

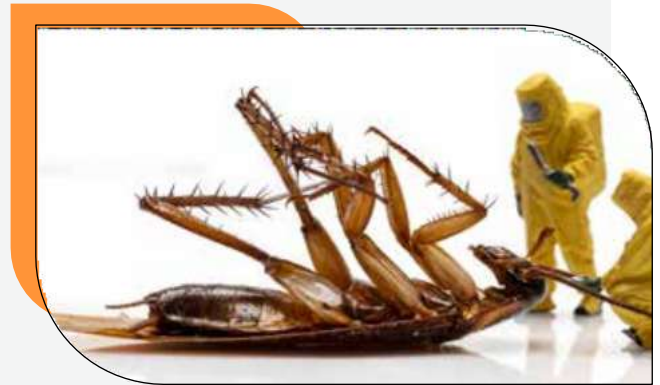
GENERAL PEST CONTROL

GPC1

Cockroach | Rodent | Flies | Mosquito

Cockroach

Cockroaches are the most important pest for any kitchen or pantry or food store area. They can only be kept under control by sustainable pest control methods including the odorless gel baiting, prophylactic spraying, sometimes flush out treatments. Ask us to send you complete details.



Mosquito

Mosquito management involves many complex unique steps which depend upon careful inspection of premises by technical expert. You can't use all possible steps everywhere or cherry-pick suiting your convenience. Don't hesitate to ask us to send experts and our integrated mosquito management strategy.

Houseflies

Presence of houseflies in any restaurant or home is a matter of shame and it severely damages a brand. Also they are one of the major carriers of diseases, and may harm you and your loved ones. It requires combination of strategies, pesticides and device better known as Integrated Fly Management.



Rodent

Rodents are destructive pests that can spread disease, contaminate food, and destroy property. Controlling rodents involves pre baiting, baiting, trapping, repelling them using bittering agent, rat cage, ultrasonic devices etc. It requires combination of strategies, pesticides and device better known as Integrated Rodent Management.

PESTICIDE ROTATION

GPC1



ROTATE PESTICIDES WITH DIFFERENT MODE OF ACTIONS

In spite of having so popular **ecosystem-based IPM strategies** which combines biological, chemical, physical and crop specific (cultural) management strategies and practices, yet **pesticides are essential part of any IPM program**.

Therefore, It is extremely important to consider this fact that heavy pesticide use in factories, complexes, homes causes increased selection pressure and thus has led to widespread development of pesticide resistance.

Therefore it is extremely important to rotate pesticides with different mode of actions.

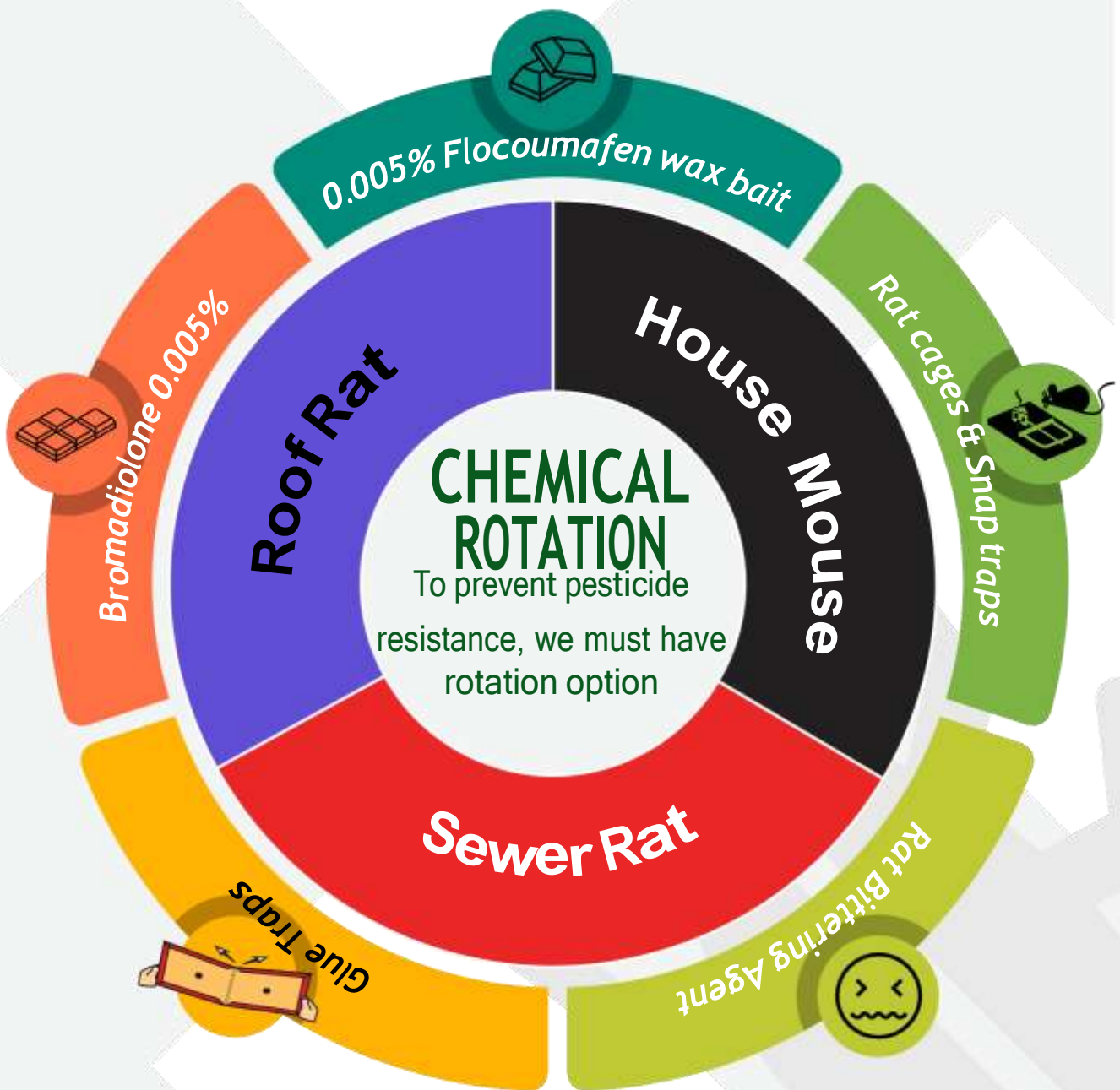
Hence, at PESTGOGO, we are extremely careful to ensure that the insect pests at our client premises do not develop the resistance. In subsequent pages you will get information about different pesticides with different mode of action are given.

