

**Notification of the presence of a harmful organism (2197) – closing note**

1 General information	
1.1 Title	Closing note on an outbreak of Tomato brown rugose fruit virus (ToBRFV) in Germany (Brandenburg)
1.2 Executive summary	<p>In 2023, ToBRFV has been notified by a tomato grower who informed the plant protection service of Brandenburg which then took official samples. ToBRFV was confirmed in 2 lots of 1 variety so far which was grown in 2 greenhouses. The other tomato plants of the grower were tested too. Official eradication measures are taken.</p> <p><u>Update August 2023:</u> On 13<sup>th</sup> June 2023, intensive sampling and testing was carried out in the greenhouses. ToBRFV could be detected in 3 of the 4 greenhouses on the varieties Rebelski, Capparicia and Briosio. Official eradication measures have been implemented, especially hygiene measures. The plants and the substrate will be destroyed at the end of the harvest season at the latest.</p> <p><u>Update September 2023:</u> On 8<sup>th</sup> August 2023, the variety Delioso was sampled and tested positive for ToBRFV. In addition, plants of <i>Capsicum</i> sp. were tested positive. It concerns 6 plants which were grown for private use and were in direct contact to the infested tomato plants.</p> <p><u>Update July 2024:</u> In 2024, all tomato varieties were tested for ToBRFV from all greenhouses of the concerned 4 greenhouses. Only the variety Carmelino (420 plants) was found to be infested, all other varieties were tested negative. All grown varieties are intermediately to highly resistant against ToBRFV according to the breeders. 'Carmelino' is characterized as intermediate resistant by the breeder. It cannot be clarified if the source of the new infestation are insufficient hygiene measures, introduction with infested young plants or other sources. The young plants of the infested variety were delivered from another Member State who is being informed accordingly.</p>

	<p><b>Update January 2025:</b> Due to the finding of 420 infected plants of the variety Carmelino in the spring (update July 2024) further sampling and testing was carried out in the greenhouses in September/October 2024. There was no further infestation in the affected greenhouse, but 3360 plants of variety 'Amelioso' were found to be infested in another greenhouse (two varieties were negative). Further sampling was carried out. Overall, the demarcated area has been increased and official eradication measures were taken until the end of 2024.</p> <p>Since January 2025 ToBRFV is regulated as a Regulated Non-Quarantine Pest (RNQP) and therefore, no official eradication measures are applied any more.</p>
<b>2 Information concerning the single authority and responsible persons</b>	
2.1 Notification from	Julius Kühn-Institut (JKI), Institute for National and International Plant Health, Germany
<b>3 Location</b>	
3.1 Location	In Brandenburg
<b>4 Reason of the notification and the pest status</b>	
4.1 First finding in Germany or in the area	Confirmed appearance of the pest in part of the territory of Germany, in which it has been previously present but eradicated.
4.2 Pest status of the area where the harmful organism has been found present, after the official confirmation.	<b>Present: not widely distributed and under official control</b>
4.3 Pest status in Germany before the official confirmation of the presence, or suspected presence, of the harmful organism.	Present: under eradication
4.4 Pest status in Germany after the official confirmation of the presence of the harmful organism.	<b>Present: not widely distributed and under official control</b>
<b>5 Finding, sampling, testing and confirmation of the harmful organism</b>	
5.1 How the presence or appearance of the harmful organism was found.	Information submitted by professional operators, laboratories or other persons.

	<p>The tomato grower informed the plant protection service about symptoms and provided a picture. Afterwards, the plant protection service took samples.</p> <p><u>Update September 2023:</u> Further sampling is planned in the greenhouse where no infestation was found yet. The sampling is carried out to check the efficacy of the hygiene measures and to achieve an overview on the situation.</p> <p><u>Update July 2024:</u> A survey was carried out at the concerned location of the grower (4 greenhouses) because of the infestation in 2023.</p> <p><b><u>Update January 2025:</u> Further investigations were carried out in the greenhouses in September/October 2024. There was no further infestation in the affected greenhouse from spring 2024 (update July), but 3360 plants of variety Amelioso were found to be infested in another greenhouse (two varieties were negative)).</b></p>
5.2 Date of finding:	31-05-2023
5.3 Sampling for laboratory analysis.	<p>Date of sampling: 30-05-2023</p> <p><u>Update September 2023:</u> Sampling of the <i>Capsicum</i> plants was carried out on 8<sup>th</sup> August 2023.</p> <p><u>Update July 2024:</u> On 8<sup>th</sup> April 2024, samples were taken from all varieties grown in the season 2024 in all 4 greenhouses of this location. 200 leaf parts were taken from each variety and location.</p> <p><b><u>Update January 2025:</u> In September 2024, samples were taken again from varieties grown in the season 2024 in all 4 greenhouses of this location. 200 leaf parts were taken from each variety and location. Due to finding of infected plants of the variety Amelioso in another greenhouse intensive sampling was carried out in that greenhouse.</b></p>
5.4 Name and address of the Laboratory	<p>Landesamt für Ländliche Entwicklung, Landwirtschaft und Flurneuordnung (LELF)  Referat 43 Saatenanerkennung, Phytopathologie  Steinplatz 1  15806 Zossen  Germany</p>
5.5 Diagnostic method	<p>According to peer reviewed protocols PM 7/146  (2) - Tomato brown rugose fruit virus</p>
5.6 Date of official confirmation of the harmful organism's identity.	09-06-2023

