



CARPENTER ANT PROTOCOL



NISUS[®]

Better science for a better world.

CARPENTER ANT SERVICE PEST MANAGEMENT MODEL SERVICE PROTOCOL

(ALWAYS READ, UNDERSTAND AND FOLLOW LABEL COMPLETELY
BEFORE ANY APPLICATIONS.)

TOOLS

Adequate supply of preferred product(s):



Niban®



Niban-FG®



Bora-Care®



Jecta®



Fireback®

INSPECTION TOOLS AS NEEDED

Professional flashlight

Inspection mirror

Notebook or electronic tablet for notes and service record documentation

Probing tool

Hand lens

NPMA Field Guide app or other source for proper identification

APPLICATION EQUIPMENT AS APPROPRIATE FOR JOB

Hand pump sprayer or rig tank

Caulking gun for Jecta

Hand granule spreader

Hand dust bulb with tip removed or modified to allow for Niban or Niban-FG to pass

Small plastic trays if placing bait in areas inaccessible to children and/or pets

OTHER

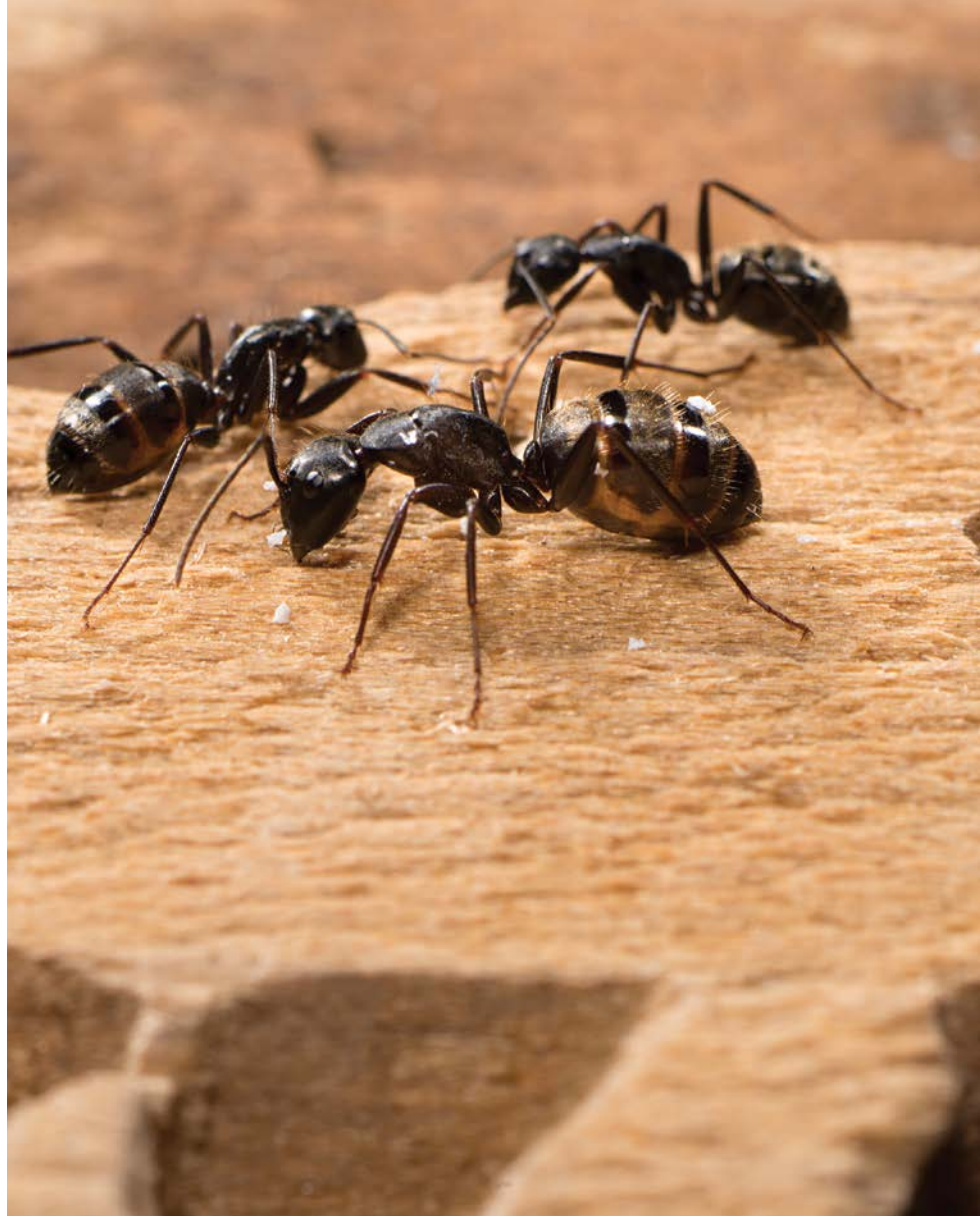
Possess proper state credentials to perform work

