SUMMARY:

Wasps can become quite numerous in Toronto and the GTA, particularly in the late summer months - Aug & Sept.

LIFE CYCLE:

- The life cycle of the yellow jacket consists of the egg, larva, pupa and adult life stages.
- Queen wasps usually emerge from their hibernation around mid. April, begins feeding and searches for a nest site to begin her new colony.
- Once a location is found, she begins construction of the nest the queen lays her eggs in the cells and protects them until the larvae emerge. The larvae are fed until they pupate.
- Adults emerge from the pupae approximately three weeks later.
- Worker wasps have a sting, which, unlike a bee's sting, can be used several times. Their active season is April – October
- Worker bees feed on a sweet nectar produced by the pupae
- During August to September the nests will start to come to an end the last hatchings of the season are the new queens and males.
- Because there are no more pupae, around August time wasps can be problematic coming into buildings or buzzing around barbeques in search of sweet substances
- As the weather turns cold at the end of October the new queens, after mating, will search for a
 place to hibernate over winter. The males, all of the worker wasps and the original queen who
 started the colony will all die.
- All nests die out at the end of each season and the nest is never used again

Spray availability:

I could only find wasp killer (destroy the nest) – no "wasp repellent" is available in Canada.

Boots Pharmaceuticals (UK) carries <u>Repel Insect Repellent</u> for wasps – active ingredient, Ethyl butylacetylaminopropionate (see page 4 for details on this product) – if you know someone in the UK, perhaps they could send you some.

Skin and clothing sprays:

Insect Repellents (usually with deet) are for "biting" insects – those that feed on blood. Spray works because the biting insects don't like the repellent.

Wasps, bees and hornets are "stinging" insects – they are attacking, not feeding and so are not repelled by these sprays. Their stingers are filled with poison, which is the reason for stronger reactions.

I found recommendations for "natural" and "homemade" wasp and hornet sprays but no studies have been done on their effectiveness - the only proof available is anecdotal. Further information on sprays can be found on page 3.



Wasp Repellent Report

Area deterrents:



Sprays and foams are available to kill nests, if found.

You can buy a "fake" paper wasp nest to hang in your yard – wasps will not build nests too near to each other. As most wasps and hornets are solitary (they do not live in colonies), this remedy will have limited success

Other methods include water traps in bottles and bags. Eg, Cut a 1 litre bottle & stick the neck part into the body.









Suggestions for organic alternatives: Read more at Buzzle: http://www.buzzle.com/articles/wasp-repellent.html (I could not find any studies or information that any of the following are actually effective in repelling wasps)

Spray bottle (carry at all times) filled with:

Citrus or Mint Oil Spray - Oil sprays, such as citrus or mint, stimulate insects' nervous systems to the point where they have a hard time breathing

Eucalyptus oil combined with citronella oil is also an effective remedy for wasps. Combine equal amounts of eucalyptus oil, menthol oil, teak oil and citronella oil to make this repellent. Spray this mixture on your premises to repel wasps and to prevent them from nesting in that area. Even citrus oil extract can work wonders for wasp control. All you have to do is to spray the extract in and around your house. It is said that citrus oil extract can kill wasps, once these insects come into contact with it. Some people also use blue cypress oil for repelling wasp. You may also use neem oil, for this purpose.

Peppermint oil can also be used to ward off wasps. Add a tablespoon of peppermint oil to a liter of water mixed with a tablespoon of unscented shampoo. Spray the solution to get rid of wasps.

Essential Oil Sprays - Mix ¼ ounce of lavender oil with ½ ounce citronella oil and 1/8 ounce each of pennyroyal oil, eucalyptus oil, lavender oil, tea tree oil and jojoba oil, to prepare a homemade wasp repellent. This mixture has to be diluted with sixteen ounces of jojoba oil, before applying on skin. If you want to use it as a wasp repellent spray, then replace jojoba oil with the same amount of vodka

Soap and water

Sound – high frequency

The use of sound to repel wasps has not been scientifically proven, though products exist that claim to do just that. According to the Biocontrol Network, "it would take years and millions of dollars to test the effects of any electronic pest control device" on even one household pest group such as wasps.



ADVICE FOUND ONLINE FOR DEALING WITH WASPS

NUMBER ONE PIECE OF ADVICE FOUND EVERYWHERE:

If you see a wasp or hornet <u>do not swat it</u> and do not wave your arms around. Stand up and walk away (calmly). They are looking for food and usually only attack if threatened. Swatting and waving arms is threatening.

