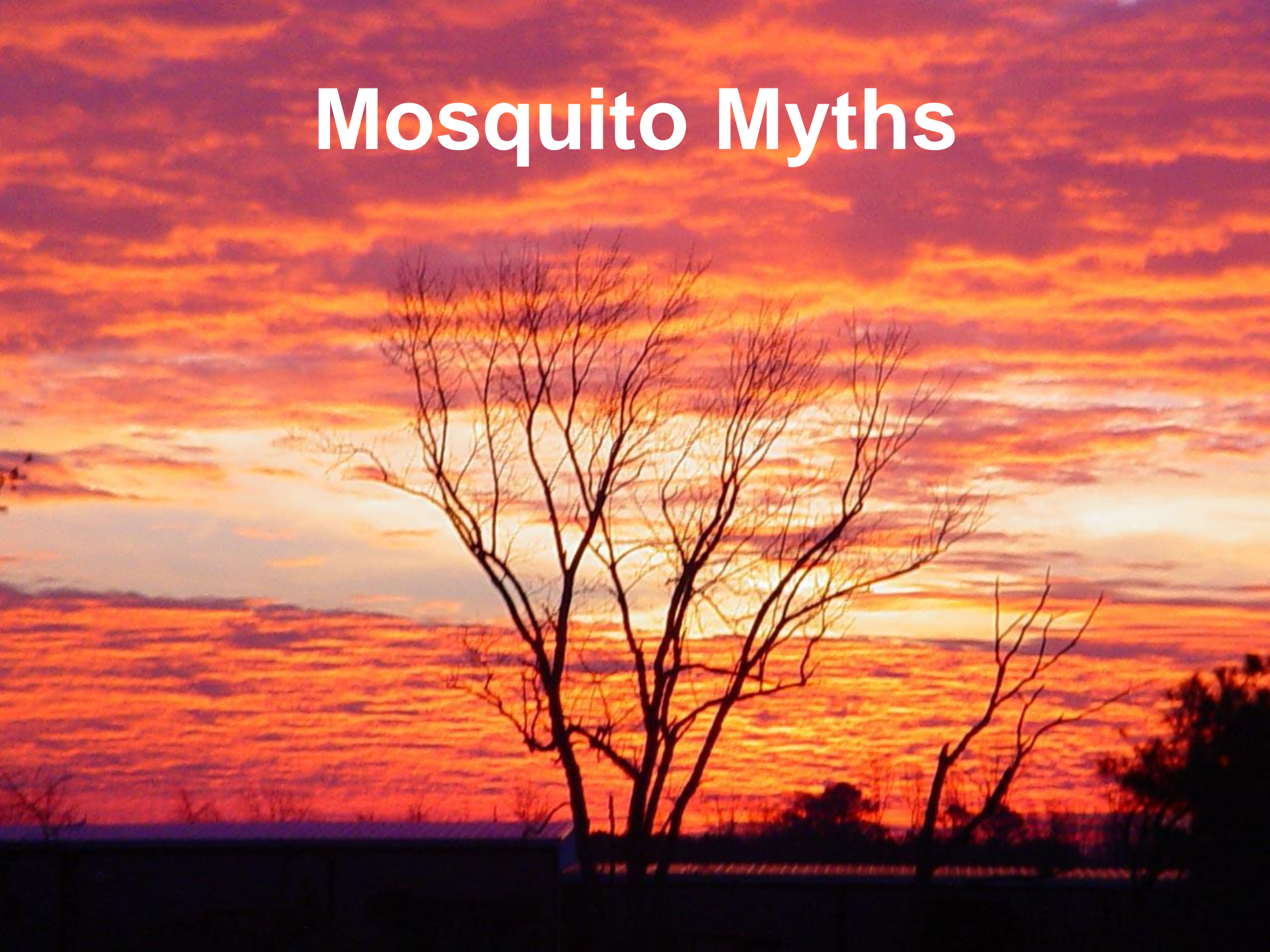


# Mosquito Myths





# **Magnificent Mosquito Myths**



# MYTH

Oxford English Dictionary

"A widespread but untrue or erroneous story or belief".

"A popular conception of a person or thing which exaggerates or idealizes the truth."









“I took the initiative in creating the internet.”  
March 9, 1999





“Everything you read on the internet is true!”

- People are generally gullible and tend to accept statements as truth unless proven otherwise
- Example: Student term paper
- Email Forwards

# Myth # 1

Lemon Fresh Joy dishwashing detergent kills mosquitoes.

Started in 2002

“Place a couple of drops of Lemon Fresh Joy in a white plate of water and set on porch or patio. Mosquitoes flock to it and drop dead by the hundreds.”





# FALSE!

According to Snopes.com-

“A few drops of Lemon Fresh Joy is neither an effective mosquito repellent nor a concoction that will cause flocks of mosquitoes to fall out of the sky dead!”

“There is nothing special about Lemon Fresh Joy that attracts hordes of skeeters!”