PPE as required by label for work being done

CARPENTER ANT BACKGROUND

Introduction: Carpenter ants (*Camponotus* spp.) extend in the U.S. from southern Florida to the Pacific Northwest. The most common is the black carpenter ant (*Camponotus pennsylvanicus*), with a range covering the eastern half of the U.S. Carpenter ants nest in and around logs, stumps, trees, leaf litter and in any other natural wooded habitat. Carpenter ants are predators that feed on a large swath food sources. In the initiation of a new colony, the winged reproductives emerge from the nest for their mating flights during the first warm days of spring (i.e., January-June, depending upon latitude and elevation). Winged reproductives are produced in colonies 6-10 years old when the colony population numbers over 2,000 workers. These mature (parent) colonies will establish satellite colonies whenever the ants require a drier or warmer environment for their larvae and pupae.

Pest Status: Several species invade dwellings, establishing satellite nests to temporary house brood and reproductives. Carpenter ants do not eat wood, but excavate galleries within wood to use as nesting sites when forming satellite colonies. They will also use voids in walls, soffits and other spaces conducive for satellite nest formation. Carpenter ants often enter homes through openings such as attic vents. Foraging activity usually occurs during nighttime. When foraging inside dwellings, carpenter ants are attracted to many carbohydrates, proteins and fats.





Camponotus Pennsylvanicus

Common Pest Species:

1. Florida: *Camponotus floridanus*
2. Eastern U.S. and parts of Canada: *Camponotus pennsylvanicus*
3. Southwest/Plains: *Camponotus sayi*
4. West: *Camponotus modoc*

INSPECTION

If the purpose of the visit is to perform a wood destroying insect inspection, any carpenter ants in, on or under the structure should be reported. The first sign of a carpenter ant infestation is usually the sighting of live ants in or near the structure. If the ant is winged, know the difference between a carpenter ant winged reproductive and a termite winged reproductive. Also, look at any stacked

firewood which is a common source of carpenter ants. In winter, a customer might observe carpenter ants emerging from firewood brought into the structure. Carpenter ants can survive lower temperatures and will become active when the infested logs warm inside.

Carpenter ants can be found near hardwood trees or the structure, and the customer might observe ants on decks, siding or even inside the structure. Frequently the customer has tried to eliminate the ants by broadcast spraying

of the surfaces where ants are seen.

Unfortunately, these sites are not where the ants are most concerning, and eliminating the ants on surfaces only makes the professional job harder as moving ants can be observed to discover the source. As with any pest management, the inspection phase is the cornerstone of integrated pest management. Presence of workers is usually a positive indication that an active, mature infestation is either in or near the structure or nearby. When inspecting, look for tree branches that may be just above or in contact with the roof.

*Camponotus Sayi**



Workers usually are active in the evening and into the night, resulting in heightened activity and even the presence of dead workers. Physical signs of intrusion can be absent, but presence of wood sawdust beneath slit-like openings in wood members is a good indication that a sub-colony has been established. When viewed under a hand lens, note that the frass or sawdust shows that it was excavated from the wood; carpentry sawdust from a saw has a distinctive different appearance and is more regular in size. The professional must be able to distinguish carpenter ant frass from sawdust.

GALLERIES

When tracing to a source, note that carpenter ant galleries in wood have smooth surfaces as compared to termite galleries, which are coarse and often contain remnants of dirt. Carpenter ants usually excavate wood that is continually moist and has been softened by decay. Carpenter ant galleries will normally be clean and smooth, and excavated frass will be discarded via “kick out holes”, frequently leaving scattered frass visible. Always ask the customer if they have observed sawdust that they removed. This could point to the source of infestation.

