

# RESIDENTIAL PEST MANAGEMENT

STRATEGY AND TREATMENT



The Chemical Company

**BASF Pest Control Solutions**

*The Evolution of Better Pest Control*

**5** COMPONENTS

*The Prescription Treatment® Pest Management System contains five key components that work together to ensure an effective and consistent professional pest management process. Together, they create the finished product offered to your customers.*



**WHY PRESCRIPTION TREATMENT PEST MANAGEMENT MAKES SENSE IN AND AROUND HOMES**

Customers want effective pest management and are also concerned with health and safety in and around their homes. Prescription Treatment (PT®) addresses each of these concerns. Prescription Treatment means responsible pest management. The PT process integrates all the necessary steps to control pests while being sensitive to these issues. This brochure discusses the strategies and tactics for delivering a great pest management program for homes.

**1. INSPECT**

**Information is the key to success.**

*Inspection is the cornerstone of Prescription Treatment. The reason is simple: when you have good information, you can make informed decisions. Every home is different. Construction type, pest pressures, family situations all contribute to the need of a situational analysis approach to managing pests so that responsible pest management can occur. Inspection may involve visual methods, monitoring via trapping or discussions with customers for fact finding leading to an overall awareness of the situation.*

**2. PRESCRIBE**

**Formulating a responsible plan.**

*Prescribing is choosing the right treatment based on the information gathered during the inspection. Understanding your objectives and knowing your product options and your treatment technique options is critical for success. Choosing the best options to fit the situation, based on the information gained during inspection, will deliver a plan that yields the results your customer wants.*

**3. TREAT**

**Start the cure.**

*Treatment techniques are the actions taken to solve pest problems. Training and knowledge are required to carry out the action plan properly. When done properly these actions are consistent with label directions, the proper safety precautions are taken, and the results are consistent with objectives in the account. Multiple action steps may be taken, integrating several approaches at once, all contributing to the overall objective. These action steps may include exclusion, physical repair, harborage reduction, sanitation and trapping methods as well as pesticide applications such as Crack & Crevice®, void, space, spot, directed contact and general perimeter treatments.*

**4. COMMUNICATE**

**Informed customers are happy customers.**

*Communication equals value. Many customers find it valuable to be brought into the process so that they can understand what is going on in their home and what to expect from the service you are providing, as well as what they can do to help in the process. They want to feel as though they are a special account being cared after by a technician who is concerned about them. It begins with the sales process and continues each time a technician visits whether it's the first visit or the 100th visit. Communication reinforces to the homeowner the value of having a professional servicing the home.*

**5. FOLLOW-UP**

**When a service ends, it's just beginning.**

*Pest management is always a process, not just a one time event. Following up after service with a phone call or inspection to be sure the customer's objective was reached is one of the best ways to ensure satisfaction. Many pest problems are the result of continuous pest pressures on the home that require on going service to keep the problems at bay. Anticipating future pest pressures and developing a responsible program for the on-going protection of your customers' homes is a very good idea. Each service should serve as a follow-up from the last and an early detection or prevention of new pest developments.*



## RESIDENTIAL TREATMENT STRATEGY

There's a lot riding on your treatment strategy: Even the finest homes can become infested with pests due to the complex nature of homes and the constant pest pressure surrounding them. To make things more challenging, people are often very concerned about unnecessary pesticide exposure, while having a very low tolerance for pests in their home. That's why the Prescription Treatment philosophy is built around inspection and targeted treatment. In the pages that follow, we will dissect the home into the major areas: Exterior Structure, Exterior Grounds, Unfinished Areas, Kitchen, Bath and Laundry, and Living Areas. We'll examine the "micro-habitats" in these areas to show how service technicians can effectively focus inspections and plan treatments.

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# EXTERIOR STRUCTURE: Inspection and Treatment

Managing pests on the exterior of the structure is critical as it represents many interception sites where pests may enter and harbor. Look for areas where pests can enter or where conditions exist which are favorable to pest populations.

## Decks

Dark, damp, protected areas beneath decks can provide perfect habitat for many common pests.

