

Exosect is actively focussed on the development and sales of Intelligent Pest Management solutions. Our innovative and cost-effective products help food producers and processors actively reduce their use of insecticides. Our goal is to assist our customers achieve zero pesticide residues at their sites and produce high quality food for the consumer.

Our products are used globally in a wide range of sectors including crop protection, (agriculture, horticulture and stored products), apiculture, amenity and public health.

For more information on Exosect and its products visit:

www.exosect.com



Technical Guide

Cockroach Control



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Contains a pesticide free, food based lure, attractive to all key species of cockroaches

Unique design enables capture of nymphs in addition to adults for faster control

Large, robust size is ideal to catch and retain a high number of cockroaches between inspections

Advantages of Exoroach® traps

Exoroach is a pesticide free environmentally friendly cockroach trap. It controls nymphs as well as adults and can be used as a stand alone system or to monitor infestations for auditing purposes.

Durable plastic casing, suitable for areas with high humidity

Helps pinpoint sources of infestation

Works continuously 24/7 and is easy to service

Unique method of trapping and preventing re-infestation

Exoroach® trap offers a simple and natural catching mechanism. Placed near to where cockroaches have been seen, the insects will encounter the Exoroach trap as they follow their normal foraging activity looking for food and harborage sites, particularly at night. Sensing the food lure tablet provided, they will be attracted into the trap. On entering, they climb up the ramp onto the specially designed bridge treated with Entostat™ powder. Particles of Entostat cling to the cockroach feet and tarsal segments, causing the cockroach to lose grip and fall onto the glue board below, from which they cannot escape.

The use of insecticidal gel baits and insecticide sprays is at present the most common method employed to control cockroaches. Increased public concerns regarding the safety of pesticides and their effect upon human health and the environment, together with the increasing problem of cockroach resistance to insecticides, have resulted in a demand for effective, environmentally positive methods of control.

Controls all life stages

- **Holds at least 1000 cockroaches**
Enables long service intervals, reducing associated labour and costs
- **Controls nymphs and adults**
The lure is attractive to nymphs as well as adult cockroaches
- **Glueboard fills from centre outwards**
The whole glueboard is utilised, avoiding wasted space, extending usage period and saving costs
- **Waterproof base**
Essential for hospitals, slaughter houses, breweries, kitchens, etc.
- **Pesticide free**
No user qualifications needed providing increased flexibility and reduced labour costs
- **Robust design**
Ensures long usage life in challenging environments
- **Captures and retains cockroaches**
Capturing cockroaches (including gravid females) means hatching nymphs are retained. Catching one gravid female prevents re-infestation of approx. 42 new cockroaches



Uses Entostat powder technology. Entostat is hydrophobic and unaffected by high humidity



Exoroach product components

Exoroach trap

- 1 Trap in 3 pieces
- 1 Glue board
- 1 Bridge
- 1 Sachet of Entostat™ powder
- 1 Applicator bag
- 1 Food lure tablet

Exoroach Service Kit

- Food lure tablet
- Glue board
- Entostat powder for bridge

Assembled trap:

- Height 75mm
- Length 415mm
- Width 220mm



How to assemble and deploy Exoroach® traps

Exoroach placement advice

Place the Exoroach trap in warm, damp, dark locations; where adults have been seen, along the edge of rooms and under furniture or equipment, or where there are signs of egg cases (oothecae). Check the Exoroach 4 – 72 hours after first placement, and if no cockroaches are trapped, move the Exoroach to an alternative location. The trap can be moved to several locations over a period of weeks to provide maximum trap catch.

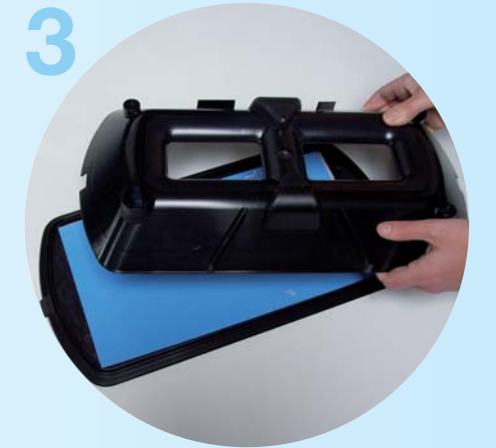
Over time the Exoroach becomes more attractive as trapped cockroaches leave aggregation pheromone inside the trap. Do not spray or otherwise treat the trap with pesticide.



Remove the white lid of the trap using a coin or similar implement.



Unclip the base of the unit. Peel the protective cover from the glue board, being careful not to touch the adhesive side of the sheet, as it is very sticky.



Place the adhesive sheet into the base of the unit with the "sticky" surface up.



Clip the trap onto the flat base.



