

Mosquito Bucket Challenge

Introduction, Background, Details, How-To – by St. James Birders

Mosquito control is essential for comfort, health, and wildlife protection. Traditional fogging harms far more than mosquitoes — it kills pollinators, caterpillars, fireflies, dragonflies, and the insects that birds depend on.



The **Mosquito Bucket Challenge** is an eco-friendly grassroots campaign launched by the non-profit organization [Homegrown National Park](#)—co-founded by renowned entomologist Dr. Douglas Tallamy—to combat backyard mosquitoes without toxic chemicals. Recognizing that standard commercial yard fogging and pesticide sprays inadvertently devastate local biodiversity—killing pollinators, fireflies, dragonflies, and birds—Homegrown National Park commercialized the concept into a public movement.

WHY MOSQUITO BUCKETS WORK

Mosquitoes require standing water to reproduce.

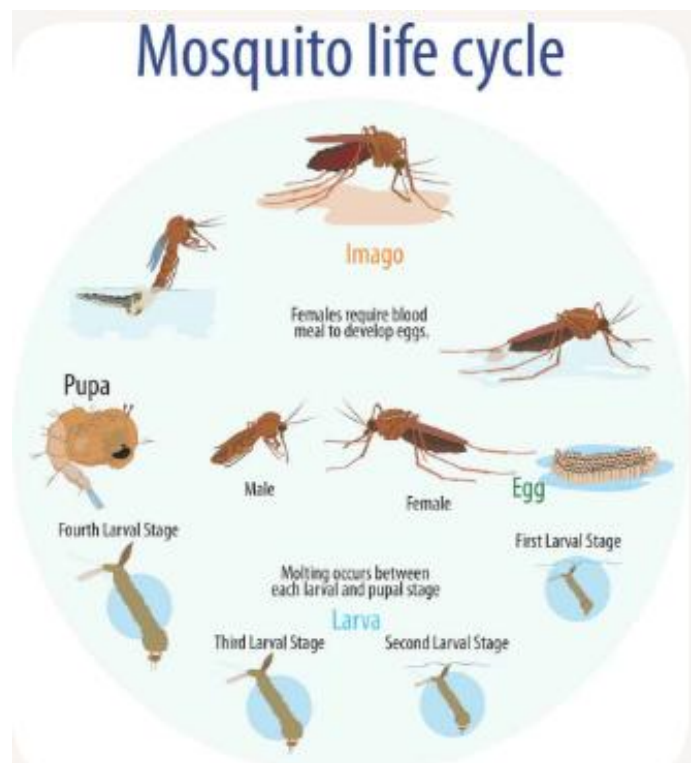
Their life cycle includes:

- Eggs
- Larvae
- Pupae
- Adults

The bucket interrupts this cycle at the **larval stage**, where control is most effective and safest.



MOSQUITO LIFE CYCLE



THE SCIENCE BEHIND BTI

Bti (Bacillus thuringiensis israelensis) is a naturally occurring soil bacterium used worldwide as a highly specific biological larvicide. It targets and eliminates the aquatic larvae of mosquitoes, black flies, and fungus gnats, without harming humans, pets, wildlife, or beneficial insects.

It does not harm:

- Birds
- Bees
- Butterflies
- Pets
- People
- Aquatic wildlife

This makes Bti the gold standard for ecological mosquito control.

HOW TO BUILD YOUR MOSQUITO BUCKET

Materials Needed

- 5-gallon bucket
- Water
- Leaves or grass
- One Bti dunk
- Shady outdoor location

Step-by-Step Instructions

1. Fill bucket halfway with water
2. Add leaves or grass
3. Add one Bti dunk
4. Place bucket in shade
5. Refresh monthly



WHERE TO PLACE YOUR BUCKET

Ideal Locations

- Shaded areas
- Near shrubs or damp vegetation
- Along property edges
- Away from patios and walkways

Avoid

- Full sun
- High-traffic areas
- Places where pets may drink

Choose a shaded, low-traffic area where mosquitoes are likely to gather. Corners of your yard or along property lines often work well.

Mosquito Bucket Challenge

Control Mosquitoes – Protect Wildlife
A Safer Alternative to Fogging



HOW IT WORKS

1. Fill & Bait

Fill a 2-5 gal bucket 2/3 with water and add a handful of leaves or grass.

2. Add Mosquito Dunk

Use 1/4 of a mosquito dunk (wildlife-friendly & kid-safe). Replace dunk monthly.

3. Add Cover or "Rescue Stick"

Add wire mesh or a lid with holes to keep kids and pets out, or place a stick inside so small animals can climb out.

4. Place & Label!

Set buckets in shady spots around your yard. Add our sticker or a sign to let neighbors know what it is.

WHY IT WORKS

The bucket draws in mosquitoes already nearby (not from far away), then stops the next generation before it hatches.

It works because of Bti, a natural bacterium that targets mosquito larvae but doesn't harm biodiversity like bees, birds, or butterflies.



WHY NOT FOG?

Fogging hurts more than it helps. It kills wildlife, is harmful to your pets and kids, and doesn't even stop mosquitoes at the source — it misses the larvae, where real control happens.

SPREAD THE WORD WITH A STICKER

Help your bucket teach your neighbors with the official sticker (vinyl or printable).



LEARN MORE

Scan for how-to, FAQs and advocacy tools:



MosquitoBucketChallenge.org

A project from



Cofounded by Doug Tallamy, author of *Nature's Best Hope*



COMMUNITY IMPACT

One bucket helps. Ten buckets help more. A neighborhood participating together can reduce mosquito populations **dramatically**. This is why the Mosquito Bucket Challenge is so effective — it scales beautifully.

★ CALL TO ACTION

Join the Birders of St. James Mosquito Bucket Challenge.
Protect your home. Protect our birds. Protect our ecosystem.



We found out about this unique system late in the season this year. It's best to start early in the mosquito season, before populations build, but it's still effective by preventing an increase in population once it is setup.

Use multiple buckets if you have a larger yard or multiple mosquito-prone areas. You can speed up the process by letting the water sit in the sun for a few days before placing your bucket. It may be helpful to drill a small hole at your desired water line so excess rain can drain and prevent overflow.

Additional Resources:

- <https://vimeo.com/1185005664?fl=pl&fe=sh>
- <https://www.youtube.com/watch?v=TqcDZDNtP-0&t=1s>



**BIRDERS
OF ST. JAMES**