*Crickets, cockroaches, ants, spiders, wasps, mosquitoes*



## Exterior lighting

Often attracts night flying insects.

*Spiders, night flying moths, beetles*



## Foundations

Should be exposed and free of clutter for easy inspection. Check for cracks. Pay particular attention to joints where the foundation wall intersects soil/ mulch at bottom and siding at top.

*Ants, termites*



## Fireplace

Areas where brick meets wood or vinyl siding often results in gaps that allow moisture and/or pests to penetrate. Roof flashing often fails, creating a common moisture problem.

*Silverfish, ants, wasps, spiders*



## Hose Spigots

Dripping spigots provide the moisture necessary to sustain many common pests around the home. Check the foundation opening around the water pipe to ensure it is sealed properly.

*Ants, crickets, wasps, spiders, cockroaches, termites*



## Cy-Kick® CS

Controlled Release Cyfluthrin

- Great perimeter product choice
- Excellent residual on mulch, concrete and other tough residential surfaces
- SmartCap™ Technology protects and delivers cyfluthrin microcapsules for uncompromised control
- Versatile label to use indoors or outdoors
- 6% Cyfluthrin



## Termidor® SC

termiticide/insecticide

- Long residual, nonrepellent control enhanced with the Transfer Effect™
- Labeled for ants and a broad range of other frequently encountered general pests
- Controls pests in multiple ways for superior efficacy: direct ingestion, spray contact, and foraging and/or trailing over treated surfaces
- 9.1% Fipronil

Termidor is not labeled for termite use in New York State.



## Advance®

Granular Ant Baits

- Apply outdoors where ants are trailing, control the colony by baiting when you can't locate or access nest
- Advance Granular Carpenter Ant Bait for carpenter ants
- Advance 375A Select for Argentine, odorous house and other finicky ants
- Advance Granular Ant Bait for little black and other small ant species
- 0.011% Abamectin





## Inspection Tips:

**Interception sites**—Look at the structure in terms of where pests are most likely to enter such as vents, windows, doors, gaps around siding, roof and foundation.

**Harborage sites**—Protected areas on the structure provide pests with harborage. Check overhanging areas such as gutters, eaves, entries and shutters. Also look for openings which create access to voids on the structure.



### Roof

Check roof for signs of damage or moisture conditions. Symptoms include patched roof, cupping shingles, areas where roof sags, missing shingles, missing or damaged flashing around roof penetrations.

*Ants, termites*



### Gutters

May provide food/water resources to support pest infestations. If clogged or damaged, can lead to moisture damage to surrounding areas of structure.

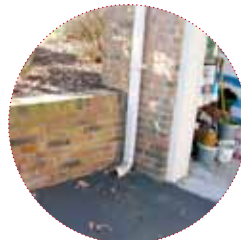
*Wasps, carpenter ants*



### Siding

Inspect siding for evidence of moisture retention such as buckling/ bulging, paint peeling/blistering, rotted boards, failed caulking, failed flashing. With brick veneer check weep holes for insect entry or harborage. Pay particular attention to where one type of siding intersects a different type of siding; these transitions are difficult to seal.

*Ants, wasps, termites*



### Downspouts

Check areas where downspouts deliver rain water. Water should drain away from the structure and not create pools of standing water.

*Mosquitoes, ants*



### Eaves & Entries

These protected areas often create the perfect harborage. Check under door mats, potted plants and decorative items.

*Spiders, wasps*

## Tri-Die®

### Silica & Pyrethrum Dust

- Use in exterior wall voids, such as weep holes to block pest access
- Very repellent, great for exclusion
- Electrostatically charged for even dispersion in voids
- Available in pressurized or bulk formulations



Tri-Die Silica & Pyrethrum Dust is not registered in PR. Restricted use in NY.

Tri-Die Pressurized Silica + Pyrethrin Dust has restricted use in CT and NY.

