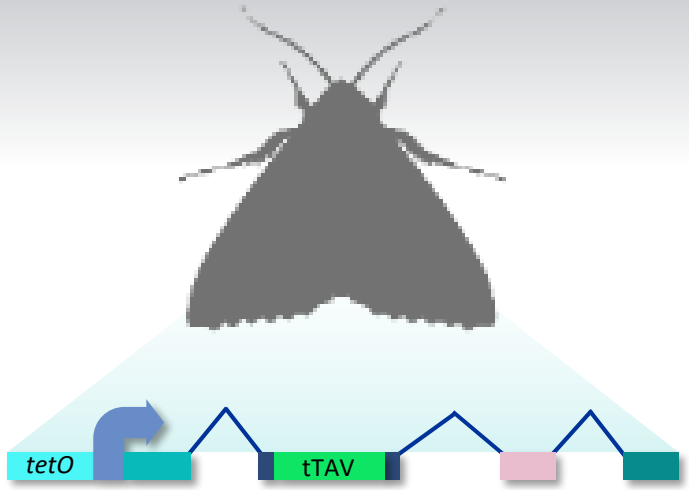
Friendly™ Fall Armyworm – Regulatory Pathway

Oxitec's Friendly™ Technology – Safe, Biological, Effective

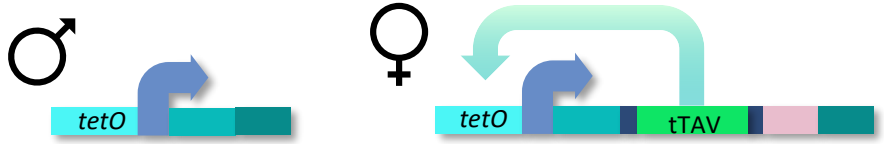


Friendly™ insects carry introduced genes that deliver unparalleled vector suppression

Male-Only Production and Population Suppression

In absence of the chemical antidote:

- **Male carriers survive as normal**
- **Female carriers cannot survive to adulthood**



Self-Limiting gene: female-specific, tetracycline-repressible expression of the tTAV effector gene

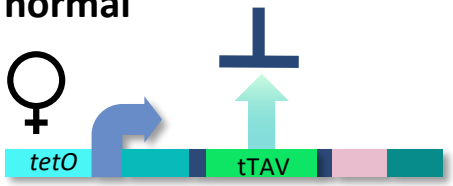
tTAV spliced out of male transcript

tTAV expressed, binds to tetO enhancer, leading to lethal positive feedback loop

Colony Production

In presence of the chemical antidote:

- **Female carriers survive as normal**



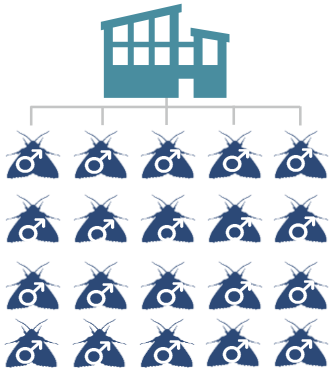
Tetracycline binds to tTAV, switching off female lethality

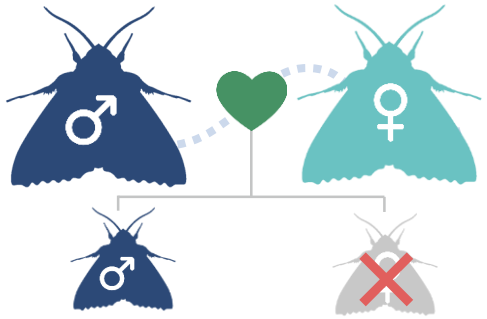
Friendly™ Genes | Scalable Production | Biological Mode-of-Action | Positive Impact for Communities & Agriculture

