



ANNUAL REPORT 2022

# 2022 | Our Launch to Global Impact

2022 was a remarkable year for Oxitec driven by our remarkable people and a global community of partners, experts, and supporters. I couldn't be more proud of our team.

The big news: we carried out the national commercial launch of our Friendly<sup>™</sup> *Aedes aegypti* product in Brazil, a world's first.

This represents 20 years of work by thousands of people, governments, universities, non-profits, foundations, and communities around the world, all of whom contributed to building a new generation of technologies to combat the growing threat of vector-borne diseases and threats to food security.

2022 also represents Oxitec's transformation into an organization capable of having impact at scale globally.

From scaled-up manufacturing to large-scale distribution systems, product development to branding and marketing, we've demonstrated excellence and a new model for how biotechnology companies build trust, build products, and deliver impact.

And time is short – the pest threat to human health and food sustainability is growing. We're on it.

Grey Frandsen, CEO



2022 represented our most important year yet – we're now having impact at scale. And we're just getting started.





## **BRAZIL: National Launch of Friendly™ Aedes**

**Following a successful targeted launch in São Paulo state in 2021-2022, the justadd-water Friendly product has launched nationally**. This follows deep product validation, including multiple pilots demonstrating 95% and higher suppression of the dengue-spreading *Aedes aegypti* mosquito in densely populated urban communities in Brazil.

To meet growing demand from households, businesses and governments across Brazil, **we're partnering with selected regional and national pest control operators**, leveraging their sales, distribution and service capabilities, to deploy nationally at scale.

Our new product has earned the trust of some of Brazil's iconic brands, including:

<b>GLOBO</b> , the largest media group in Latin America	<b>Socican</b> <b>SOCICAM,</b> operator of airports, ports and bus terminals across Brazil	<b>BOTAFOGO</b> , one of Brazil's most celebrated, decorated top-tier soccer teams.
Baker Hughes BAKER HUGHES, one of the world's largest energy services companies	TechnipFMC TECHNIPFMC, one of the world's leading design and engineering firms	SIEMENS COCIGY SIEMENS ENERGY, a global leader in energy supply



We've delivered a world's first – a beautiful, safe and simple-to-use biotech mosquito product that empowers everyone to fight the dengue mosquito. Remarkable! Natalia Ferreira - Brazil Director



## MANUFACTURING FOR COMMERCIAL SCALE-UP Oxitec's New Chrysalis Facility

# **BRAZIL: Chrysalis Launches**

#### **Oxitec's New Manufacturing Facility**

New production hub in Campinas, Brazil, is powering national roll-out.

- GLP-like manufacturing
- Robust Quality Management
- Now meeting growing Friendly™ Aedes aegypti demand and will supply Friendly™ fall armyworm to farms



NORDIKA PHARMACEUTICAL ENGINEERING





We're rapidly scaling to meet growing demand for Friendly™ Aedes from household, business and government customers.

Daniel Wanderley – Director of Commercial Operations

## **BRAZIL: Scale-Up Pilots on Corn**

Friendly<sup>™</sup> fall armyworm is currently undergoing pilots on thousands of acres of commercial corn in key production regions across Brazil.

- Full commercial biosafety approval issued by Brazilian government regulators in 2021
- Offers targeted, biological fall armyworm suppression, and also protects durability of other insecticidal tools
- Scalable, cost-effective manufacturing

Farm-scale pilots in 2022 have enabled validation of the distribution, deployment and performance of the Friendly™ fall armyworm solution in open-field farm settings.

"Our results provide promise for a **new and valuable** addition to future integrated pest management programs for fall armyworm, and for other pests in which insecticide resistance has become a significant challenge for farmers." Reavey et al. 2022 BMC Biotechnology. <u>Link</u>



We're building the world's most scalable and sustainable biological solution for this devastating global crop pest.

Kelly Matzen - Chief Technology Officer

# Friendly<sup>™</sup> Fall Armyworm

## **DJIBOUTI: Fighting Urban Malaria**

We're launching our malaria fight in the Horn of Africa, where the invasive *Anopheles stephensi* is causing urban malaria outbreaks.



- Oxitec's UK team developing Friendly™ Anopheles stephensi and scalable manufacturing
- New Djibouti team working in Djiboutian communities with trusted government and NGO partners
- New research facility established

## A parallel hub will soon be established in Central America to combat the regional malaria vector, *Anopheles albimanus*.

"Urgent action is needed to prevent urban malaria epidemics from emerging and causing a public health disaster."



Takken & Lindsay. 2019 Emerging Infectious Diseases. Link



- MARINE

We're racing against time, as this invasive malaria threat spreads and establishes in cities across Africa.

Neil Morrison - Chief Strategy Officer

# Friendly<sup>™</sup> Anopheles

## **USA: Pilot Season 2 Completed**

Friendly<sup>™</sup> Aedes aegypti has now undergone two successful field pilot seasons in the Florida Keys, demonstrating effectiveness and safety and strong public support.

