



# Need to Know

- Straight talk for professionals about pests and pest control products

Volume 3  
No. 2  
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## Maxforce® FC Select Roach Killer Bait Gel sets the standard for cockroach control! Claims from new competitive products don't stand up!

Two new cockroach gels, Transport™ Roach Bait (0.35% acetamiprid, FMC Corporation) and Matrix™ Roach & Ant Bait (2.15% hydramethylnon, Zoëcon® Professional Products) are both making bold claims against the "leading brand". Neither company provided much evidence to support their claims so we decided to put them to the test.

The first thing we noticed is that both Transport and Matrix labels state that the products contain peanuts. You should know that peanut allergy is one of the most common food allergies, affecting 1.5 million Americans, according to the American Academy of Allergy, Asthma & Immunology. Even in tiny amounts, peanut protein can cause severe reactions. Peanuts are responsible for nearly 100 deaths and 15,000 emergency room visits each year, says the Food Allergy & Anaphylaxis Network, a nonprofit group based in Fairfax, Virginia.

For your information, **Maxforce baits - by design - do not contain peanut products.** At Bayer, we are well aware of this issue because we regularly receive enquires from concerned consumers asking whether or not our baits contain peanut products.

### Head to Head Comparison

Data in this bulletin compares each product against three different German cockroach strains collected with the help of PMPs from problem accounts and maintained by Bayer Environmental Science at our Development and Technical Center in Clayton, North Carolina. Bayer has studied more than 50 different strains of German cockroaches to help solve the problem of bait aversion. The following strains were selected to provide product comparisons across a range of different degrees of bait aversion.

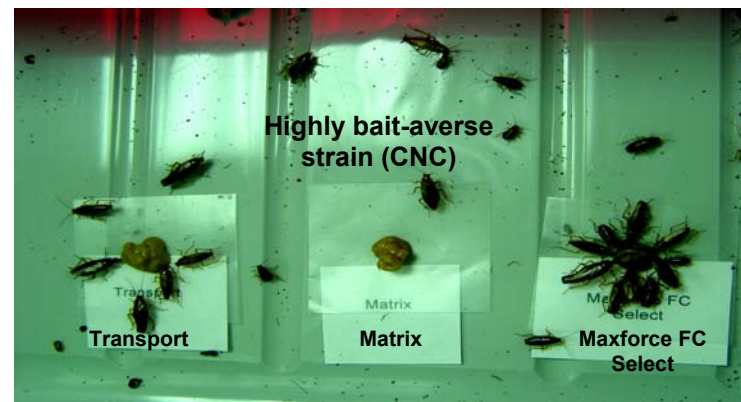
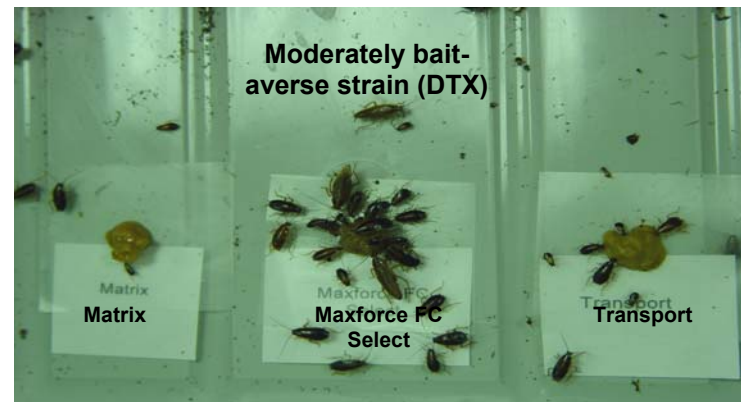
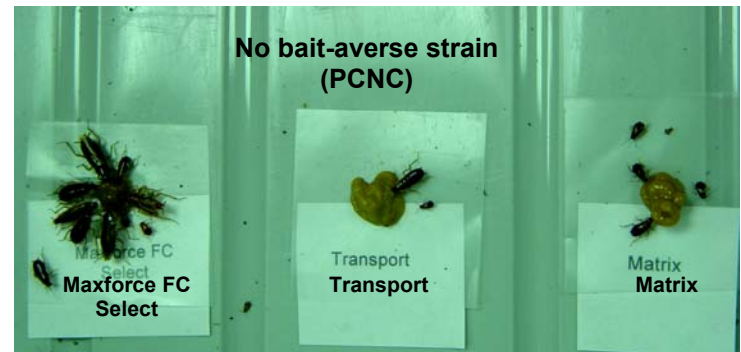
The strains tested were:

- 1) PCNC: from a hog farm in Pender County, North Carolina, is resistant to pyrethroids, but not bait-averse;
- 2) DTX: from a restaurant in Dallas, Texas, displays moderate aversion to most gel baits; and
- 3) CNC: from a restaurant in Charlotte, North Carolina, possess a very high level aversion to most gel baits.

