Gel Bait-Averse Populations

Research shows that the bait matrix, or formulation, of some gel bait products is no longer appealing to certain cockroaches, meaning cockroaches will not feed on the bait. Advion Cockroach Gel is designed to overcome this phenomenon. The formulation for Advion Cockroach Gel was developed with technology to specifically overcome the gel bait-aversion behaviour exhibited by these tough cockroach populations. Further, Syngenta is committed to monitoring any change in response in order to assure superior performance for years to come.

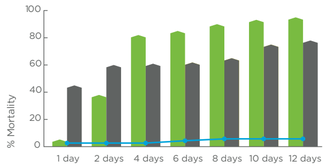
Product Dispensing

Advion Cockroach Gel exhibits a smooth, consistent viscosity in application tests. Using a mechanism that tracked the pressure required to pull a bait-gun trigger for product dispensing, Advion Cockroach Gel applications were consistent pull after pull. Because Advion Cockroach Gel has such a smooth formulation, you can feel confident applying the correct amount of gel, even in areas hidden from direct view.

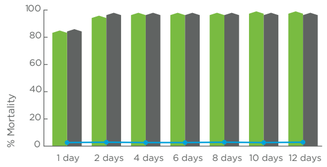
Performance

Numerous studies with Advion Cockroach Gel have shown that Advion provides excellent control of the key cockroach pest species commonly causing problems in the UK. Trials conducted in the UK against the Oriental Cockroach (*Blatta orientalis*) and then the German Cockroach (*Blattella germanica*) are summarised in order to indicate this efficacy.

Control of Oriental Cockroach



Control of German Cockroach



Advion Cockroach Gel bait efficacy

Competitor gel bait efficacy

Untreated

FOR LIFE UNINTERRUPTED™

syngenta®

PROFESSIONAL PEST MANAGEMENT

ATTRACTIVE TO COCKROACHES.

ATTRACTIVE TO YOUR BUSINESS.

Bioactivated chemistry combined with a proprietary, high consumption matrix for comprehensive control of all cockroach pest species.

Advion® Cockroach Gel

syngenta®

™

Advion® Cockroach Gel benefits

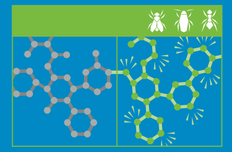
Advion® Cockroach Gel bait combines a proprietary high-consumption bait matrix with a unique, non-repellant active ingredient that bioactivates inside cockroaches to its active form. Studies show that this formulation quickly attracts cockroaches, even in situations with existing food sources. Advion Cockroach Gel can be used in a wide variety of application sites.

- Timely & comprehensive control of all key cockroach species
- For indoor and outdoor use
- Labeled for food-handling establishments
- Highly palatable formulation
- Bio-activation by cockroach enzymes

Winning chemistry

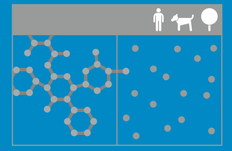
Advion Cockroach Gel contains a proprietary active ingredient that is the only current member of its class of chemistry, the oxadiazines, that is commercially available as an insecticide.

It performs like no other insecticide, offering a mode of action for insect control that presents a benefit to pest management professionals by relying on the target insect pest's metabolic activation process. This process is significant because metabolic activation allows the active ingredient in Advion Cockroach Gel to effectively differentiate between insect pest and non-target organisms, like mammals.



Target Organisms

Through chemical optimisation methods, scientists engineered the active ingredient in Advion to be bioactivated and utilise the insect pest's own enzymes for metabolic conversion to its active form.



Non-Target Organisms

Because natural enzymes found in insect pests are the key to its biological effectiveness. Advion can effectively differentiate between target insect pests and nontarget species.

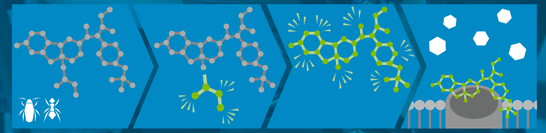
Revolutionary active ingredient

Few insecticides utilise natural enzymes found in insect pests to aid in changing their molecular structure for enhanced biological effectiveness. Through chemical optimisation methods, scientists designed the active ingredient in Advion Cockroach Gel to be bio-activated by target insects. The bio-activation process involves internal insect enzymes once the compound is ingested or absorbed by the target pest. Because of this mode of action, the active ingredient can be bio-activated through this insect pest metabolism-driven process to its active form.

This means the active ingredient becomes active inside the target insect pest. Further, as this conversion process to active form occurs inside insect pests, pest management professionals can better balance targeted insect pest control and its impact on the environment.

Advion Cockroach Gel is specifically formulated to be attractive to all key pest species of cockroaches, including:

- **Oriental cockroach** *(Blatta orientalis)*
- **German cockroach** *(Blatella germanica)*
- **American cockroaches** *(Periplaneta americana)*



Phase 1 Exposure
The insect ingests or comes into direct contact with indoxacarb.

Phase 2 Enzymes
The insect's enzymes break down indoxacarb, cleaving off the carbomethoxy group.

Phase 3 Active
The resulting molecule is active compond – the more powerful form.

Phase 4 Death
The active molecule binds to the target site, blocking the insect's sodium channels. The insect experiences paralysis followed by death.

The slight delay in mortality caused by the active ingredient in Advion Cockroach Gel allows cockroaches to consume the bait and return to the harbourage site to contaminate other cockroaches resulting in significant reductions in infestation levels via horizontal transfer.

Advion Cockroach Gel

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