Word of caution: These pesticide options are for rotation and not to be used simultaneously at the same time. Apart from our own technical managers and supervisors, no other non-qualified person should advise like using all at the same time, their own preferences etc.



RODENTICIDE ROTATION

GPC1



ROTATE PESTICIDES WITH DIFFERENT MODE OF ACTIONS

Same as follow the practice of pesticide rotation to avoid resistance, we rodents also we must rotate the rodenticides and other methods, especially now when we have option. Earlier, **Bromadiolone** was the only viable option as rodenticide. Now, we have **Flocoumafen** molecule as an alternative.

Also, we have **Rat Bittering Agent** called **Denatonium Benzoate** is rated as the world's most bitter substance. The brand is known as **bitterR**, a powerful rat repellent spray - Patented by UPL LTD. It is Eco friendly, Odourless, Non Toxic, Safe for Humans and Pets, Effective Rodent Repellent

Spray for Car, home and Office.

We also have to make good use of **Rodent Cages, Snap Traps, Glue Traps** while understanding the behaviour of different types of rodents. A simple glue trap will be found effective against House Mouse But may not be as good against Roof Rats or Sewer Rats.

Prophylactic Treatment

By Prophylactic pest control, we mean any course of action that prevents pests and diseases to spread one



What do we mean by Prophylactic Treatment?

Pest management decisions can be divided into prophylactic and responsive components. The first one - "Prophylactic Treatment" a preventive measure. The word "prophylactic" comes from the Greek for "an advance guard" an apt term for a measure taken to fend off any pest. A prophylactic treatment is a treatment designed and used to prevent a pest from getting inside a premises that is guarded.

It aims to eliminate/reduce the chances of reinfestation. The treatment is carried out by spraying insecticide in every crack and crevice of the premises to treat all the hidden parts to kill all the insects.

Prophylactic Treatment in Food Handling Establishments, warehouses:

Many species of pest are attracted to the food and shelter present in food production facilities and can enter the food supply and production facilities at many points, contaminating surfaces, materials, equipment and food products. Pest control is maintained by:

- Implementing IPM
- Inspection of incoming materials: raw materials, ingredients, packaging, containers and vehicles
- Preventing access to food and water
- Prevent pests gaining access through windows, drains, vents, screens, doors, piping, roofs, etc

Outside the premise in outdoors, we can carry out the selective pesticide treatment to prevent pests from gaining entry into the building. We have many pesticides approved for prophylactic treatments.

ROACH | FLIES | MOSQUITOES

GPC1



Cockroach

Ant



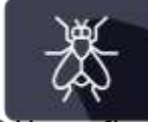
Rodent



Lizard



Mosquito



Pigeon



TERMITE

Snake

Molecule #1

*Sitational Rotation

Active Ingredient

Deltamethrin 2.5 % SC

Reputed Brands

Bayer, Arysta by UPL

Uses

Deltamethrin 2.5 % SC is used for effective control of cockroaches, house flies and mosquitoes as a residual spray.