## MotherEarth® ProCitra-DL®

### Contact Insecticide

- Use to control crawling pests where no residual is required
- Excellent for use in sensitive accounts
- Pleasant and light citrus odor
- 10% d-Limonene, a botanical insecticide



## Wasp-Freeze®

### Wasp & Hornet Killer

- For situations around the home where instant knockdown of wasps and hornets is essential
- Jet spray kills from 15 ft. away
- High dielectric rating for safety
- 0.129% d-trans Allethrin, 0.12% d-Phenothrin



# EXTERIOR GROUNDS: Inspection and Treatment

The exterior grounds commonly consist of front, rear and side yards, each of which may contain a number of pest harborages or resource sites. Managing pests in these areas provides the first line of defense against pests before they enter the home.

## Sheds

Pests may live in, on or beneath sheds. Inspect the inside for any stored products that may serve as a food resource for insects.

*Spiders, wasps, rodents, ants*



## Garbage areas

Should be kept free of clutter and all containers should be tightly sealed and emptied on a regular basis.

*Flies, ants, rodents*



## Planting areas

Plantings should be maintained such that there is an 18" gap between plants and the structure. Mulch should not be more than 3 inches thick. Overgrown areas should be weeded and trimmed. Excessive mulch should be removed.

*Ants, ticks, spiders, crickets, cockroaches, termites*



## Trees

Should be inspected for damaged limbs or rotting trunks. Branches touching or overhanging the structure should be trimmed.

*Ants*



## Woodpiles

Should be stacked off the ground, and away from the structure.

*Ants, termites, wood boring beetles, spiders, scorpions, rodents*

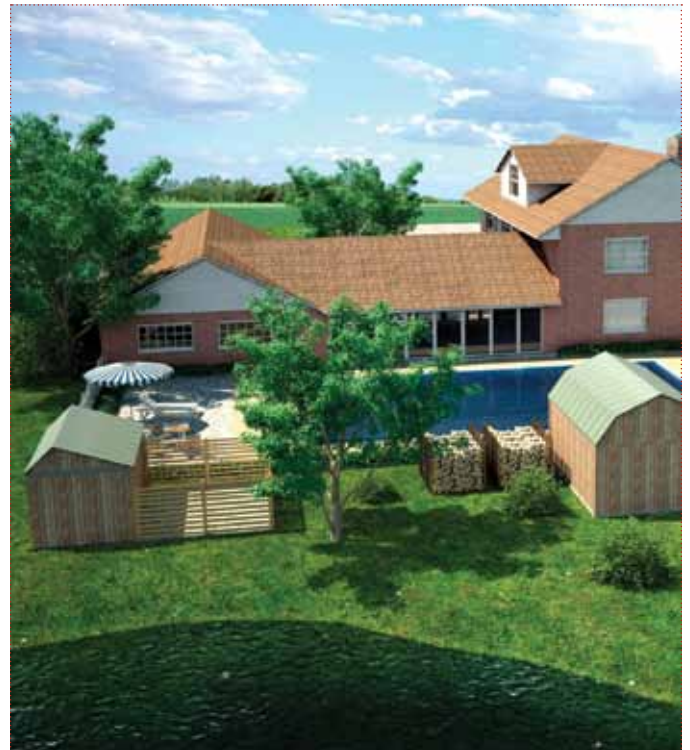


## Inspection Tips:

**Resource sites**—Carefully inspect areas on property that may provide the food and moisture necessary to support pest activity. Trash areas, bird feeders, stored items in sheds, trees and plantings.

**Harborage sites**—Pay particular attention to rotting landscape timbers, wood piles, cluttered areas, excessive mulch, overgrown plantings and beneath decks.

**Interception sites**—Trees and bushes touching or overhanging the structure should be inspected and trimmed back away from the home. Walkways, overhead utility lines, and landscape timbers also provide easy pathways to the structure for pests.



## MotherEarth® Granular Scatter Bait

- Apply broadcast treatment around perimeter for prevention of many household invaders
- Broadcast or targeted bait applications
- Long lasting and attractive bait matrix
- 5% Boric Acid



## Ascend® Fire Ant Bait

- Great for broadcast yard applications for fire ant prevention
- Apply mound treatments to control active nests
- Kills fire ants and halts viable egg production preventing the colony's growth
- 0.011% Abamectin



## 2% Propoxur Bait

- Great choice for dark/damp areas outdoors such as beneath decks, sheds and wood piles
- Indoors, damp secluded areas like crawlspaces and basements are excellent treatment sites.
- The power of Propoxur provides quick control of large roaches and crickets
- 2% Propoxur



Registration pending in CA, HI and IA as of 12/2009.