USDHHS lists the ingredients as surfactants (soap) ethanol, water, buffering agents, and perfumes

Proctor and Gamble-“not recommended for this purpose”

## MYTH #2

Originated in email August 2007

- “ A man sprayed the lawn and deck floor with Listerine and the little demons disappeared!”
- “I tried this on my deck and around all my doors. It works-in fact it kills them instantly! It will last for several days.”

# FALSE!

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- ❑ Listerine was invented in the 19<sup>th</sup> century as a powerful surgical antiseptic. It was later sold as a floor cleaner and a cure for **Gonorrhea**.
  - ❑ In the 1920's it was pitched as a cure for "chronic halitosis", a faux medical term created by Listerine's advertising group to describe bad breath.
  - ❑ By naming and creating a medical condition for which consumers now felt they needed a cure, Listerine became a household name.
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- ❑ Listerine has also been marketed as a remedy for colds, but FDA ruled claims were false (Fined over \$11 million).
  - ❑ Listerine contains up to 26.9% ethanol and can be used as an effective solvent.
  - ❑ Listerine has no repellent properties for mosquitoes and if you sprayed it on doors, plants, etc. as claimed, it can actually cause damage.
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# MYTH #3

BATS ARE AN EFFECTIVE MOSQUITO CONTROL OPTION.

“Bats eat up to 600 mosquitoes per hour.”

Thus they are nature’s most effective form of mosquito control.



# FALSE!

- M.D. Tuttle study (1950's)-bats released in a room full of mosquitoes caught up to 10 per minute.
- This value was extrapolated to 600 mosquitoes per bat per hour.
- A colony of 500 bats could thus consume over 250 thousand mosquitoes per hour.




# Premise is flawed!

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Study was conducted to measure bat's **echolocation abilities**, not dietary preference!

- Will a lion eat a mouse?
- Will a bat eat a mosquito?

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- In one Virginia city the new (young) city manager recommended that the city do away with Mosquito control and build hundreds of “bat houses” as a cost cutting measure.
  - Bats are notorious carriers of rabies. There were 36 documented human deaths from rabies infections in the U. S. from 1990-2004.
  - Monoclonal antibody analysis and genetic sequencing indicate 34 of the 36 deaths were associated with bat variants of the rabies virus.

# MYTH # 4

Purple Martins effectively control mosquito populations.








# FALSE!

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## Purple Martin Conservation Association

Martins, like all swallows, are aerial insectivores. They eat only flying insects, which they catch in flight. Their diet is diverse, including dragonflies, damselflies, flies, midges, mayflies, stinkbugs, leafhoppers, Japanese beetles, June bugs, butterflies, moths, grasshoppers, cicadas, bees, wasps, flying ants, and ballooning spiders. **Martins are not, however, prodigious consumers of mosquitoes as is so often claimed by companies that manufacture martin housing.**



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An intensive 7-year diet study conducted at PMCA headquarters in Edinboro, PA, failed to find a single mosquito among the 500 diet samples collected from parent martins bringing beakfuls of insects to their young. The samples were collected from martins during all hours of the day, all season long, and in numerous habitats, including mosquito-infested ones.



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Purple Martins and freshwater mosquitoes rarely ever cross paths. Martins are daytime feeders, and feed high in the sky; mosquitoes, on the other hand, stay low in damp places during daylight hours, or only come out at night.

In fact, more mosquitoes feed on purple martins than martins feed on mosquitoes!

# MYTH # 5

# BUG ZAPPERS REDUCE MOSQUITO NUMBERS




# FALSE!

- One study conducted in homeowners' backyards showed that of the insects killed by these devices, only 0.13% were female mosquitoes. An estimated 71 billion to 350 billion beneficial insects may be killed annually in the United States by these electrocuting devices.  
(AMCA)



**People love to hear the  
“SNAP, CRACKLE, and POP”  
as insects hit the grid and  
literally “Explode” in a  
shower of sparks and insect  
body parts.**





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That sound may also signal the potential for a shower of micro-organisms including viruses cascading on to the surrounding area. Because of the **airborne bacteria** and **virus laden particles** produced by the explosion of these electrocuted insects, researchers recommend they not be used in food handling areas, hospitals, day care facilities, or any of a variety of places where insects need to be controlled.

- The operation of these bug zappers results in the generation of high numbers of airborne insect particles. That presents an additional problem because we can breathe those particles, and it is well documented that insect particles can be very allergenic.

# MYTH # 6

“Tie a dryer sheet to your belt loop or rub on your skin to keep mosquitoes away.”



# FALSE!

- While hundreds of so-called experts on the web claim this works, there is no scientific evidence to back up this claim.
- In fact, some flowery perfumes can act as attractants rather than repellents.
- Some dryer sheets contain skin irritants-particularly for small children!





# Disclaimer!

## (Procter and Gamble)

**Bounce** sheets are not intended, registered or approved for use as an insect repellent or any other pesticidal purpose.



