MOSQUITO RSVP FACT SHEET

What is Mosquito RSVP?

Mosquito Rapid Surveillance for Vector Presence (or RSVP) is an 'early-warning' urban mosquito monitoring program for 2 invasive species into South East Queensland (SEQ). RSVP is built on a voluntary partnership between participating businesses, councils, and Queensland Health. The aim of RSVP is to detect Aedes aegypti and Aedes albopictus. Hopefully, an early detection can be eliminated before the mosquitoes spread into other suburbs. In addition to annoying day-time bites, their presence would create opportunities for outbreaks of exotic diseases, such as dengue, Zika, and chikungunya.

Common names for *Ae. aegypti* include 'yellow fever mosquito', 'dengue mosquito' and 'Zika mozzie'. Common names for *Ae. albopictus* include 'Asian tiger mosquito' and 'Zika mozzie'. Both species already occur in Queensland and are periodically detected at Brisbane's airport and seaport. To prevent their escape into SEQ each detection triggers an emergency control operation, coordinated between biosecurity, Queensland Health, and Brisbane City Council.

Urban mosquitoes do not breed in swamps, creeks, or puddles. Instead, the mosquitoes will breed in in the yards of businesses and houses by using the many types of containers that hold water (below, above and at ground-level) for over seven days. They don't fly far (500 m). The eggs are cemented to the waterline and can survive for months when dry. Dry eggs can travel on freight (e.g., car or truck tyres) transported within and between countries. These factors can make them very difficult to find early in an invasion.

We need your help to enable regular monitoring along the freight transport pathways into SEQ. The nearest towns with *Ae. aegypti* are on the edge of SEQ (e.g., Wondai, Goomeri, and Murgon). RSVP works by linking the eggs from your egg trap (ovitrap) to a powerful molecular screening method by Queensland Health. The test can detect one of the target mosquitoes amongst 5,000 of the local species. The eggs from your ovitrap are regularly collected, counted, and combined with those from the other commercial premises (approx. 10 in each run) to test that *Aedes aegypti* and *Aedes albopictus* are absent.

What is an ovitrap?

Ovitraps are buckets of water in which the females of urban species will lay eggs.

- 1. Bucket (black or red) female urban mosquitoes see this and check if it has water
- 2. Water tap water that the females can smell
- 3. Screen on top mesh removes a drowning hazard for small children
- 4. Ovistrip a tape of material on which the mosquito eggs are laid
- 5. Lucerne pellet rabbit food that adds a little organic matter to attract females
- 6. (S)-methoprene pellets a chemical that stops mosquitoes in the bucket growing to adults.

Will the ovitrap breed mozzies?

No. We add (S)-methoprene (a mimic of an insect growth regulator) pellets to the water to prevent any 'baby' mosquitoes (wrigglers) becoming adults. It is registered for use in human drinking water.

For information on (*S*)-methoprene, refer to:

Safety Data Sheet

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What do I need to do?

Your business has provided the most important part – permission to host an ovitrap.

Please ignore the ovitrap, There is no expectation to contact us if the bucket is tipped over or damaged. We will normally service it each fortnight. If you want to change the position, please contact us, so that we can find it next time.

Why was my business chosen?

SEQ is highly vulnerable to invasion from towns in Queensland where *Ae. aegypti* is established and through international freight pathways. The number of times these target species has been detected in Brisbane international ports has steadily increased in recent years.

RSVP was started in 2017 as a new way to monitor target species in commercial precincts. Your business was chosen because it is within, or near, a commercial precinct. Selected business have:

- a footprint where any containers in the yard to be filled by rainfall,
- access provisions that enable our staff to quickly and easily service the ovitrap,
- managers that are willing to participate.

Where are the other RSVP sites in my area?

Privacy laws (*Information Privacy Act 2009 (Qld*) prevent us sharing your address with other businesses or the community. You can see the approximate Brisbane locations in the map below. These sites may change from time to time.

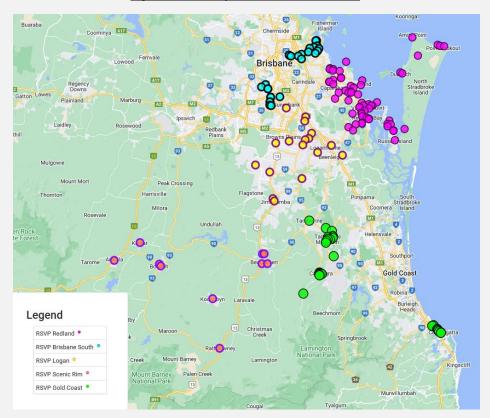


Fig. 1. RSVP Trap Sites in Metro South

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Can I get my results?

Yes, your results are available upon request. Your business is a valued contributor to the *Regional RSVP Program*.

A summary will show how the egg numbers from your business compare with the total egg numbers for all ovitrap sites in your run. An example is provided below.

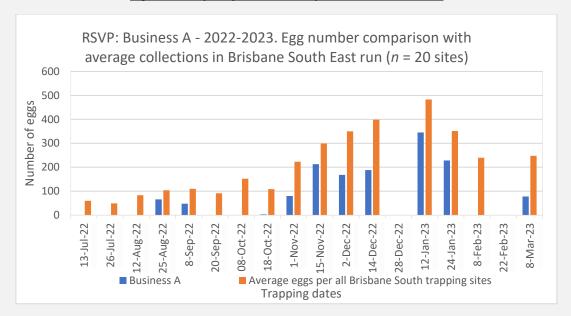


Fig. 2. Example of an RSVP Trap Site in Metro South

Benefits to my business in participating?

Your business has access to regular urban mosquito monitoring data to assure your workers, managers, council, and Queensland Health that an invasion by target species has not taken place nearby (within the RSVP run).

Reducing the number of breeding sites will help provide a safer and more comfortable work site. Please refer to the Queensland Health links below:

- 1. Prevent mosquito borne diseases | Queensland Government
- 2. Resources and research about mosquito borne diseases | Queensland Health

You will also be among the first to know if there is a detection in your RSVP run or council. There has been no detection of target mosquitoes in SEQ since the RSVP program started in 2017.

The RSVP team thanks your business for participating and looks forward to continuing our partnership.

Your contacts

Metro South Public Health UnitGold Coast Public Health UnitLocal GovernmentPh: 07 3156 4000Ph: 07 5667 3200• Brisbane City Council

Email: MSPHU RSVP Program Email: EH GoldCoast@health.qld.gov.au

Logan City Council

Scenic Rim Regional Council

Redland Bay City Council

City of Gold Coast