Stinging pests (yellow jackets, hornets, wasps, and bees) are most active during the summer and early fall when nest populations can exceed 60,000 insects. These insects are most dangerous in the vicinity of their nests. A passer-by is viewed as a threat to the safety of their home and is often chased out of the area by a sting(s). Pest control programs for these pests are based on the unique encounters, situations and surrounding where as wide scale, pre-emptive pesticide applications on routine basis are neither available nor practical to mitigate these arthropods.

**Misconception#1:** Yellowjackets are making nests under the eaves on my house. Most of those insects are not Yellowjackets. Those are paper wasps. Paper wasps make a nest consisting of a single comb, typically under the eave of a house or in a protected cavity like a pot or other container. With paper wasps, you can always see the comb where the young are being raised, and the wasps tending to them. Yellowjackets typically make their nests underground or in cavities, there are many levels of comb and the nest is always covered with a paper envelope. There are one or two species in the local southern California mountains that do make aerial nests that can be under the eave of a house but again, it will be covered with a paper envelope and will be much larger than a paper wasp nest. Also, paper wasps have elongate bodies with a thin, wasp-like waist. Yellowjackets are stockier and the waist is not apparent.

**Misconception#2:** Those aren’t wasps. Those are bees. Many people think Yellowjackets are not wasps because they do not have long thin bodies. Instead they think Yellowjackets are bees because of the similarity of the body form. Some people even refer to Yellowjackets as "meat bees" because of the similarity, which doesn't help sort out the confusion. Yellowjackets are indeed wasps. They seek out protein in the form of flesh like insects, carrion and unfortunately, our food.

**Underground Yellowjacket Nests:** Ground nesting German Yellowjackets will usually build underground nests, although some species will build their nests in hollow logs, trees, attics, between walls, or under eaves of structure. An underground yellowjacket nest is difficult to locate because the entrance is about the size of a nickel. It is important to note that a nest need not be on your property to cause a yellowjacket problem, since Yellowjackets can travel up to 1,000 feet (a distance of 3 football fields) from the nest to forage for food.

For more information on Pests & IPM contact the County IPM Manager
Naresh.Duggal@ceo.sccgov.org  Tel: 408-299-5159
From August through October, when Yellowjackets have built up large populations, they seek food such as carbonated beverages, cider, juices, ripe fruits and vegetables, candy, ice cream, fish, ham, hamburgers, hot dogs at picnics and other outdoor events. Many are attracted in large numbers to garbage cans. Others fly in and out of nests built around buildings and areas where people live, work and play, causing fear and alarm.

Santa Clara County’s approach to Yellow jacket & Feral Honeybee control

Yellowjackets have been a pain for decades. Control methods used against Yellowjackets work with varying degrees of success, however, some insecticides have been removed from sale because of high mammalian toxicity, environmental concerns and other regulatory issues. There is no silver bullet that can rid your area of Yellowjackets.

Many studies have been conducted to attract and control yellow jackets over relatively wide areas using insecticide baits. To date, baits have yielded limited success because yellow jackets are very selective in their food preferences, rejecting most prepared baits. At present control of yellow jacket in Santa Clara County Regional Parks is only limited to seasonal trapping using food & pheromone lures. Trapping using food & pheromone lures may help to control foraging yellow jackets at outside events (such as in County Regional parks), if the traps are spaced correctly and sufficiently in advance of the event to allow wasps to establish foraging patterns at the lure/bait site.

Emergency situations for these insects are checked through “Search & Destroy” action, such as followed by fire departments and other emergency response groups. To respond in such emergency situations, four (4) reduced risk pesticide products are in use at Santa Clara County as described in the table.

<table>
<thead>
<tr>
<th>Product</th>
<th>Active Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco Exempt IC</td>
<td>Rosemary Oil</td>
</tr>
<tr>
<td>Eco PCO jet</td>
<td>Eugonol, Phenothyl Propionate</td>
</tr>
<tr>
<td>Eco Exempt D</td>
<td>Clove Oil, Phenothyl Propionate</td>
</tr>
<tr>
<td>Victor Poison Free</td>
<td>Mint Oil, Sodium Lauryl Sulfate</td>
</tr>
</tbody>
</table>

Can we get rid of Yellowjackets by using the traps?

Probably not! There will always be more Yellowjackets being produced in the nest to replace them as you kill off the foragers. The true method of control would be to eliminate the nest.