Mode Of Action

It acts on insect by contact and ingestion. In both cases lipophilic nature promotes its action. In the insect body, it affects the nerve transmission by acting on axon. It has knockdown effect.

Features & Benefits

- Broad spectrum activity
- Odourless
- Effective at low dosages
- Non-greasy, non-staining
- Endorsed by HACCP for use in food and beverage facilities controlled by HACCP based Food Safety

Dosage & Anti Dote

- Dose: 10 ml per liter of water
- Antidote: Anti histamines, diazepam and other symptomatic treatment.



Molecule #2

*Sitational Rotation

Active Ingredient

Fipronil 0.03% RB Gel

Reputed Brands

Bayer

Uses

Fipronil 0.03% RB Gel is for the control of commonly found cockroaches like German cockroach, American cockroach in food handling areas of household and commercial premises

Mode of Action

The bait gel primarily acts as an ingestion toxicant with some complimentary contact action and acts by interfering in nerve impulse transmission.

Features & Benefits

- Baits attractive for cockroaches
- Highly effective at very low dosages
- Domino effect which spreads to many cockroaches
- Target specific to cockroaches

Dosage & Antidote

- German: 1 spot/ m2 when low & 2 spot/m2 when high density infestation
- American: 2 spot/ m2 when low & 3 spot/m2 when high density infestation
- Antidote: No specific antidote. Give symptomatically treatment





Cockroach

Ant



Lizard



Rodent



TERMITE



Mosquito



Housefly



Pigeon



Snake

Molecule #3

*Sitational Rotation

Active Ingredient

Imidacloprid 0.03%

Reputed Brands

Bayer

Uses

Maxforce Quantum is an easy to use and effective ant control product. The gel contains imidacloprid 0.03% in the form of syrupy liquid which is readily consumed by ant species that are most commonly found infesting buildings

Mode Of Action

The ant workers temporarily store the consumed ant gel and return to their nest (which consists of other members of their colony such as Queen, kings, soldiers and other workers). On returning home, these ants regurgitate the food and feed it to all the individuals. Thus Maxforce® Quantum effectively works by spreading into the entire ant colony.

Features & Benefits

- Excellent efficacy against multiple ant species
- Inconspicuous treatment, as the ant bait is transparent, viscous (syrup-like) liquid
- In contrast to conventional baits, Maxforce Quantum has a non-dry formula which resist evaporation Minimal time to apply and has long-lasting palatability to ants
- Fast elimination of ant infestation
- Thorough "colony elimination" with better control of workers, brood and queens than other ant baits Low dose and target specific
- Highly cost effective

Dosage & Antidote

- Dose: Ready to use gel, use as per infestation level in form of spots.
- Antidote: No specific antidote. Give symptomatically treatment



Molecule #4

*Sitational Rotation

Active Ingredient

Alphacypermethrin 10% SC

Reputed Brands

UPL

Uses

Alphacypermethrin 10% SC (brand name Alfatar 10% SC by UPL) is a high performing pyrethroid insecticide with rapid action against pests like houseflies, cockroaches and mosquitoes in indoor and outdoor situation.

Mode of Action

Alphacypermethrine 10% SC act as a contact poison. insects contact its active ingredient while crawling / moving on the sprayed surfaces ensuring fast and long lasting effect.

Features & Benefits

- Water solubility
- Purity
- Long shelf life
- High effectiveness

Dosage & Antidote

- Dose: Dilute 15 ml of alphacypermethrin in 1 f of water and spray the solution with minimal runoff on the treated surface.
- Antidote: No specific antidote. Give symptomatically treatment

ROACH | FLIES | MOSQUITOES

GPC1



Cockroach

Ant



Rodent



TERMITE

Mosquito



Housefly

Pigeon



Snake

Molecule #5

*Sitational Rotation

Active Ingredient

Propoxur 20 EC

Reputed Brands

UPL, FMC

Uses

Propoxur 20 EC is used against Flies, Cockroaches, Bedbug, Mosquitoes, Ants

Mode Of Action

Contact & ingestion poison having rapid knockdown effect

Features & Benefits

- Broad spectrum activity
- Long lasting residual effect
- Pure composition
- Highly effective
- Very strong flushing action
- Non-toxic
- Safe to human beings & non target animals

Dosage & Anti Dote

- Dose: 25 ml / 1 ltr. of water and sprayed at the rate of 50 ml solution per sq. mtr
- Antidote: Atropinize the patient immediately and maintain full atropinization by repeated dose of 2 to 4mg of atropine sulphate intravenously at 5 to 10 minutes interval. As much as 25 to 50 mg of atropine may be required in a day. The need for further atropine administration is guided by the continuance of symptoms. Extent of salivation is a useful criteria for dose adjustment.