**1. Bait preference test:** When given a choice in side-by-

side testing, cockroaches preferred Maxforce FC Select gel regardless of whether the strain was a bait averse or not.

(Note: Position of each bait placement was changed in different replicates to remove any variance or preference due to proximity.)



24h- Bait Consumption Ratio	Maxforce FC Select versus	
	Transport	Matrix
DTX	4.5 x	17 x
CNC	4 x	20 x

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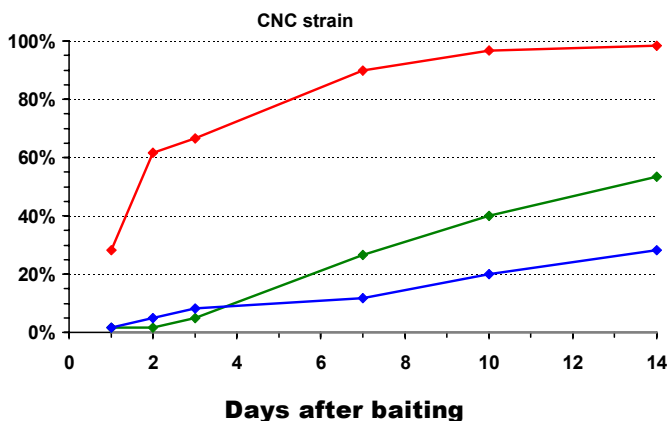
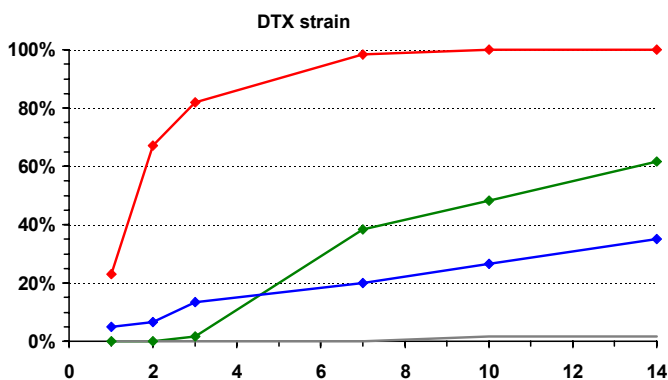
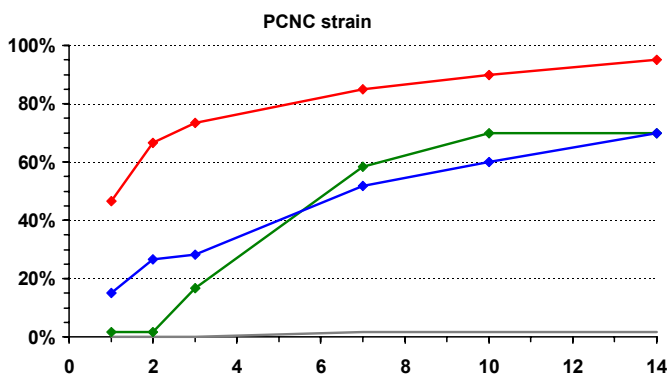
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Continue from previous page.

### Efficacy Comparison: cumulative mortality

**FC Select** **Transport** **Matrix** **untreated**



**2. Performance:** In a replicated efficacy study, Maxforce FC Select provided excellent control of each strain. Both Transport and Matrix did not perform as well against each bait-averse strain and the pyrethroid resistance non-bait-averse PCNC strain (see charts on left).

### Summary

- Maxforce FC Select Gel controls both normal and bait adverse German cockroaches.
- Bait-averse German cockroach strains in this study clearly showed significant aversion to both Transport and Matrix gel baits.
- Transport and Matrix did not provide as much control of the non-bait averse, pyrethroid resistant strain (PCNC) in this test.

### Research Commitment

Bayer Environmental Science is dedicated to winning the war against cockroaches, one battle at a time. Over the last 14 years, cockroach bait aversion has become an important issue on three different occasions, and each time, Maxforce has risen to the challenge. Bayer's research and development team has the expertise, has committed the resources and will continue to study bait aversion. So the next time roaches change their behavior - you will be ready to win the battle, again!

Contributed by: *Dr. Nonggang Bao & Deborah Koufas*

Transport is a trademark of Nippon Soda Co., Ltd.  
Matrix Roach and Ant Bait is a trademark of Wellmark International.  
Zoëcon is a Wellmark International Brand.

