



13 April 2021

ToBRFV: first trial results confirm high resistance level

PRESS RELEASE

In 2020 Enza Zaden announced the discovery of the tomato brown rugose fruit virus (ToBRFV) High Resistance gene, a complete solution for ToBRFV. Since the announcement we've worked hard with resistant trials material achieving excellent results. "We see no symptoms at all in the plants, while the disease pressure is very high," says Oscar Lara, Senior Tomato Product Specialist, about the first trials in Mexico.

No symptoms at all

At the Enza Zaden trial location in Mexico, the high resistance (HR) varieties are placed next to susceptible ones. There you can clearly see the difference. The susceptible tomato varieties show different foliage disorders such as a yellow mosaic pattern. The affected plants also stay behind in growth. "You can clearly see how well our high resistant varieties withstand ToBRFV," says Oscar Lara. "In comparison to the plants of susceptible varieties, the resistant ones look very healthy with a dark green colour, show no symptoms at all and have a good growth. All our trialed HR tomato varieties do not show any symptoms at all."

Exciting news

Enza Zaden is running parallel tests in different countries with varieties with high resistance to ToBRFV. "Our trials in Europe, North America and the Middle East show that we have qualitatively good tomato cultivars with a confirmed high resistance level," says Kees Könst, Crop research Director. "This is exciting news for all parties involved in the tomato growing industry. We know there is a lot at stake for our customers, so we continue to work hard to make HR varieties available for the market. We expect to have these ready in the coming years," says Könst.

High performing and high resistance

Enza Zaden has a long history in breeding tomatoes. "We have an extended range of tomato varieties, from large beef to tasty vine tomatoes (truss tomatoes) and from baby plum tomatoes to pink varieties for the Asian market. This basis of high performing varieties combined with the gene we discovered, will enable us to deliver the high performing varieties with a high resistance to ToBRFV."

Why is a high resistance level so critical?

"With an intermediate resistance (IR) level, the virus propagation is delayed but ToBRFV can still enter tomato plants – plants that may eventually show symptoms," says Könst. "With a high resistance level, plants and fruits do not host the virus at all. This means they won't be a source for spreading the virus and that the detection test will come back negative. Growing a variety with high resistance can be the difference between making profit or losing the crop."

Stay updated

Do you want to be the first to know about further developments regarding the high resistance to ToBRFV? Sign up for our newsletter.



About Enza Zaden

Enza Zaden is a global leader in vegetable breeding and seed production, with operations in 25 countries, and headquarters in The Netherlands. The company is a well-known leader in tomato breeding and offers top programs in more than 30 other vegetables and culinary herbs. Vitalis Organic Seeds is the certified organic seed division of Enza Zaden.

For more information, please email us at communications@enzazaden.nl or visit our website www.enzazaden.com/hr-tobrfv