Found an entomologist who works at a pest management company, and asked if he knew of an insect repellent for wasps (for skin and clothing) that can be safely used on children between 6 months and 12 years. Response:

Ask the Entomologist Question from TrustTerminix.com

Hello Bonnie,

There is no personal wasp repellent available. Mainly because wasps are not necessarily attracted to people. Unlike mosquitoes (for which there is repellent for) which are attracted to people because they feed on our blood, wasps do not purposely go after people unless they feel threatened by them. Social wasps such as yellow jackets, paper wasps, and hornets are generally more aggressive and will attack when they feel their nests is in danger. Solitary wasps such as cicada killers, mud daubers, and sand wasps are not aggressive toward people unless they are stepped on, grabbed, or personally threatened. Sometimes the males of solitary species will act aggressive while they are waiting for females to emerge and they chase off other animals that enter into their perceived "territory". However, males cannot sting and are essentially harmless. Generally, a wasp will not sting a person for no reason. When a wasp is flying around you it is usually just checking you out and it will soon discover that you have nothing that it wants and it will fly away. If you start swatting at it, then it will feel threatened and defend itself by stinging.

What Attracts Wasps

Wasps feed on other insects in the spring, such as green flies that can be found on rose plants. Therefore, they are also attracted to other sources of protein, such as fast food hamburgers and chicken.

In the fall, wasps feed on nectar and so are attracted to things such as sweet smelling foods, perfumes, suntan lotion, hairspray and cosmetics.

Websites:

BUGSMART

Remove food sources. In spring and early summer, wasps are attracted to protein foods. Any food left outdoors, such as pet food, picnic scraps, open garbage containers or uncovered compost piles should be removed or covered. Wasps imprint food sources, and will continue to search an area for some time after the food has been removed.

In late summer and early fall, the wasp food preference turns to the sweet. Their behavior is also more aggressive. Open cans of pop, fruit juice, fallen apples beneath fruit trees and other sweet food sources will attract wasps. Be sure to cover drinks and open food containers, keep a lid on the compost and avoid walking barefoot near fruit trees. Remove any fallen fruit rotting on the ground.



Wasp Repellent Report

Avoid swatting. Swatting and squashing wasps is counterproductive. When a wasp is squashed, a chemical (pheromone) is released which attracts and incites other nearby wasps. It's best to walk away from a hovering wasp.

Avoid wearing bright colours or floral patterns. If you look like a big flower, you may be attracting the curious wasp looking for nectar.

Minimize use of perfumes and other strong scents. In the later part of the summer, wasps are attracted to sweet smells.

DAVID SUZUKI.ORG ADVISES:

How to deter wasps

- Don't wear bright colours
- Don't wear sweet smells like fragranced body lotion or shampoo
- · Cover meat and fish when barbecuing
- Don't leave out sugary drinks like cans of pop

Clean up rotting fruit from your fruit trees

- Cover your compost pile with a lid or lots of "browns" like dry leaves
- Keep your trash bin clean
- Stay away from garbage containers
- **Never swat a wasp.** They can release a pheromone that will attract other wasps and signal them to be aggressive. It's best to move away calmly.
- **Do not wave your arms** and try not to panic as this will also excite the insect. If you enter an area with many stinging insects, walk calmly and slowly away.
- Power tools such as lawnmowers, weed eaters and chainsaws will aggravate the insects. When using these tools, be aware that the tools may provoke the insects or in some cases, cause the insects to swarm.
- Serve sweet drinks in containers with lids and straws. Wasps will often crawl into pop cans and can be "drank" accidentally. Keep your thumb over the can opening if a container with a lid is not available.

Boots Pharmaceuticals Repel Insect Repellent Spray Wasp provides effective protection against wasps, bees, hornets and horseflies.

- Scientifically proven.
- Wasps, bees, hornets and horseflies.
- Easy to apply, light and non greasy formulation.
- Absorbs easily into the skin.
- Suitable for children from 6 months plus.

How to Use

Always read the product information before use.

- Spray evenly from a distance of 15cm on all exposed areas of skin, avoiding the face.
- Do not spray directly onto face. To apply to face, spray into palm of hand and apply to face, avoiding
 eyes and lips. Use sparingly around ears.



Wasp Repellent Report

- Renew application every 4 hours or as necessary and after swimming. For best results apply and allow to fully dry before applying sunscreen.
- To minimise the risk of being stung when wasps or bees are present, avoid any sudden movements or gestures.
- If you or anyone within your family has known severe allergic reactions (e.g. Anaphylaxis) to wasp stings, they should continue to use their emergency treatment if stung.

Hazards and Cautions HIGHLY FLAMMABLE.

For external use only. Keep out of reach of children. Do not use under clothing. Do not allow children to handle this product. Use only as directed. Do not use on the eyes or the lips. If product gets into eyes rinse immediately with clean water. Avoid contact with sore, sensitive or broken skin. If irritation occurs, discontinue use immediately. If pregnant or asthmatic, consult your doctor before use. Store below 30 °C.

Ingredients

Aqua, Alcohol denat., Ethyl butylacetylamino propionate (10%), Dipropylene glycol, Parfum

Active ingredients

Ethyl butylacetylaminopropionate