CONTROL

There are several control methods that should be used concurrently. Ultimately, focus on developing a full Integrated Pest Management (IPM) system; however, the most expedient method of control is by directly treating the main colony if possible. Track foraging workers to the central nest. One can follow workers by placing



Camponotus Floridanus



Carpenter Ant Gallery

Camponotus Modoc



Niban or cookie crumbs where workers are foraging. Foragers will take the crumbs to the main colony nest. Once it is located, you can treat the main colony directly.

Mechanical Modifications:

In partnership with the technician work ask the customer to:

1. Remove wood piles from foundation walls
2. Cut tree limbs back
3. Seal cracks along foundations, siding, windows, and doors with caulk
4. Install fine mesh screens over crawl space and attic vents
5. Clean gutters
6. Eliminate over-abundant water sources



Insecticide Method(s): Overall, there are five common methods of pesticide application used to control carpenter ant infestations, including exterior perimeter treatments, interior void treatments, treating infested wood, preventative wood treatments and baiting.



1. Exterior Perimeter: Perimeter treatments will not prevent ant access from roof lines and other high access points. Treat access points on exterior with Bora-Care and/or Jecta. Fireback can be used to knock down workers. Bait for carpenter ants on the exterior near the foundation using Niban and Niban-FG granular baits using a hand spreader. Niban and Niban-FG are university-proven to be effective against carpenter ants. If it's found, treat the main colony directly using a duster. Also, apply bait around the base of all trees, stumps, firewood piles and other locations where carpenter ant

workers are seen foraging. Do not use a bait on the same surface as Bora-Care, Jecta, or Fireback, as the effectiveness of the bait may be reduced.



2. Interior Insecticide Void Treatments: Interior treatments should work in conjunction with exterior treatments. Treat with Bora-Care, Jecta and/or Fireback liberally into voids to guarantee ant contact. Treat plumbing lines as well as in other cracks and crevices. For interior applications of Niban and Niban-FG, use small bait containers and place in specific locations and/or place in cracks and crevices.

3. Spot Treatments of Infested Wood and Foam Panels: Sometimes just a small spot treatment is needed. Inject Bora-Care, Jecta and/or Fireback directly into the carpenter ant galleries. Bora-Care liquid and foam solutions may both be used. Bora-Care and Jecta will give long-term control, and Fireback will deliver a quick knockdown. Spray surface of wood in infested areas using Bora-Care at a 1/1 dilution ratio per label. Treat all sides. Use two applications if only two sides are accessible. Foam Bora-Care in voids behind panels and inject foam at the interface of the foam panel and sheathing or backing material. If necessary, drill holes on a grid pattern to insure adequate coverage of infested area. This is further explained on the Bora-Care and Jecta labels.

4. Preventative Wood Treatments: Using a wood preservative such as Bora-Care will prevent carpenter ants from excavating the wood. Bora-Care penetrates the wood member deeply, and when mixed at a same volume ratio with water, a higher loading level of the active ingredient is penetrated into the wood member.

5. Baiting: Preferably use a particle bait with multiple size particles. Niban granular bait is an excellent choice. Treat the main colony directly if found. Broadcast around periphery of the structure, whereby both the main colony and sub-colonies have access and can forage for the bait. Also, apply around the base of all trees, stumps, firewood piles and other locations where carpenter ant workers are seen foraging. For interior applications, use small bait containers and place in specific locations and/or place in cracks and crevices.

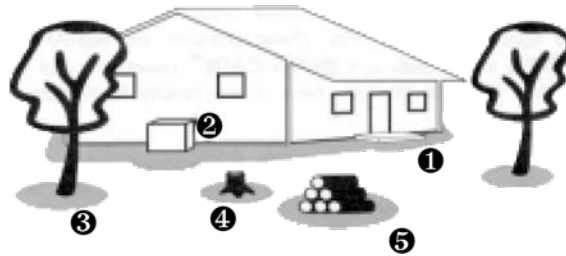


CONCLUSION

Using this integrated pest management approach and selecting these very effective products will show the customer the value of the professional and will result in great control.

Shaded areas represent key locations to treat with a two- to four-foot band of Niban.

- ❶ Perimeter of structure
- ❷ Exterior air conditioning units
- ❸ Trees close to home
- ❹ Tree stumps
- ❺ Firewood piles



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