The odorous house ant (OHA), Tapinoma sessile, is a significant ant pest throughout the United States. Infestation is severe east of the Mississippi River and in the upper Midwest and is heaviest in the Mid-South through the east of Texas. The OHA is occasionally on the West Coast, and in Florida, is not reported frequently enough to be a major problem.

The OHA can spell trouble for unsuspecting PMPs and homeowners who try to control this species with "general pest applications and prayers." Following are a few reasons why:

- **Large Colonies** - OHA colonies are often made up of numerous interconnected satellite nests, referred to as "super colonies." A single mature colony can contain more than a hundred thousand individuals and hundreds of egg-laying queens scattered throughout the satellite nesting sites.

- **Budding** - New colonies or satellites are formed primarily through budding which occurs when a mated queen leaves the nest with workers to establish a new nesting site. Budding occurs often and sometimes is a response to adverse environmental conditions as a colony defense mechanism.

- **A "Tramp Ant" Species** - OHAs have an adaptable nesting behavior and can nest almost anywhere. This ant nests outdoors above ground in trees and on roofs; in soil, nests are typically shallow, located under objects and are not permanent; and indoors it nests in almost any secluded spot including wall voids, behind paneling and under floors. OHAs relocate frequently taking advantage of new nesting opportunities.

**Odorous House Ant Case Study**

Using the Prescription Treatment Pest Management approach, the PMP will first inspect the facility and then prescribe the appropriate action plan. The PMP will treat the problem according to the prescription and communicate with the customer about the treatment and recommendations for remediation of sanitary and maintenance problems. Finally, the PMP will follow-up with an inspection a week later to determine the effectiveness of the original treatment and the status of the customer’s responsibilities in the pest management program.

In this case study, the homeowner has an OHA problem he tried to resolve with over-the-counter bait stations without success. He has been battling this problem for several months and finally admitted defeat. This is a great opportunity for the PMP to show this client the value of professional pest management and possibly gain a long-term customer using the Prescription Treatment® pest management approach.

**INSPECT**

It all starts with understanding the situation

The first step in any Prescription Treatment pest management situation is to properly identify the pest and assess the situation. With a hand lens, the PMP viewed a sample specimen for proper identification - the
OHA, which is monomorphic, approximately 1/6 to 1/8 inch in length and has a pedicel which is segmented with a single, flat node concealed by the base of the abdomen (gaster). There is a slit-like anal opening at the tip of the abdomen with no stinger. The body color of the OHA ranges from brown to black and has no club on the 12-segmented antennae. The OHA is often mistaken for the Argentine ant, but the Argentine is easily distinguished from the OHA by a single prominent, pointed node on its pedicel. The OHA’s node is flat and concealed under the gaster. Also, when crushed, the OHA emits a rotten coconut odor.

PT Quick Tip: Often confused for Argentine ants, OHAs can easily be distinguished by examining the node on the pedicel.

Once the PMP targeted OHAs as the pest, he needed to identify present activity sources. The client helped point out obvious indoor activity sites in the kitchen and bathroom, but thorough inspection is critical to success. So, he conducted an extensive indoor and outdoor inspection. During inspection, the PMP kept in mind that OHAs are fond of honeydew, so he began with the flowerbeds around the home looking for feeding ants. Next, he examined the perimeter of the structure and other areas around the yard containing suitable nesting sites, such as firewood and leaf piles, rocks, landscape timbers, garbage cans, bird baths, splash blocks, etc. While examining these areas, he checked structural guidelines commonly used for easy ant trailing. Expansion joints in concrete walkways, edges along foundations, decks and driveways, tree trunks and limbs, garden hoses and borders, are often easy places to notice ant activity and to follow ants as they return to their nests.

Next, the PMP went inside. He paid particular attention to areas adjacent to exterior activity spots. Beginning in the basement, he examined the exposed foundation and sill plates, as well as pipes leading to the kitchen and bathrooms. He checked the living areas, closely examining baseboards and carpet edges especially around the fireplace, doors and windows. The attic was not accessible, but is normally worth inspecting particularly if there is a history of moisture conditions, clogged gutters or overhanging/touching tree limbs.

PT Quick Tip: Nesting sites can be inside, outside or both. When outside, look for trailing ants and follow them to their nests and don’t limit your focus to areas next to the house. In many cases, ants nest in landscaping or under items away from the house.

Findings
The PMP found several nests throughout the yard in trees, an old woodpile, a pile of rocks, as well as trails entering the home through weep holes in the brick veneer near the kitchen. Upon closer inspection, he realized the ants were carrying food away from the house when exiting the brick veneer. He also observed active trails on the basement’s foundation ledge beneath the kitchen, along the same brick veneer wall.

PT Quick Tip: Once an ant trail is found, it’s important to determine the nest’s location. To track ants back to a nest, apply a small amount of Prescription Treatment brand Advance® 375A Select granular ant bait along the active trail and watch them carry it off in the direction of the nest.

PRESCRIBE
Determine your strategy and select treatments.

After completing the inspection, the PMP prescribed a plan to manage the infestation. He chose a multi-pronged approach involving actions and products that address the symptoms, control the source and maintain control at this account.

Address the symptoms
For the ants in the kitchen and bathroom, the PMP had some options. Based on his
observation, the ants appeared to be coming inside for food or moisture. He could try to repel the ants from these areas and/or divert the feeding to less sensitive areas while the baits work on the colony. Since he couldn’t rule out the possibility that an indoor nest existed, he chose a combination approach inside.