Empty the sachet of Entostat™ powder into the large plastic bag. Take the bridge and place inside the bag, seal it and shake well to coat the Entostat powder over the entire surface of the bridge.



Give the bridge a final shake to remove excess powder. Remove the coated bridge from the packet touching only the raised lugs. Clip the bridge onto the base and wipe the base free of powder.



Remove the lure tablet from the wrapper and place it into the recess in the centre of the bridge.

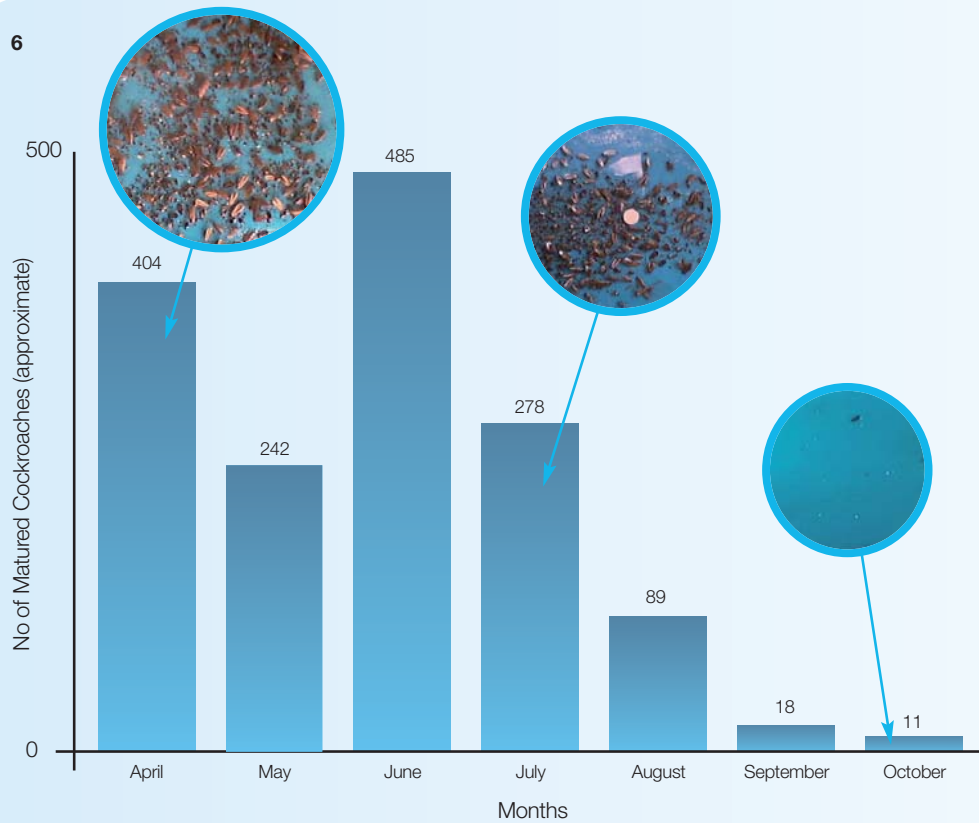


Line up the locking mechanisms as shown on the white lid. Press down into the slots on the trap wall and turn through 90° to the locked position.



Make sure that the trap cover is securely locked into place.





1. Diary of a PCO in the Republic of South Africa*

Trap catches were recorded throughout the year. The record demonstrates the effectiveness of the Exoroach in trapping nymphs as well as adults, and the effectiveness in preventing re-infestation when new sources of cockroaches are introduced to the facility. Source: Steiner Hygiene

Installation takes place in April and a first count is possible after 30 days. A total of 404 adult cockroaches were counted with substantial number of ootheca (egg cases). A great number of juvenile cockroaches were also found in the trap due to hatching of the ootheca. A sudden increase in June can be a result of various factors e.g. deep clean, pest control, use of insecticides or even re-infestation from deliveries. The count in August has come down dramatically and by October the low number reveals that the problem is well under control.