- Approvals issued by US Environmental Protection Agency
- Strong Friendly male performance and just-add-water devices optimized



Strong and lasting partnership with Florida Keys Mosquito Control District

CDC Study, 2017

More than 70% of all US counties are suitable for the rapidly spreading invasive Aedes aegypti

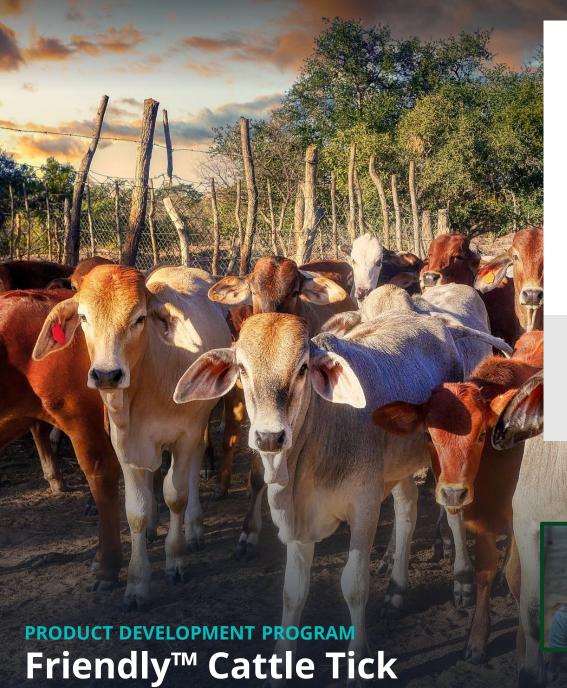




We're working in partnership with Florida communities and mosquito control authorities to validate product performance. And it's going exceptionally well!

Kevin Gorman – Chief Development Officer

# Friendly<sup>™</sup> Aedes aegypti



## **UK: Cattle Tick Program On Track**

Oxitec is directing the Friendly<sup>™</sup> platform at the world's most damaging: the Asian blue tick, or *Rhipicephalus microplus*.

Early development research:

- New rearing and genetic development methods
- Assess the biology of the tick on cattle and how a Friendly<sup>™</sup> tick will best be applied to protect threatened herds across the world



Of all tick pests, the **Asian blue tick has the greatest economic impact around the world**, causing **billions of dollars in damage and losses**. Oxitec's solution has the potential to control it in an environmentally sustainable way.

> Working with our first noninsect, we're excited about the promise of the Friendly™ platform to deliver effective and sustainable management of this devastating pest.

Kelly Matzen – Chief Technology Officer

# In 2022, Oxitec Continued Its Commitment to **Public Engagement**, **Information Sharing**, and **Trust-Building Globally**



### EXPOPRAG, São Paulo, Brazil

At LATAM's largest pest control industry conference, we created a stir: we made our industry debut and announced our national launch, the first time a disruptive biotechnology pest control tool is available to everyone.



#### PAMCA, Kigali, Rwanda

We celebrated our launch in Africa at the **Pan-African Mosquito Control Association**'s annual meeting, and where we introduced the Friendly<sup>™</sup> platform as a **disruptive for the control of mosquitoes that transmit malaria.** 



### **ASTMH**, Seattle, USA

Oxitec's symposium at the annual meeting of the American Society of Tropical Medicine and Hygiene attracted global experts, government policymakers and industry, seeking to hear more about Friendly<sup>™</sup> solutions.



# OUR PEOPLE Critical Mission, Amazing Team

We have a world-class team of experts in their fields dedicated to delivering global impact with our technology, which means we do our work with passion, urgency, and a strong set of values.

# AAAA WOMEN IN LEADERSHIP

54% of Oxitec's managers are female



### 4 CONTINENTS

Oxitec now has hubs in the US, LATAM, Europe & Africa



#### 15+ NATIONALITIES

represented, with 30+ PhDs



100+

new Oxitec team members welcomed



## **OUR VALUES**

"We have created a strong set of values and principles that guide how we work internally and how we engage with our partners, shareholders, collaborators, and most importantly, those we serve."

#### **Grey Frandsen - CEO**

#### TRUST

We seek to earn it, grow it, and sustain it inside Oxitec and with our employees, partners, investors, stakeholders, customers and the public.

#### **INCLUSIVENESS**

We value and pursue diversity within our team and with those we work. We are working to serve as an agent for social justice.

#### **AUTHENTICITY**

We are made up of amazing and diverse group of humans who represent us in all of their uniqueness, together.

#### **INTEGRITY**

Always. There is no exception to full integrity and honesty in all we do and stand for.

#### TRANSPARENCY

We strive to be open and accessible to everyone, inside and out.

#### HUMILITY

We lift up those who lift up others, and we seek to serve. We are humble in the face of the magnitude of the global challenges we're trying to solve, and we see ourselves as part of a global community working together to solve them.

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info@oxitec.com | careers@oxitec.com

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oxitec

Líder no desenvolvimento de os biológicas eficazes, seguras e susteveis para controle de pragas que trandestroem plantações e prej