COCKROACH GEL BAIT PROFILE

- ▶ Begins controlling cockroaches in 24 hours
- ▶ Proprietary, high-consumption bait matrix
- ▶ Non-repellent chemistry
- ▶ Performs well on all major cockroach species
- ▶ Approved for use in food-handling establishments, as directed by the product label

Advion cockroach gel bait was formulated to achieve targeted results quickly, reliably and with minimum disruption to normal routines.

To learn more about Advion cockroach gel bait, please visit [www.SyngentaPMP.com](http://www.SyngentaPMP.com) or call 1-866-SYNGENT(A) (796-4368).



©2013 Syngenta. **Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties. Please check with your state or local Extension Service to ensure registration status.** All trademarks displayed or otherwise used herein are trademarks of a Syngenta Group Company or third parties. Syngenta Customer Center: 1-866-SYNGENT(A) (796-4368).

GS 433.11142 (10/13)

SCP 201-00006-B