# UNFINISHED AREAS: Inspection and Treatment

Unfinished areas in the home generally are less disturbed and more cluttered than other areas. Stored products and other things present in these areas are attractive to insects either as food or harborage, potentially becoming the source of a pest problem in the living areas of the home. These areas need to be inspected carefully.



## Basement

French drains, sump pits and other slab penetrations provide moisture and access for pest entry. Inspect interior of foundation and slab floor for cracks. Inspect accessible plumbing for evidence leaks, inspect exposed framing at foundation for insects, damage or gaps to exterior that need to be sealed. Also inspect the top of foundation walls for ants and termites. *Crickets, cockroaches, ants, silverfish, spiders, rodents*



## Garage

Check storage for items such as food or seed that may attract pests. Crawling pests generally enter through gaps beneath garage doors, so checking the weather stripping is important. *Spiders, ants, crickets, cockroaches, scorpions*



## Attic Storage

Check roof sheathing for evidence of moisture conditions. Stored items, including clothing, paper products, and dried nut/food products in decorations often support pest problems if not stored in properly sealed containers. Attics also harbor over-wintering pests. *Silverfish, stored product moths, stored product beetles, rodents, ants, cluster flies, Asian lady beetles, wasps, drywood termites*



## Crawl Space

Check for moisture retention and appropriate ventilation. Improperly installed insulation, vapor barriers and vents often lead to moisture problems resulting in conditions conducive to pests. *Termites, ants, spiders, silverfish, crickets, cockroaches, rodents, powder post beetles*

## Phantom<sup>®</sup> termiticide-insecticide

- Highly effective, long-residual nonrepellent control
- Broad spectrum control of: ants, roaches, bed bugs, beetles, centipedes, flies, scorpions, wasps, and more
- Labeled for spot and Crack & Crevice<sup>®</sup> applications inside and on outside entry points (doors, windows, eaves, etc.)
- 21.45% Chlorfenapyr



## Advance<sup>®</sup> 360A Dual Choice<sup>®</sup> Ant Bait Stations

- Bait ants indoors where ant trails are observed - sill plates along foundation is often a great location to bait ants
- Best choice for pharaoh ants, but also effective on many others.
- Two attractive food matrices in one station
- 0.011% Abamectin



## Phantom<sup>®</sup> pressurized insecticide

- Nonrepellent aerosol with broad spectrum control including bed bugs, ants and cockroaches
- New formulation dries in "crystals" for enhanced bioavailability and faster performance on numerous substrates (porous, non-porous and high organic matter)
- System III<sup>®</sup> compatible
- 0.5% Chlorfenapyr



Registration pending in CA and DC as of 12/2009.

# KITCHEN, BATH, LAUNDRY: Inspection and Treatment

Kitchen, bath and laundry areas contain all the necessary conditions for pests to thrive within the home. They are also considered to be very pest sensitive areas of the home. This makes pest management in these areas critical to the success of any residential pest management program.

## Pantry

Check for improperly stored food, spillage and evidence of stored product pests. Pay particular attention to dried pet food, old grain, meal, nut products and spices.

*Stored product moths, stored product beetles, cockroaches, ants*



## Exposed Food

Fruit bowls, pet feeding dishes, cookie jars, decorative spice arrangements and any other items on counters or floors should be inspected. Ants and some stored product pests may go undetected by the homeowner due to their small size.

*Ants, stored product pests, small fruit flies*



## Sink Cabinets

Check for evidence of moisture problems around or beneath the sink, garbage disposal and dishwasher.

*Silverfish, ants, cockroaches*



## Trash

Check areas surrounding the trash can. Often the trash can is hidden away where pests can take advantage of the resources found within.

*Cockroaches, ants*



## Tub/Shower

Check for evidence of moisture problems in tub/shower enclosures, behind tiles or around sinks and toilets. Windows inside shower areas commonly leak water into surrounding voids. Tubs on slab level often have open bath traps concealed beneath them which may provide access to pests from the soil below the slab.