Insertion of two Friendly™ genes

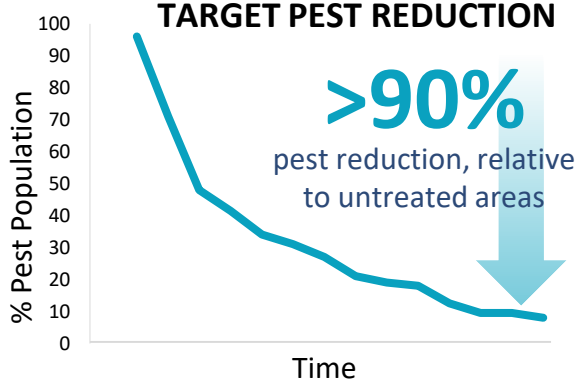
SELF-LIMITING GENE

MARKER GENE





Female offspring do not survive



TARGET PEST REDUCTION

>90%

pest reduction, relative to untreated areas

LONG-TERM PROTECTION OF BIOTECH CROP VALUE

50+

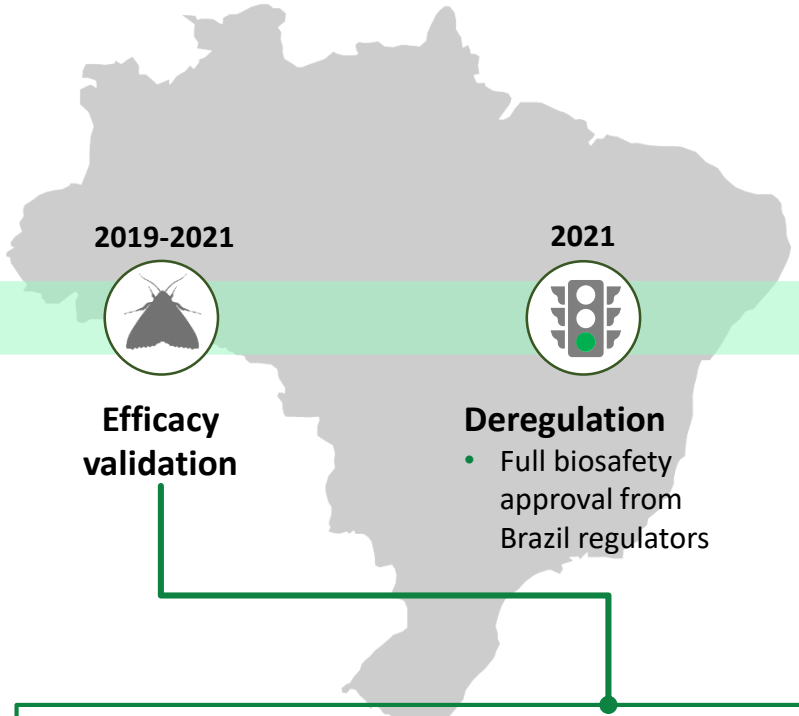
generations of protection of Bt crops

Friendly™ Fall Armyworm Nearing Launch for Biotech Corn Protection

BRAZIL

>$1 billion
Fall Armyworm losses and management costs

>30 million
Acres of Bt biotech corn under threat



2019-2021

Efficacy validation

- Strong field performance
- Suppression and resistance management in contained studies
- Mathematical modelling shows Friendly™ Fall Armyworm can extend biotech corn efficacy by decades

2021

Deregulation

- Full biosafety approval from Brazil regulators

2021-23

Farm-scale pilots

- Deployment over 1000s of acres of commercial corn

Preparation for commercial scale

OXITEC'S FRIENDLY™ FAW PRODUCT:

PROTECTS BIOTECH CORN
Extends durability of varieties by years

EFFECTIVE
1 device covers up to hundreds of acres

SIMPLE
Easy to deploy with no toxic chemicals or specialist equipment

We are preparing for the next phase with Friendly™ Fall Armyworm in Brazil to:

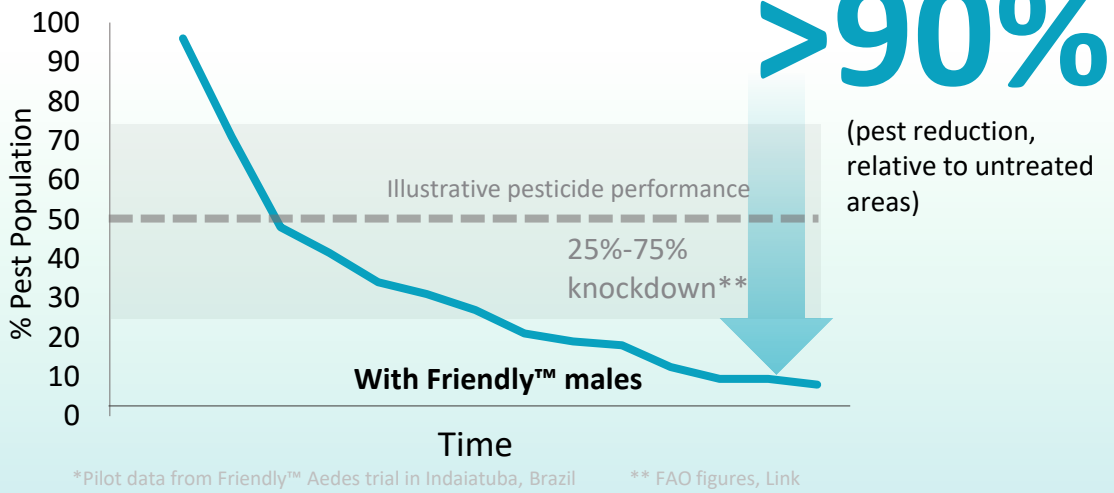
- **Protect biotech corn traits;**
- **Provide growers with safe, effective crop protection;**
- **Improve sustainability of Brazilian and global corn production.**