Case studies

2. Trial study by a PCO in India**

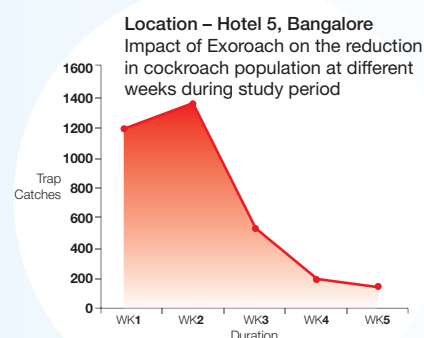
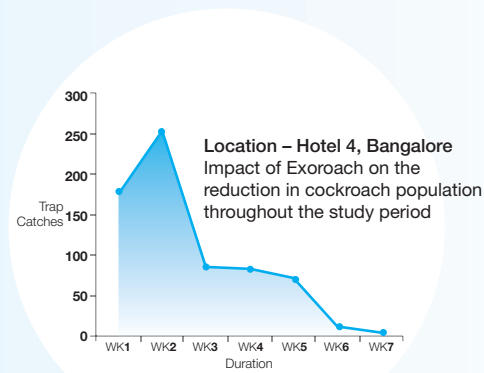
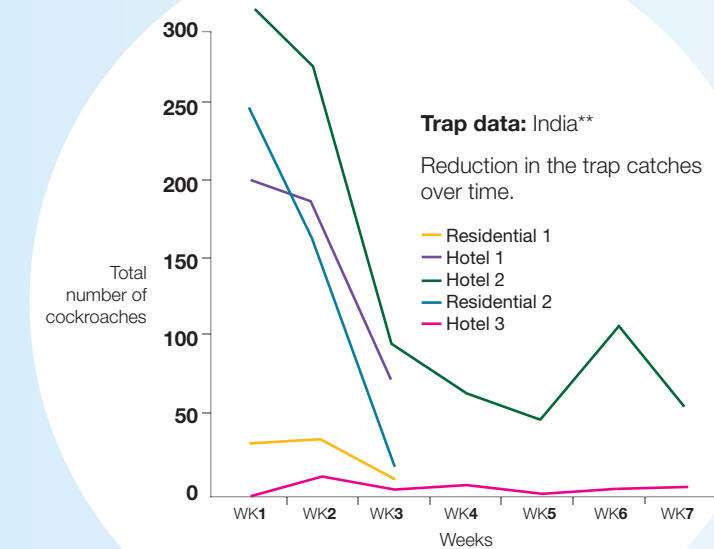
An assessment of the impact of Exoroach® on the reduction in the cockroach population at different locations in Bangalore and Chennai.**

Reduction in the cockroach population in the trial area was assessed in the following ways:

1. Reduction in the trap catches over the period
2. Pre and post trap installation counts

A significant reduction in the cockroach population in the order of 80-100% was recorded.

Source: PCI



*trials conducted in South Africa in 2004
**trials conducted in India in 2008

Effective

Exoroach effectively reduces and controls cockroach populations by means of a food grade lure Entostat™ Powder and a uniquely designed trap.

Enduring

Exoroach protects environments around the clock 24:7 from the risk of diseases caused by cockroach infestations.

Efficient

The net result of Exoroach is a significant measurable reduction in cockroach populations which once achieved can then be sustained through safe, continuous and cost effective treatment.



Questions & Answers

Q. What does Exoroach® catch?

A. Exoroach catches all major species of cockroach pests, including the German cockroach (*Blattella germanica*), the Oriental cockroach (*Blatta orientalis*), the American cockroach (*Periplaneta americana*), the Australian cockroach (*Periplaneta australasiae*) the Brownbanded cockroach (*Supella longipalpa*), and the Asian cockroach (*Blattella asahinai*).

that coat the sticky pads on their feet. These charged particles prevent the roaches from being able to grip and the insect falls onto a sticky glue base where they are retained.

Q. For how long does the Exoroach remain effective?

A. Exoroach is constructed from extremely durable materials that may be reused time and time again. The Entostat™ powder treatment on the bridge, the glue board and the lure have a life span of 3 months. Replacement would also be indicated by a full trap. Service kits containing the necessary replacement parts are available from your distributor.

Q. How many cockroaches can Exoroach catch?

A. This depends on the species of cockroach being caught given that they may vary in size. However, in trials carried out by the University of Southampton, UK, in an apartment in London, ca 5000 German cockroaches were retained in one single trap. It is anticipated that Exoroach should retain around 100 adult American cockroaches or similar sized roaches before needing to use a service kit.

Q. How much supervision does the trap require?

A. The trap will run unsupervised until full. We recommend checking the trap at least once per week until it can be established how serious the infestation is. If the initial placement of the trap is correct, the collection rate will initially be rapid followed by a tapering off. This may be followed by subsequent smaller peaks.

Q. Why do I need to control roaches?

A. It has been shown that cockroaches are capable of carrying diseases: these include 32 bacterial as well as 17 fungal related diseases, 3 protozoa related illnesses and 2 viruses. They can pass these diseases from one place to another e.g. if they come from the sewer and walk across a slice of bread, it's possible that the pathogen that is on the cockroach can be transferred to the bread and ultimately the person that eats it.

Q. Why is the Exoroach so effective for catching cockroaches?

A. Exoroach uses highly effective patented technology. It contains a lure that roaches find irresistible. Roaches are drawn towards the scent and, when inside the Exoroach, pick up electrostatically charged particles

