



***Aedes albopictus* suppression during two Dengue outbreaks in the Emilia-Romagna region (Italy) in 2024**

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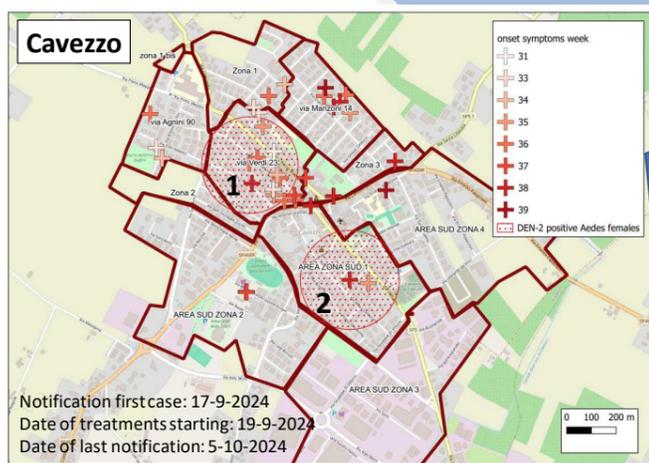
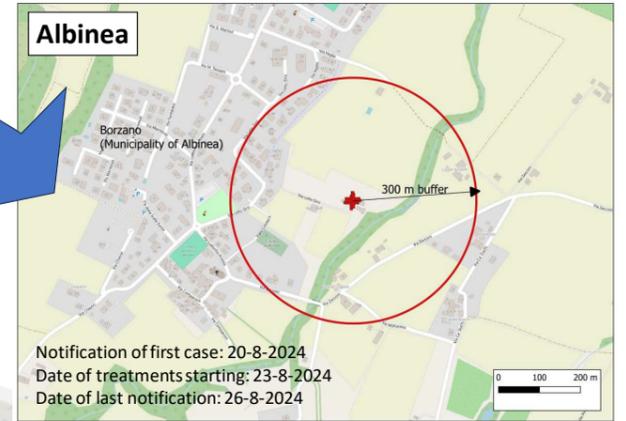
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In the summer 2024, two Dengue serotype 2 outbreaks occurred, in the Emilia-Romagna region (Northern Italy), one in the municipality of **Cavezzo** and the other in the municipality of **Albinea** (locality of **Borzano**). In both contexts *Aedes albopictus* control measures provided by the **Regional Plan for the Surveillance and Control of Arboviruses** were promptly activated including: public communication, **larvicidal** and **adulticidal** treatments both in public and private (door-to-door) areas, **breeding sites removal** in the territorial sectors into which the urban areas were divided.

Outbreaks and control actions

Albinea (Reggio-Emilia province)

- Borzano is a locality in the municipality of Albinea.
- 2 confirmed + 1 probable cases (index case identified).
- 1 treated area of 300 meter buffer around first case.
- PDMS Silicone based product as larvicides and pyrethroid (cypermethrin and tetramethrin) as adulticides.



Cavezzo (Modena province)

- 7,200 inhabitants.
- 44 Dengue cases.
- Aedes females positive to DENV-2 collected in two areas before treatments.
- 10 sub-areas treated.
- PDMS Silicone based product as larvicides and pyrethroid (deltamethrin and prallethrin) as adulticides.

Discussion

The outbreak of Albinea (Borzano) was stopped immediately following notification of the index case (imported). **In Cavezzo**, the index case (imported) was not found and retrospectively it has been possible to clarify that the first notification was **received 8 weeks after the start of the epidemic event**. The vector control treatments were started **within 48 hours** from the first notification and the **synergy** between pest control operators, entomologists, public health, citizens and the local administration **was critical** for the rapid containment of the outbreak.