Powerful Dual Performance Benefits of Friendly™ Technology

Friendly™ products deliver two modes of action – rapid suppression of target pest populations, and/or gene introgression into target wild pest populations for adding or preserving value in other major crop protection products, like Bt crops.

Highly Effective Suppression Outperforms Pesticides

TARGET PEST REDUCTION



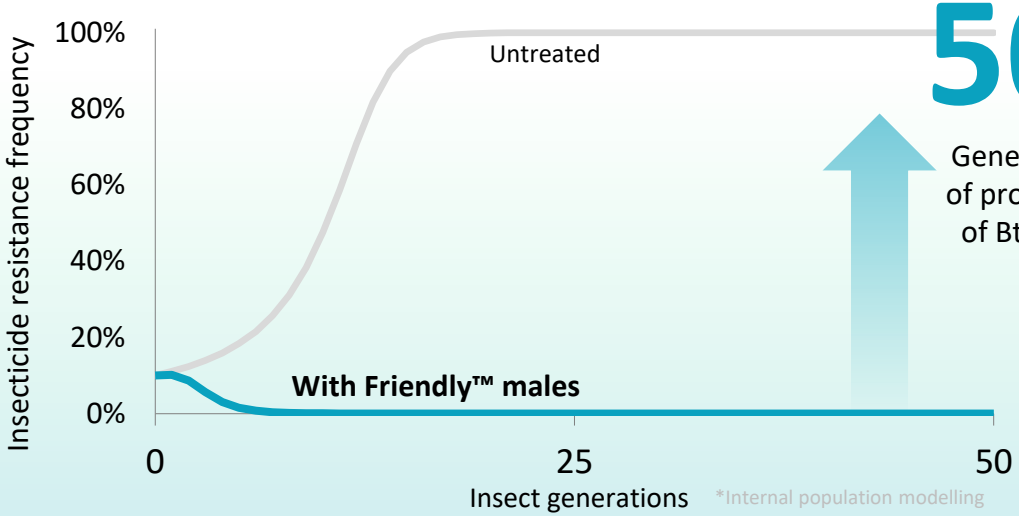
>90%

(pest reduction, relative to untreated areas)

*Pilot data from Friendly™ Aedes trial in Indaiatuba, Brazil ** FAO figures, Link

Dilution of Insecticide Resistance Offers Protection of Bt Crops

PROTECTION OF BT CROP VALUE OVER TIME



50+

Generations of protection of Bt crops

*Internal population modelling

Performance Scientifically Proven

- 100+ peer-reviewed publications
- Globally respected leader in arthropod biotechnology