*Termites, ants, cockroaches*



## Laundry

Washing machines should be inspected for evidence of leaks. Dryers sometimes improperly vent into crawl spaces or other closed areas creating a moisture condition.

*Crickets, cockroaches, ants, silverfish*



## 565 Plus XLO<sup>®</sup> Formula 2 Contact Insecticide

- Fast flush of crawling pests, fast knockdown of flying pests
- Enhance inspections to find hidden pests in cracks, crevices and voids
- Extra low odor formulation
- 0.5% Natural Pyrethrins, 1% PBO, 1% MGK-264



## Advance<sup>™</sup> Cockroach Gel Bait

- Bait cracks and crevices suspected of harboring cockroaches
- Controls gel-averse and non-gel-averse strains of German cockroaches
- 0.5% Dinotefuran for fast results



## Cy-Kick<sup>®</sup> Crack & Crevice<sup>®</sup> Pressurized Residual

- Apply to cracks and crevices where pests are likely to harbor or pass through
- Great for crack & crevice in kitchens and bathrooms
- Low odor, long lasting residual formulation
- 0.1% Cyfluthrin

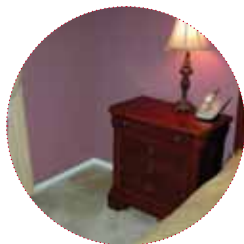
Restricted use in CT and NY.





# LIVING AREAS: Inspection and Treatment

Living areas, although usually not closely associated with food or moisture conditions, do sometimes experience the symptoms of pest problems. These are sensitive areas in the home that many homeowners insist on being pest free. Usually these areas require nothing more than inspection, but on occasion can harbor a pest problem.



## Bedroom

Check corners, and wall/ floor junctions and closets for evidence of pest presence.

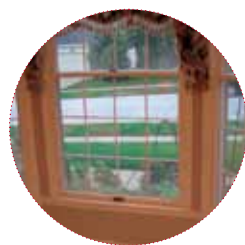
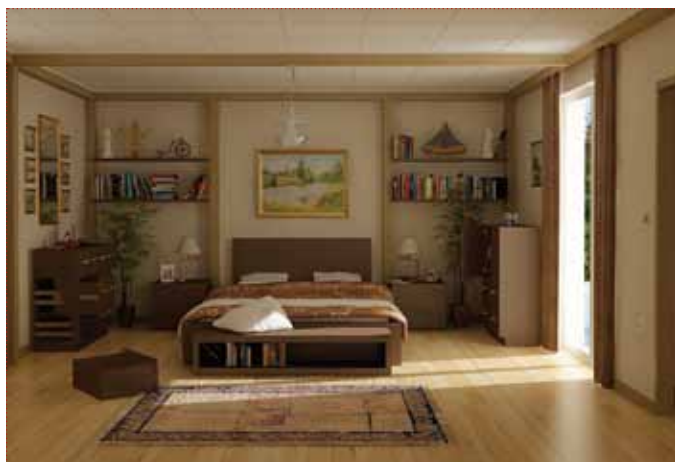
*Silverfish, ants, bed bugs, spiders, carpet beetles, clothes moths*



## Hearth

Inspect the hearth area for evidence of moisture leaks in adjacent wall or ceiling areas. Also inspect firewood for evidence of insects transported inside.

*Ants, beetles, spiders, scorpions*



## Windows

Inspect the windows throughout the home. Check to see that they are sealed, free of moisture issues, and have screens in good repair.

*Spiders, ants, flying insects*



## Pet Bedding

Inspect the bedding and adjacent areas that ticks may use for harborages.

*Fleas, ticks*



**Potted Plants**—Check potted plants for evidence of pests which may have been brought in from the outside.

*Ants, spiders, fungus gnats*

## Ultracide®

### Pressurized Flea IGR & Adulticide

- Great for treatment of carpet, pet bedding and furniture
- Prevents re-infestation of fleas for seven months
- Now also labeled for ticks
- 0.1% Pyriproxyfen, 0.05% Pyrethrins, 0.4% MGK-264, 0.4% Permethrin, 0.35% related compounds



## Alpine®

### pressurized insecticide

- Reduced Risk\* nonrepellent aerosol
- Broad use label for residential and non-food handling areas
- System III® compatible
- 0.5% Dinotefuran

Registration pending in ID, MD, WV and WY as of 12/2009.

