NEWS LESSON

How Do You Persuade a City to Welcome Mosquitoes?



BEFORE YOU READ

1 Warm up

Talk about these questions with a partner.

1. What would you think if someone said they were releasing more mosquitoes near your home?
2. What makes you trust a surprising scientific idea?
3. Who would you want to explain a new local health project?

2 Key words

These words are in the article. Write the letter of the meaning (A to H) in each box.

1	**inaugurated**	☐	A	coming one after another
2	**conveyed**	☐	B	communicated an idea or message to someone
3	**successive**	☐	C	live or exist together at the same time
4	**consent**	☐	D	the way that something works
5	**vectors**	☐	E	creatures that carry a disease from one living thing to another
6	**coexist**	☐	F	permission, or agreement to something
7	**sanitation**	☐	G	officially opened, often with a ceremony
8	**mechanism**	☐	H	the systems that keep places clean, such as drains and waste removal

3 Read

Read the article and underline the key words from task 2. The paragraphs are numbered.

A plant in Curitiba breeds Aedes aegypti carrying Wolbachia, which makes wild mosquitoes poorer at transmitting infection. Residents are asked to accept more of an insect they dislike for a slow, statistical benefit.

1 For generations, public-health campaigns have conveyed a simple message: reduce mosquito populations and you reduce mosquito-borne disease. Brazil's expanding Wolbachia programme challenges that intuition. Rather than attempting to exterminate every disease-carrying insect, researchers are deliberately introducing mosquitoes whose biology makes them less effective at transmitting viruses.

2 A large-scale production facility inaugurated in Curitiba in July 2025 represents a significant expansion of that strategy. It breeds Aedes aegypti mosquitoes carrying Wolbachia, a naturally occurring bacterium that can interfere with the transmission of dengue, Zika and chikungunya. Released insects reproduce with wild populations, allowing the bacterium to spread across successive generations.

3 The innovation lies in population replacement rather than straightforward population reduction. Conventional measures such as insecticides may bring immediate benefits but generally require repeated application. The Wolbachia approach seeks a more durable change in a population's capacity to transmit infection. It is biological control, not a claim that the insects themselves have become entirely benign.

4 Scaling that idea up is a considerable undertaking. Breeding the mosquitoes requires careful control of temperature, food and quality. Enough of them must then be released in the right places for Wolbachia to spread through the local population. A facility of this size is an admission that the method only works as a sustained operation, not as a one-off intervention.

5 Field results in Brazil and elsewhere have offered promising evidence, though outcomes vary. Local ecology, release strategies and the extent to which Wolbachia becomes established all influence effectiveness. Even successful programmes must coexist with surveillance, treatment, sanitation and the removal of breeding sites. No responsible scientist would present a single intervention as a silver bullet. Nor is the comparison with insecticide entirely one-sided, since spraying at least offers visible, immediate reassurance, whereas population replacement asks the public to wait for a benefit it cannot see.

6 There is also a question of consent to which there is no tidy answer. An individual may decline a medical treatment, but nobody can opt out of the mosquitoes in their own street. Interventions that operate on an environment rather than a patient therefore rest on collective agreement, which is harder to secure and easier to lose than the individual kind.

7 Public confidence may prove almost as important as laboratory performance. People understandably associate mosquito releases with increased danger, and officials must explain both the mechanism and its limitations without overstating the evidence. That requires transparency about monitoring, genuine community consultation and candour about the continued possibility of bites.

8 It is worth noting how unusual such candour is in public health communication. Campaigns normally promise protection; this one asks residents to accept more of something they dislike in exchange for a benefit that is statistical, gradual and largely invisible. Trust, once lost over a programme of that kind, would be exceptionally difficult to rebuild.

9 The larger lesson is that the relationship between humans and disease vectors is more complicated than a battle against insects. By altering a mosquito's ability to transmit infection rather than trying to wipe the species out, Brazil is testing whether an apparently counter-intuitive intervention can deliver a practical public-health benefit at scale.