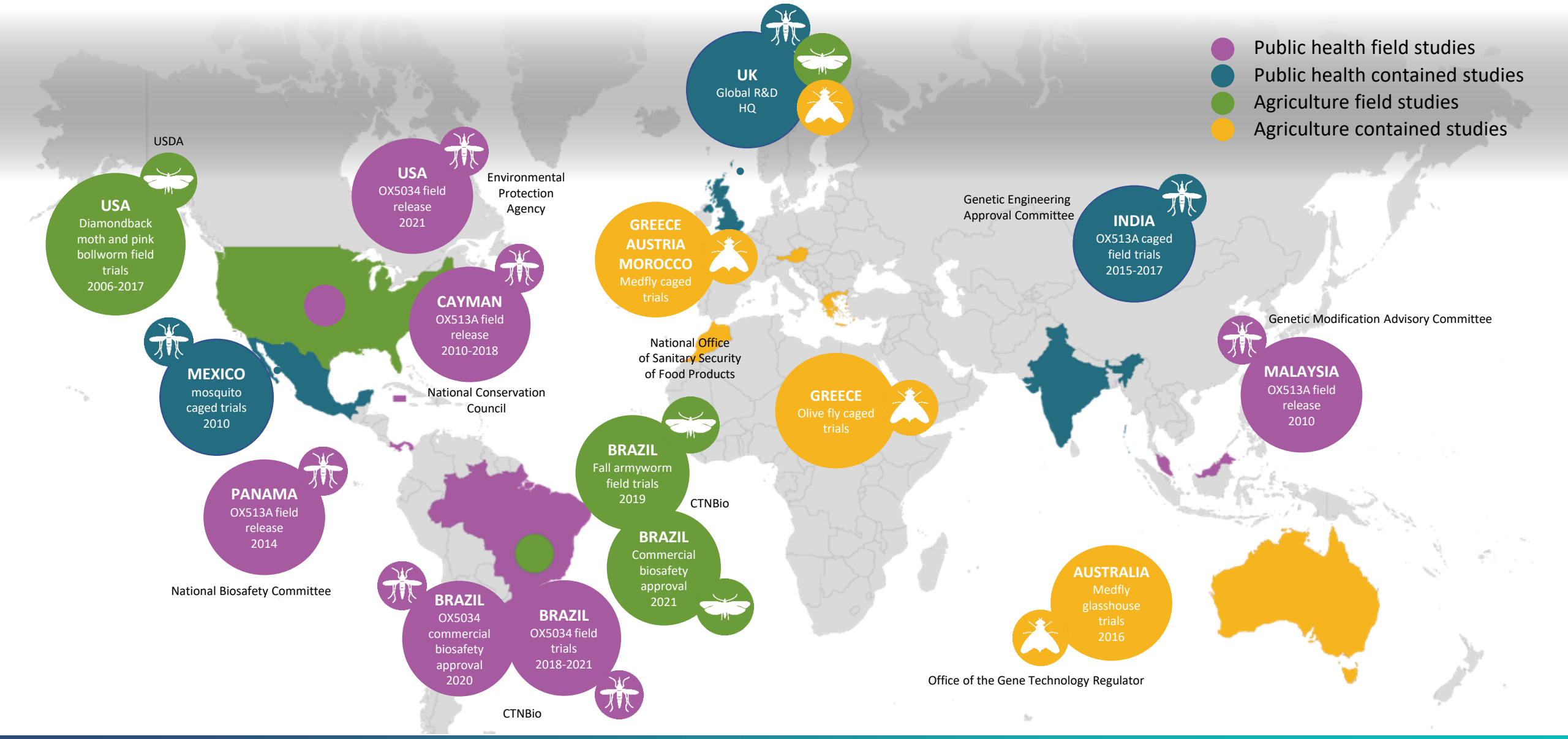
Demonstrated Real-World Effectiveness

- Best-in-class vector suppression in city-wide and farm-scale deployments
- Repeated success in field pilot demonstrations in multiple countries

Multiple Biosafety Approvals

- Deployments and pilot demonstrations conducted under approvals in the Americas, Africa, Europe, Asia and Australia

10+ Years of Successful Development and Strong Regulatory Track Record



Friendly™ Fall Armyworm Regulatory Pathway

List of some of the studies presented according to Normative Resolution 24/2020 for Commercial Approval

- ✓ Detailed description of genetic modification
- ✓ Complete molecular characterization of the organism
- ✓ Inheritance pattern of the genetic modification
- ✓ Mating competitiveness data (GMO x WT)
- ✓ Dispersal and longevity of the GMO
- ✓ Lack of toxicity and allergenicity of newly expressed proteins
- ✓ Sensitivity of the newly expressed proteins to environmental proteases
- ✓ Lack of toxicity towards non-target and susceptible organisms
- ✓ Dispersal mode of the GMO and factors affecting it
- ✓ Secondary effects on predators, competitors, parasites of the species
- ✓ Metabolites produced that might cause adverse effects on the food chain (acute toxicity in rats; feeding studies with predator beetles, birds, parasitoid wasps)
- ✓ Insecticide susceptibility

Approved by the Brazilian Authority in Biosafety (CTNBio) in March/2021

"Thus, having met the conditions described in the process and in this technical opinion, **this activity is not potentially causing significant degradation of the environment or human and animal health**. Therefore, and in view of the information mentioned above, the National Technical Commission on Biosafety - **CTNBio decided to grant the Commercial release.**"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Thank you