

**PRESS
RELEASE****Chocolate industry breathes a sigh of relief in view of new technology designed to detect destructive cocoa virus**

A new, simple rapid test detects the virus in cocoa trees even before they show symptoms, helping to protect cocoa yields and farmers' income

Lausanne (VD), Chicago – Swiss agrifood testing company SwissDeCode, in collaboration with Mars Wrigley, has created an on-site test that is designed to detect Cocoa Swollen Shoot Disease (CSSD) in asymptomatic trees in less than 60 minutes.

For decades, the virus has been infecting cocoa trees creating an acute problem for the cocoa and chocolate industry, as it can reduce cocoa yield by up to 70%. Until now, no efficient methods to quickly detect the presence of the virus in field in asymptomatic plants had been found.

An exciting new method, adapted to the needs of the cocoa industry

Built on SwissDeCode's DNAFoil proprietary technology, and incorporating underlying research from Mars Wrigley, the new solution is an easy-to-perform testing kit that would enable field personnel to quickly test cocoa trees, using their leaves as samples. The test would enable farmers to detect infected trees, even before they show any symptoms, and to take immediate action to prevent the spread of the virus to healthy trees, thus helping to safeguard their current and future income.

The new rapid test provides an opportunity to benefit not only cocoa farms but also cocoa tree nurseries, as it enables monitoring of tree health on a regular basis, and the release of planting materials only when they are substantially free of the virus. Finally, replanting infected areas and regenerating old farms can be conducted with greater peace of mind, helping farmers increase both yields and income while preventing deforestation.

Collaboration with industry players is key

For the development of the new solution, SwissDeCode has partnered with Mars Wrigley, who, for a long time, has been advancing crop science to improve cocoa production across the globe. This successful collaboration has allowed SwissDeCode to understand the specific issues and requirements of end users, from cocoa farmers to trading organizations. Once field validations have been successfully completed, the kit will be ready for largescale use.

“Seeing that the result of our work helps to solve an issue that is impacting 14 million families makes us immensely proud. We are also making cocoa farming more sustainable, by preventing large-scale deforestation caused by recurring infections.”

Brij Sahi, CEO & Co-Founder, SwissDeCode

“We have been looking for reliable preventive solutions against CSSD since the 1940s, as each year cocoa farms are being increasingly affected by this virus. Joining forces with SwissDeCode, we have finally found a rapid and reliable on-site diagnostic!”

Jean-Philippe Marelli, Senior Director Integrated Pest Management, Mars Wrigley

What is Cocoa Swollen Shoot Disease?

The Cocoa Swollen Shoot Disease is caused by plant viruses and transmitted by mealybugs from infected to healthy cocoa trees. The region of West Africa is particularly affected, especially Ghana and Ivory Coast, where over 780,000 hectares of cocoa trees are believed to be infected.

Cocoa trees affected by CSSD can be asymptomatic for up to 2 years, but then they start to show symptoms such as red leaf veins or swollen stems and roots, and typically die within 3-4 years of symptom development. Sick trees cannot be cured, and the disease can only be managed by preventing further spread to healthy trees, for example by planting barrier crops or cutting out infected trees entirely.

These measures can have a great impact on the sustainability of cacao production, since they are responsible for the loss of thousands of hectares every year, and millions of dollars are spent in replanting cocoa trees, which is considered the best solution to stop the spread of the disease. This new technology enables early detection, which allows for targeted intervention and helps decrease the need to cut down adult trees to mitigate the spread of the disease.

Organizations involved in the production, trading and quality control of cacao and cocoa trees can benefit from the new test, and can learn more here: <https://swissdecode.com/dna-foil/cssd>

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About SWISSDECODE

SwissDeCode is at the forefront of food quality, authentication and compliance, offering a variety of DNA detection solutions to help boost confidence in the entire food supply chain.

With recent investments led by [VisVires New Protein \(VVPN\)](#) and [EIT Food](#), SwissDeCode is expanding its range of solutions to cater for the needs of more parts of the food industry, including the cocoa industry, with whom the team has been working closely.

For more information about SwissDeCode, www.swissdecode.com. Join us on [Facebook](#), [Twitter](#) and [LinkedIn](#).

Joana Gomes, Marketing and Communications Manager

E-mail: press@swissdecode.com

About Mars, Incorporated

For more than a century, Mars, Incorporated has been driven by the belief that the world we want tomorrow starts with how we do business today. This idea is at the center of who we have always been as a global, family-owned business. Today, Mars is transforming, innovating and evolving in ways that affirm our commitment to making a positive impact on the world around us.

Across our diverse and expanding portfolio of confectionery, food, and petcare products and services, we employ 133,000 dedicated Associates who are all moving in the same direction: forward. With \$40 billion in annual sales, we produce some of the world's best-loved brands including DOVE®, EXTRA®, M&M's®, MILKY WAY®, SNICKERS®, TWIX®, ORBIT®, PEDIGREE®, ROYAL CANIN®, SKITTLES®, BEN'S ORIGINAL™, WHISKAS®, COCOAVIA®, and 5™; and take care of half of the world's pets through our pet health services AniCura, Banfield Pet Hospitals™, BluePearl®, Linnaeus, Pet Partners™, and VCA™.

We know we can only be truly successful if our partners and the communities in which we operate prosper as well. The Mars Five Principles – Quality, Responsibility, Mutuality, Efficiency and Freedom – inspire our Associates to take action every day to help create a world tomorrow in which the planet, its people and pets can thrive. The [Mars Compass](#), inspired by the Economics of Mutuality, is used to measure the company's progress in service of its purpose; The world we want tomorrow starts with how we do business today.

For more information about Mars, www.mars.com. Join us on [Facebook](#), [Twitter](#), [Instagram](#), [LinkedIn](#) and [YouTube](#).

Prita Wadhvani, Cocoa Communications Director

E-mail: mars.cocoa@effem.com