For more information on Pests & IPM contact the County IPM Manager Naresh.Duggal@sccgov.org Tel: 408-299-5159
Couldn’t we get rid of the Yellowjackets by finding the nest and killing it?

In theory this is the best strategy. However, Yellowjackets forage for about 1 mile from their nest and therefore, if you wanted to get rid of all the Yellowjackets flying around your property, you would have to locate every nest within a 1 mile radius and eliminate it. In urban areas, this would mean searching around all your neighbor's homes. In natural areas, this would mean searching every tree trunk, rodent burrow, stream bank, pile of rocks and trash heap to see if there were Yellowjackets in there. This would be basically impossible.

Honeybees are beneficial insects, henceforth; no chemical is registered for its abatement. Beekeepers are often called to remove the feral honeybee colonies. Bees can be destroyed through “Search & Destroy” protocol as mentioned above. If a beekeeper cannot be located or if the swarm is in the high traffic area or any other emergency situation.

Suggestions to those who work and recreate outdoors: The following information describes those harmful arthropods that are encountered during everyday activities. Information about their habits has been provided and should be helpful to people who work and recreate outdoors.

Outdoor Events: The most effective measures for keeping yellow jackets intrusion to minimum are:

- Stay away from areas where insects congregate, including gardens and hedges, around fruit trees, and near garbage cans, picnic grounds and other areas that attract insects.

- Bees, hornets and other flying insects are attracted to bright colors and floral patterns. So during picnic season, dress in white, khaki and other light solids, covering as much of your body as possible during late summer and early fall when insects are at their peak. And avoid loose-fitting clothing. Insects can become trapped in filmy garments.

- Insects are attracted to smells, so avoid wearing perfume, colognes or other fragrances, including suntan lotion, cosmetics, hair spray and even deodorant, when around these bugs. And wear shoes rather than sandals outdoors to avoid contact with fire ants or low-flying bees, hornets or yellow jackets.

- If you leave your car's windows open, check before getting in to make sure there are no flying insects inside. Running the air conditioner with the windows closed while driving can help prevent on-the-road stings.

- Keep all food and beverage in covered containers. When dining outdoors, keep food covered until you're ready to eat, and clean up afterward.

- Frequently clean the outside surfaces of beverage and food service equipment.

For more information on Pests & IPM contact the County IPM Manager Naresh.Duggal@ceo.sccgov.org Tel: 408-299-5159
Clean up spills as they occur, whenever possible.

Use covered waste containers; thoroughly wash waste containers daily; replace plastic liner bags at least daily or as they become full.

Treat inside surfaces of trash containers with an effective yellow jacket repellent, where permissible.

Keep trash containers away from serving and eating areas.

Avoid wearing fragrant personal grooming products to outdoor events if they have caused bad experience in the past. Insect repellents work well for biting, non-venomous insects, but not against angry stinging insects.

If you encounter the insects, slowly back away. Don't swat at them, flail your arms or make sudden movements that could trigger an attack.

Install strong fans (if permissible), to blow across areas to keep yellow jackets away.

If you know you are allergic to insect venom, wear a Medic-Alert or other type of medical identification.

Scrape out the stinger If a honeybee stings you, the best way to avoid additional pain is to scrape out the stinger with a credit card or a long fingernail or a dull table knife. If you try to pull it out, you'll squeeze the venom sac and accidentally release more venom. But scraping it out leaves the venom sac undisturbed. Place the edge of a dull table knife firmly against your skin next to the embedded stinger. Applying constant firm pressure, scrape the knife across your skin surface and the stinger. This removes the stinger without injecting more venom, which is what happens when you remove the stinger with tweezers or your fingers.

To ease the pain of a sting, take a pain reliever such as acetaminophen, ibuprofen or aspirin. However, children never should be given aspirin because of the risk of Reye's syndrome, a rare, but life-threatening illness. You also could make a paste by mixing water and meat tenderizer and applying it directly to the bite. Insect venom is protein-based, so meat tenderizer breaks down the protein and stops the pain. However, you must use a brand that contains papain, the active venom-busting ingredient.

In case of emergency call your local poison control center at Santa Clara Valley Medical Center Regional Poison Center 750 South Bascom Ave, Suite 310 San Jose, CA 95128; (408) 299-5112; (800) 662-9886

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