# Are “soft” Clothes worth it?

**Benzyl acetate:** Linked to pancreatic cancer

**Benzyl Alcohol:** Upper respiratory tract irritant

**Ethanol:** On the Environmental Protection Agency's (EPA) Hazardous Waste list and can cause central nervous system disorders

**Limonene:** Known carcinogen

**A-Terpineol:** Can cause respiratory problems, including fatal edema, and central nervous system damage

**Ethyl Acetate:** A narcotic on the EPA's Hazardous Waste list

**Camphor:** Causes central nervous system disorders

**Chloroform:** Neurotoxic, anesthetic and carcinogenic

**Linalool:** A narcotic that causes central nervous system disorders

**Pentane:** A chemical known to be harmful if inhaled

# MYTH #7

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“Mosquito Plants” will repel mosquitoes from your yard or patio!



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- A recent internet search revealed over 20 species that supposedly “repel” mosquitoes.
  - Marigolds, catnip, rosemary, citronella grass (lemon grass), geranium, beautyberry, ageratum, etc. are but a few of the many listed.
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# Partially True!

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- ❑ PROBLEM! It is the concentrated oils of these plants that have power to repel (if any).
  - ❑ If you want to spend your evening crushing or distilling plants on your patio, then this is the option for you.
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## Myth # 8

*"Bob, a fisherman, takes one vitamin B-1 tablet a day April through October . He said it works. He was right. Hasn't had a mosquito bite in 33 years. Try it. Every one he has talked into trying it works on them. Vitimin B-1 ( Thiamine Hydrochloride 100 mg.)"*



# False!

- Who is “Bob”? What medical experience does he have? Why can't he spell “vitamin” correctly?
- RDA for Thiamine is 1.5 mg/day-100 mg is 66 times RDA
- Most of this would be excreted in urine

- "Symptoms of a thiamine overdose may include a feeling of warmth, weakness, sweating, nausea, restlessness, difficulty breathing, tightness of the throat, bluish colored skin, and **death**."
- Tested by Canadian military and found no repellent value
- CDC found-does not repel mosquitoes

# Myth # 9

## Ultra-sonic devices repel Mosquitoes


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# FALSE!

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- ❑ Devices are said to imitate the frequency of wing beat of male mosquito or of dragonflies
- ❑ A pioneering study testing five different ultrasonic devices against four mosquito species convincingly demonstrated that ultrasound in the 20-70 kHz range used by these devices had no effect on reorienting flight by female mosquitoes either toward or away from human subjects. (AMCA)

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- Additional tests have shown that sound generators capable of a wide range of frequencies were also ineffective in repelling mosquitoes. The fact is that these devices just do not work - marketing claims to the contrary.

# MYTH # 10

Carbon Dioxide Traps Control Mosquitoes!





# TRUE!

- Mosquito Magnet, Mosquito-Vac, Mosquito Deleeto, Flowtron, Guardian, etc. brands use Propane to produce CO<sub>2</sub>, Octenol, or Lurex in various combinations
- Cover up to an acre or more
- **LOCATION, LOCATION, LOCATION!**
- Not all mosquitoes attracted will be in the trap! Best placed in your neighbors yard!

# OTHER MYTHS!

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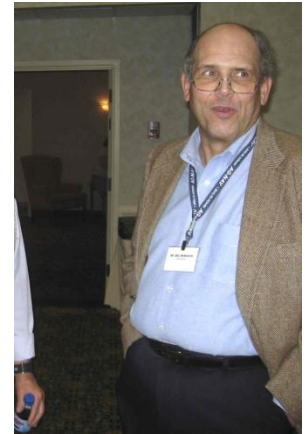
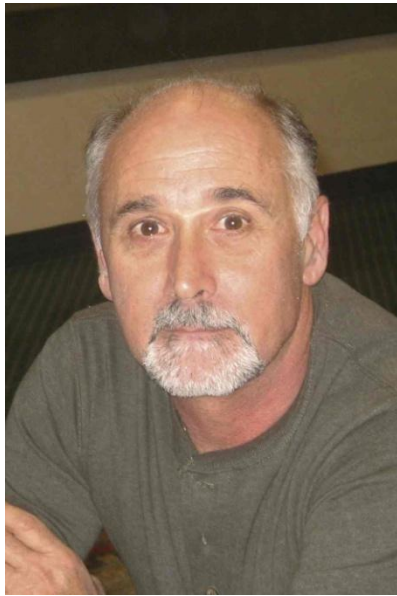
- Avon Skin-So-Soft repels mosquitoes
- If the original works so well, why has Avon released 5 new products with *Picardin* or *IR3535* ?
- Eating garlic, onions, bananas, etc. repels mosquitoes
- NO SCIENTIFIC EVIDENCE  
Pro or con!



# Newest Myth!

Constant exposure to mosquito larvacides and adulticides will cause excessive hair growth in males.

# Jury is still Out on this One!





**THAT'S ALL FOLKS!**







BR

Gale Force