He decided to create a repellent barrier around the kitchen and bathrooms using Prescription Treatment Tri-Die® pressurized and Prescription Treatment Cy-Kick® CS pressurized while baiting in the basement to knock out any nests inside. He prescribed the use of Prescription Treatment Advance 388B on exposed basement ledges and PT Advance 375A Select in voids and cracks and crevices near the trailing ants in the same area. Outside he injected PT Tri-Die in weep holes of the brick veneer creating a repellent barrier to keep ants out. (Another good option is to apply PT 375A Select directly into the weep hole if you suspect ants are nesting somewhere inside the brick veneer void.)

Control the source(s)
The PMP distinguished two main sources contributing to the OHA pest problem:

1) Accessible Nests - The PMP needed to aggressively attack the source of the problem wherever possible. For visible and accessible nests outside, he chose PT Cy-Kick CS with a direct nest treatment for fast elimination.

2) Visible Trails/Non-Accessible Nests - Active trails were running up a tree trunk and because of the tree height and non-direct nest access, he decided to bait this location. Protein is required for larval growth in a colony, so PT Advance 375A Select is perfect for the OHA. The OHA is finicky about feeding on bait granules that are too large or too small for its mouth. The grit size and attractive matrix in PT Advance 375A Select is ideal for them.

Maintain long-term control
To maintain long-term control, the PMP had a two-fold solution. In addition to a thorough exterior perimeter treatment using PT Cy-Kick CS to keep ants off the house, he initiated a baiting program to reduce possible reinfestation. He chose PT Advance liquid ant bait for use in bait stations around the exterior perimeter of the building because the low percentage borate in its attractive liquid matrix is perfect for long-term suppression of the OHA. The PMP also set up regularly scheduled inspections for maintenance.

▶ PT Quick Tip: To avoid bait contamination, keep ant bait placements away from the treatment zone where residual products are applied.

(Although not prescribed in this case, another option to slow down reinvasion in the yard is to apply PT Advance 375A Select around the perimeter of the yard using broadcast application equipment and approximately 1.8 ounces of bait per 5,000 sq. ft.)

Non-chemical assistance
In addition to the pesticides prescribed for the elimination of OHAs, some non-chemical techniques were also part of the plan for long-term control. To keep ants outside the structure, the PMP recommended sealing exterior cracks and crevices, particularly around windows and doors, and trimming back trees and shrubs so they don’t touch the building. He also suggested removing an old woodpile to get rid of a prime nest site. Also, if the homeowner uses mulch in foundation flower beds, he should replace the mulch with “aromatic cedar mulch.” Recent research shows that eastern red cedar mulch may repel OHAs and they will not nest in it.

▶ PT Quick tip: If decorative plants around the building are infested with honeydew-producing insects, such as white fly, scale or mealy bugs, you may want to treat these plant-infesting organisms to eliminate the honeydew they produce - a prime food source for many ants.
where PT Tri-Die might leave a noticeable white residue.

In the basement, PT Advance 388B was applied using the PT 345 applicator set on “3.” Several placements were made along the active trail. The PMP used a bulb duster to apply PT 375A Select in cracks, crevices and voids adjacent to trails.

Outside, the PMP thoroughly wet the accessible nests, being careful to move obstructions and expose as much of the nests as possible.

- **PT Quick Tip:** Remember, nests can be anywhere, so be prepared to move things for access. Be sure to apply enough PT Cy-Kick CS to thoroughly wet the entire nest.

Once all of the nesting sites were treated, the PMP applied a perimeter treatment around the building exterior and paid particular attention to the area where the soil meets the foundation. (An application rate of 0.5 to 1.0 fluid ounces of PT Cy-Kick CS per 1,000 sq. ft. is recommended. Under most circumstances, extend your treatment up the foundation wall two to three feet and out from the foundation wall six to ten feet if local laws permit. This is the interception zone for your perimeter application.)

The PMP baited the base of the infested tree with several small piles of PT 375A Select adjacent to the active trails and the ants immediately carried it up the trunk.

Finally, a series of bait stations containing PT Advance liquid ant bait were installed at the corners of the structure outside of the treatment zone.

**COMMUNICATE**

Get cooperation and show the value of hiring a professional.

It’s essential the customer understand the complexity of the situation and the importance of continued service when faced with OHAs. Talk with your client about the concepts of super colonies, budding and opportunistic nesting to support the challenges of this pest. This “do-it-yourself” client already made one attempt, so the challenge here is to show him that hiring a PMP is worth the money.

Since it is common for OHAs to infest entire neighborhoods, it is important to make the customer feel like he knows about this ant and the complexity of its control, at least enough to talk to friends and neighbors. This will not only help him justify the importance of using a professional, but may give him an opportunity to offer your name as a referral. Also helpful is giving the homeowner a “OHA fact sheet” including a list of homeowner do’s and don’ts.

At the end, the PMP explained his treatment approach with emphasis on the value of controlling this pest with the Prescription Treatment approach. He also reinforced the need for an on-going program to reduce the likelihood of reinfestation and reviewed his recommendations for trimming branches and shrubs, removing the old woodpile and sealing some obvious gaps around windows and doors.

**FOLLOW-UP**

Review treatment techniques and schedule follow-up visit.

After the initial service for OHAs, the PMP scheduled a follow-up visit within a week to determine if he missed any nests and if foragers indoors were still a problem. He also needs to replenish baits and another thorough inspection of the home’s perimeter is recommended to identify new or undetected trails.

- **PT Quick Tip:** If the infestation is heavy, mark the trails and nests with surveyor flags for future assessment.

The follow-up visit is also a great opportunity to encourage the homeowner to follow through with on-site sanitation and landscaping recommendations you made, as well as review customer observations made during the week.