



PRESS RELEASE

Recent NVWA findings reinforce concerns about the risks associated with ToBRFV cross-protection

October 2026 – In recent years, the tomato industry has faced significant challenges from Tomato brown rugose fruit virus (ToBRFV). At the same time, discussions have emerged around the use of so-called “vaccination” or cross-protection approaches as a potential solution.

A recently published article by the Dutch National Plant Protection Organization (NVWA) has brought renewed attention to this topic. The publication emphasizes the importance of maintaining low virus pressure in greenhouse production systems and notes that practices associated with cross-protection may increase virus pressure. According to the NVWA, higher virus pressure can create conditions that accelerate virus evolution, potentially putting the long-term effectiveness of genetic resistance at risk.

Experts warn the tomato industry regarding the risks posed by cross-protection

Research into cross-protection is based on the use of mild virus strains intended to protect plants against more aggressive variants. While this approach has been explored for other viruses, ToBRFV presents a fundamentally different risk profile. Scientists and researchers highlight that this virus is highly infectious and prone to mutation, making it extremely difficult to control or stabilize so-called “mild” strains.

The recent NVWA publication also describes genetic changes observed in ToBRFV populations exposed to high virus pressure. While further research is needed to fully understand the biological significance of these findings, the observations reinforce broader scientific concerns that increasing virus populations within production systems may create additional opportunities for virus adaptation. These findings underline the importance of strategies focused on minimizing virus pressure and limiting the spread of the virus.

Concerns identified by experts

As a result, there is no reliable evidence demonstrating that ToBRFV cross-protection provides consistent or safe benefits under commercial conditions. On the contrary, studies and expert observations indicate that such approaches may:

- Lead to the emergence of new, more aggressive virus variants;
- Increase the risk of unintended spread to neighbouring crops;
- Potentially undermine the effectiveness of existing resistance in commercial varieties.

The use of ToBRFV as a crop protection agent is not permitted in the European Union.

Not all viruses behave the same

It is essential to recognize that not all viruses behave the same. Comparisons with other viruses, such as pepino mosaic virus (PepMV), can be misleading. Unlike these cases, ToBRFV is considered more aggressive and less predictable, making cross-protection strategies significantly more complex and risk-prone.

Proven approaches remain the best protection

At the same time, the industry has made strong progress in managing ToBRFV through proven and science-based approaches. Resistant varieties, combined with strict hygiene measures, are today the most effective way to reduce virus pressure and limit crop impact. Hygiene protects the resistance. Resistance protects the crop.

However, resistance is not immunity. Like all plant viruses, ToBRFV continues to evolve. Preserving the effectiveness of resistance therefore requires responsible and consistent practices across the entire industry.

A shared responsibility

In this context, the use of unproven cross-protection approaches introduces avoidable risks that could impact not only individual growers, but the resilience of tomato production more broadly. At Enza Zaden, we therefore strongly encourage growers and industry stakeholders to rely on validated solutions and to avoid the use of unapproved ToBRFV cross-protection methods.

Protecting crops today and safeguarding resistance for the future depends on informed decisions, scientific rigor and collective responsibility.

For further information, readers are encouraged to consult the NVWA publication:

[“What does the genetic family tree of ToBRFV tell tomato growers?”](#)

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About Enza Zaden

Enza Zaden develops new vegetable varieties that are grown, sold and eaten all over the world. Worldwide, the family business has more than 3.000 employees with 45 branches in 25 countries. Enza Zaden has been committed for over 85 years to developing high-quality vegetable varieties, in which a high level of knowledge and advanced technology play an essential role. The company's goal is to provide people, anywhere in the world, access to healthy and varied vegetables. www.enzazaden.com