\* Dinotefuran, the nonrepellent active ingredient in Alpine insecticides, has been granted Reduced Risk status for public health use by the EPA.



## Alpine®

### dust insecticide

- Reduced Risk\* nonrepellent dust for ants, bed bugs and stinging insects
- Broad use label for inside and outside non-food handling areas
- Doesn't excite stinging insects
- Controls pyrethroid-resistant bed bugs
- 0.25% Dinotefuran

Registration pending in WV and WY as of 12/2009.

\* Dinotefuran, the nonrepellent active ingredient in Alpine insecticides, has been granted Reduced Risk status for public health use by the EPA.



## 9

TREATMENT  
TECHNIQUES

Putting it all together in a successful treatment plan.

Treatment techniques are the actions taken to solve pest problems. They are options that focus on how the prescriptions will be implemented.

## 1.) CRACK &amp; CREVICE® TREATMENT



**Definition:** The application of small amounts of insecticide into cracks and crevices in which insects hide or through which they may enter a building.

**Concept:** Deliver the insecticide to a specific location where it is likely to impact the pest with little or no impact on the area surrounding the treatment site. It is often used in sensitive areas where pesticide exposure is an important consideration.

- Flush insects as part of inspection
- Kill insects living in or travelling through cracks

**Common pests:** Bed bugs, cockroaches, silverfish, spiders

**Product formulations commonly used:** Residual insecticide, contact insecticide, bait

## 2.) VOID TREATMENT



**Definition:** Application to enclosed spaces where insects may live, hide or travel.

**Concept:** Make the void uninhabitable or impassible (exclusion); or kill insects present within the void space.

- Flush insects from their harborage for inspection; identify infested sites
- Repel insects from living in or travelling through void spaces

**Common pests:** Wasp/bees, ants, silverfish, bed bugs, boxelder bugs, Asian lady beetles, clusterflies

**Product formulations commonly used:** Residual dust, contact insecticide

## 3.) SPOT TREATMENT



**Definition:** Surface application to limited areas where insects are likely to be present not exceeding two square feet in area.

**Concept:** Expose insects to insecticide as they come in contact with, congregate on or crawl across treated surfaces.

- Prevent pest entry from outdoors
- Make individual spot applications or a series of closely spaced spot treatments
- Use for general maintenance of crawling insects in insect prone areas

**Common pests:** Most crawling insects

**Product formulations commonly used:** Residual insecticide, especially microencapsulated

## 4.) ULV SPACE TREATMENT



**Definition:** Treatment to a volume of space with relatively small amounts of non-residual insecticide with droplets having a mass median diameter of 20 microns or less to control the exposed stages of flying and crawling insects.

**Concept:** Kill or control flying insects or crawling insects by exposing them to small droplets of insecticide delivered and dispersed into the air. The insecticide contacts the insect as the small droplets travel through the air or fall from suspension in the air.

- Control flying insects and exposed crawling insects in complex environments
- A good option in areas to which access is limited

**Common pests:** Flies, mosquitoes, stored product moths, spiders

**Product formulations commonly used:** Contact insecticide



## 5.) DIRECTED CONTACT TREATMENT



**Definition:** Application of a non-residual wet spray to exposed insects within a localized area for immediate kill.

**Concept:** Quickly kill exposed insects to prevent stings, bites or prevent insect movement to other areas.

- Active bee/wasp/hornet nest
- Quick relief from fleas
- Control insects found in complex environments that limit the usefulness of other techniques
- Quickly kill exposed insects within a localized area and prevent insects from scattering to other areas

**Common pests:** Fleas, spiders, stinging insects, heavy infestation of crickets, cockroaches

**Product formulations commonly used:** Contact, pressurized, fast acting contact products

## 6.) PERIMETER TREATMENT



**Definition:** Broadcast application to exterior areas of structures.

**Concept:** Reduce pest pressures by impacting reservoir sites and interception zones around the home.

- Reservoir sites which provide resources that allow pest populations to build near the structure. (mulch beds, plantings, garbage areas, etc.)
- Interception zones are harborages or access points for pests on the structure (foundations, soffits, vents, entries, penetrations in siding, etc.)