RODENT CONTROL

GPC1



Cockroach

Ant



Lizard

Rodent



TERMITE



Mosquito



Pigeon

Housefly



Snake

Control Measures for Rodents

- 1. Baiting:** Bromadiolone is a potent anticoagulant rodenticide. Anticoagulants are defined as chronic (death occurs one to two weeks after ingestion of the lethal dose, rarely sooner), single-dose (second generation) or multiple-dose (first generation) rodenticides, acting by effective blocking of the vitamin K cycle, resulting in inability to produce essential blood-clotting factors — mainly coagulation factors. With Bromadiolone, the main benefit is that the time taken for the poison to induce death means that the rats do not associate the damage with their feeding habits.
- 2. Trapping:** Rats are trapped using snap traps or cages.
- 3. Catching with glue boards:** Glue boards are effective only against small size mice. These glue boards are not good enough for relatively heavier rats. Also, Animal Welfare Board of India (AWBI) under Environment Ministry has banned it. For more information, please visit the following site: <http://bwcindia.org/Web/Info&Action/Legislation/AWBI%20advisory%20re%20glue%20traps.pdf>

We also carry out pre-baiting to avoid Bait Shyness.

- **Pre-Baiting:** The only way to ensure an effective long-term eradication program is to first make your rats dependent on the same foods that you later plan to use to carry the poison to them.
- **Bait Shyness:** "An animal with bait shyness has learned to avoid foods that have caused discomfort in the past." A form of avoidance learning in which the animal quickly develops an aversion towards a novel food or bait. Attempts to eradicate local rat populations by using poison have had limited success, as a result of the rat's proverbial bait shyness. The only way to ensure an effective long-term eradication program is to first make your rats dependent on the same foods that you later plan to use to carry the poison to them.

Damages & Threats from Rodents

- They are destructive pests and serious safety hazards.
- They start fires by gnawing on electric cables. The next time you hear the phrase "fire of unknown origin," think about rats and mice.
- They eat large amounts of food, and they contaminate even more with their urine, faeces, and hair. At least 20 percent of the world's food is eaten or contaminated by rats and mice each year. Food spoilage is a big issue.
- They damage structures, books, furniture, even appliances, through gnawing and burrowing.
- Worse, they spread disease to humans and other animals through their bite, by transporting fleas, lice, mites and ticks, and by leaving their droppings in food and other materials that humans contact. Rodents are vectors for bubonic plague, rat bite fever, leptospirosis, Hantavirus, trichinosis, infectious jaundice, rat mite dermatitis, salmonellosis, pulmonary fever, and typhus. Mice have also been linked to asthma.
- As gnawing and burrowing animals, rodents inflict serious damage to our structures, equipment, furniture, utilities and transportation vehicles.



RODENT CONTROL



Cockroach

Ant



Lizard

RODENT



TERMITE



Mosquito



Housefly



Pigeon



Snake

Molecule #6

Active Ingredient

Bromadiolone 0.005%

Reputed Brands

Bayer, PCI

Uses

Bromadiolone 0.005% is used for the control of commensal rats around residential premises, poultry farms and in the fields.

Mode Of Action

It is a single dose anticoagulant rodenticide

Features & Benefits

- Ready to use wax blocks
- One feed is effective for the management of commensal rodents
- Single dose anti-coagulant
- No risk of secondary poisoning
- Very low proportion of active ingredient



Dosage & Anti Dote

- **Dose:** place 1 piece of cake per rat or mouse and 2 pieces of cake per Bandicoot
- **Antidote:** Vitamin K1 is an effective antidote to bromadiolone poisoning. After treatment with vitamin K1 and plasma transfusion to supply coagulation factors, the patient's PT, APTT and INR indexes presented good results..

Molecule #7

Active Ingredient

0.005% Flocoumafen wax block bait

Reputed Brands

UPL

Uses

Second generation chronic anticoagulant rodenticide with good palatability. It is a new rodenticide in the Indian market. Maximum Value, Least Cost Pulse Baiting.

Mode Of Action

Deltamethrin 1.25% ULV fog acts on the mosquitoes by contact action and has a knockdown effect. In the body, it affects the nerve transmission by acting on axon and the lipophilic nature promotes quick action.

Features & Benefits

- Single feed, Death from 3 days after eating a lethal amount of bait.
- Resistance breaker, effective against all target rodents, including those resistant to other anticoagulants such as bromadiolone.

Dosage & Antidote

- **Dose:** 1-2 pieces {20-40g} should be placed on each bait point.
- **Antidote:** Vitamin K1 is an effective antidote to bromadiolone poisoning. After treatment with vitamin K1 and plasma transfusion to supply coagulation factors, the patient's PT, APTT and INR indexes presented good results..