Sources: Paraná State Health Department. Picture: AI illustration.

4 True, false or not given

Circle **T** (true), **F** (false) or **NG** (the article does not say).

1. The writer implies that insecticide has one advantage over the Wolbachia approach. T F NG
2. The writer suggests that the Wolbachia approach removes the need for other disease-control measures. T F NG
3. Residents were consulted before the Curitiba facility was built. T F NG
4. According to the writer, consent works differently for a medical treatment than for a mosquito release. T F NG
5. The writer treats the size of the Curitiba plant as a sign that a single release would be enough. T F NG

5 Vocabulary

Complete the sentences with words from the box. Two words are not needed.

benign **considerable** **convey** **counter-intuitive** **decline** **durable** **exterminate** **surveillance**

1. Most lumps are _____ , but a doctor should still examine every one.
2. Rather than _____ the species, the researchers want people to learn to live alongside it.
3. Patients are entitled to _____ a treatment they do not want.
4. A _____ solution still works years after it was installed, unlike a stopgap.
5. Hospitals rely on _____ to detect new cases of a disease before it spreads.
6. Economists often find that the correct policy is _____ , which is why voters resist it.

6 Word forms

Use the word in brackets to make a word that fits the gap.

1. The _____ of the intervention depends on how widely Wolbachia spreads. (EFFECTIVE)
2. Officials were criticised for their _____ to explain the risks. (WILLING)
3. The trial produced _____ results, so scientists asked for further research. (CONCLUDE)
4. Presenting the figures without context would be _____ . (MISLEAD)
5. The agency promised greater _____ to the communities it affects. (ACCOUNT)

7 Language focus: collocations

Complete the sentences with words from the box. Two words are not needed. Some collocations are almost fixed chunks. You strike a balance, shed light on something and hold a vested interest. Learn the whole chunk.

bear	erode	met	pose	shed	strike	vested

1. The agency must _____ a balance between reassuring residents and admitting the risks.
2. Careless messaging could _____ public trust for good.
3. The announcement was _____ with scepticism.
4. A pilot study can _____ light on whether a method works in a particular climate.
5. Companies with a _____ interest in the outcome should declare it.

SPEAK

8 Talk about it

Discuss in pairs or small groups. Give reasons for your answers.

1. What would residents need to know before welcoming these mosquitoes?
2. Would a successful trial elsewhere persuade you to support a local project?
3. How could scientists earn trust before asking people to accept a change?

9 Role-play: a meeting about the mosquito release

Work in pairs. Read your card, then have the conversation. Swap roles and do it again.

Student A · the health officer

Mosquitoes carrying Wolbachia will soon be released in a neighbourhood. Explain the plan to a resident. Answer at least two questions honestly, including the fact that the mosquitoes can still bite.

Student B · the resident

You live in the neighbourhood and you're worried about more mosquitoes near your home. Ask questions and say what would make you feel safer. Decide at the end if you support the plan.

Useful phrases

I'm worried about the mosquitoes near my house.

I'd like to understand how it works.

Let me explain what we're doing.

They can still bite, but they don't pass on dengue as easily.

What if the plan doesn't work?

I'm still not convinced, but I'll come to the meeting.

Afterwards, tell the class: did the resident support the plan, and what changed their mind?

ANSWER KEY

2 Key words

1 G · 2 B · 3 A · 4 F · 5 E · 6 C · 7 H · 8 D

4 True, false or not given

1 T · 2 F · 3 NG · 4 T · 5 F

5 Vocabulary

1 benign · 2 exterminate · 3 decline · 4 durable · 5 surveillance · 6 counter-intuitive

6 Word forms

1 effectiveness · 2 unwillingness · 3 inconclusive · 4 misleading · 5 accountability

7 Language focus

1 strike · 2 erode · 3 met · 4 shed · 5 vested

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