**Common pests:** Most common crawling and flying insects

**Product formulations commonly used:** Microencapsulated insecticide, granular insecticide, granular bait

## 7.) EXCLUSION



**Definition:** Protecting an area against pest access either by mechanical alteration or by rendering access points and harborage impassable via chemical repellency.

**Concept:** Alter the environment so pests cannot pass through.

- Chemical exclusion repels pests from the area and prevents pests from entering or harboring
- Physical exclusion seals off access to cracks/voids

**Common pests:** Ants, cockroaches, spiders

**Product formulations commonly used:** Repellent dust, repellent residual spray, caulk, screening or other sealing material

## 8.) BAITING



**Definition:** The use of an attractive food matrix combined with an effective toxicant designed to kill the target pest.

**Concept:** Place bait in locations where targeted pests will feed. As the bait is consumed, the toxicant kills the pest. Choose best bait formulation based on target insect and treatment site.

- Placed in cracks and crevices for cockroaches
- Applied along foraging trails for ants
- Scattered in resource/harborage areas for crickets
- Installed in specially designed stations for termites

**Common pests:** Ants, termites, cockroaches, crickets

**Product formulations commonly used:** All bait formulations

## 9.) MONITORING/TRAPPING



**Definition:** Technique of capturing pests as a means to identify, quantify or control adult stages of an infestation.

**Concept:** A variety of traps are used to aid the inspection process and symptom suppression.

- Identify insects present
- Measure populations of insects
- Use as a control mechanism

**Common pests:** May include almost every pest, especially termites, ants, spiders, crickets, cockroaches, silverfish, stored product moths, stored product beetles, flies, and rodents

**Product formulations commonly used:** Pheromone trap, insect light trap, termite monitor, crawling insect monitor, glueboard, mechanical rodent trap

# PRODUCT FORMULATION OPTIONS

## CONTACT INSECTICIDES

Contact insecticides are short-lived products designed to work quickly on the exposed stages of insects either to flush or kill. Contact insecticide products are usually delivered via pressurized cans or ULV (Ultra Low Volume) generating equipment.



## RESIDUAL INSECTICIDES

Residual insecticides provide long-lasting pesticide activity. Usually, the insect will make contact with the pesticide as it crawls through or rests on a treated site. Both the pest and the surface being treated need to be considered when selecting a residual product. There are many formulations and active ingredients available for residual treatments.



## INSECTICIDE BAITS

Baits combine an attractive food matrix with an insecticide. They rely on attraction acceptance and consumption for effectiveness. Baits are available in many formulations including liquids, gels, dry-flowable powders, and granules. The food matrix, active ingredient and concentration of active ingredients are important considerations when selecting the appropriate bait for controlling a targeted insect population.



## TRAPS/MONITORS

Traps are devices that physically restrain pests. They usually involve an attractant as a lure into the trap. Attractants may be pest specific, as in the case of pheromones or food attractants, or may be more general, like insect light traps for flying insects, or traps that provide harborage or stimulate curiosity such as crawling insect sticky traps or mechanical rodent traps.





## THE SYSTEM III®: How does the System III make Prescription Treatment Pest Management better?

System III application equipment is designed to help make pest management professionals even better at what they do. It delivers precision applications of pest management products right where they're needed. And with the belt mounted system, arming yourself with all the best tools is simple, lightweight and manageable.

The System III enhances your professional image, and makes pest management more profitable by reducing product usage with precise controllable applications. Together, the System III and PT pressurized products give you the tools you need to provide your customers with the service they deserve.



### *Treatment Tip:*

*Arming yourself with dual System IIIs will help provide for increased efficiency in your treatment schedule. Quick flushing during inspections with 565 Plus XLO along with the residual power of Cy-Kick are an incredible one-two punch.*











Always read and follow label directions.  
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