6 Infested area, and the severity and source of the outbreak in that area	
6.1 Characteristics of the infested area and its vicinity.	Physically closed conditions: greenhouse Plant already planted, not to be reproduced or moved
6.2 Host plants in the infested area and its vicinity	<i>Solanum lycopersicum</i> , <i>Capsicum</i> sp.
6.3 Infested plant(s), plant product(s) and other object(s).	<p><i>Solanum lycopersicum</i> (<b>3832 pce</b>), <i>Capsicum</i> sp. (6 pce)</p> <p><u>Update July 2024:</u> <i>Solanum lycopersicum</i> 'Carmelino' (420 pce) and <i>Capsicum</i> plants for private consumption without commercial use, plants right next to the tomato plants.</p> <p><b><u>Update January 2025:</u> 3360 infected plants of the variety Amelioso were found in another greenhouse than the infected plants of the variety Caramelino.</b></p> <p><b>Due to the infestation in all of the greenhouses in the previous year, greenhouses and varieties were managed with separate tools and with separate transportation technology and with permanent staff in each case – the plants were externally in a healthy condition with no recognizable symptoms of ToBRFV infestation, yields were stable over the season according to the company.</b></p>
6.4 Severity of the outbreak:	<p>The infestation seems to spread within the greenhouses because of the insufficient hygiene measures before the identification of ToBRFV. Obviously the infestation spreads from a focus of infestation within the greenhouses despite the implementation of hygiene measures.</p> <p><u>Update July 2024:</u> The concerned greenhouse (1ha) was demarcated as infested area. Symptoms and damage are not visible or very light, respectively.</p> <p><b><u>Update January 2025:</u> The plants were in a healthy condition with no recognizable symptoms of ToBRFV infestation, yields were stable over the season according to the company. According to breeders/young plant producers, only resistant varieties were used in the 2024 cultivation year.</b></p>
6.5 Source of the outbreak	It is suspected that ToBRFV has been introduced with young plants from another Member State who will be informed. The consignment consisted of 2 lots of 1 variety.

7 Official phytosanitary measures	
7.1 Adoption of official phytosanitary measures.	<p>Official phytosanitary measures will be taken.</p> <p>Preliminary measures have been taken by the grower and the measures according to Art. 6 (3) b of the IR (EU) 2023/1032 are implemented as appropriate in the infested zone by the plant protection service. Hygiene measures are carried out. The plants and substrate will be destroyed at the end of the harvest season at the latest. No buffer zone was demarcated because of the closed conditions in the greenhouses.</p> <p><u>Update September 2023:</u> From 10 August 2023, the same measures are applied to all infested tomato varieties and <i>Capsicum</i>.</p> <p><u>Update July 2024:</u> The demarcated area was reduced from approximately 4 ha in 2023 to the current infestation and includes the concerned greenhouse of 1 ha without a buffer zone based on the survey results from 2024 and hygiene measures in 2023. The infested variety and the substrate are being destroyed at the end of the growing season 2024 at the latest. However, the grower got the advice to destroy the infested plants and the rows next to them as soon as possible.</p> <p><b><u>Update January 2025:</u> The second greenhouse was set up as a demarcated area in 2024:</b></p> <ul style="list-style-type: none"> <li>- <b>Disinfection measures restricted to the infested areas and transport technology</b></li> <li>- <b>Destruction of the plants (including fastening material) by 31.01.2025, combined with storage on company premises (no removal outside the company premises), storage and destruction of the nutrient substrate.</b></li> </ul> <p><b>From 2025 ToBRFV is regulated as a RNQP and therefore, no official eradication measures are applied any more.</b></p>
7.2 Date of adoption of the official phytosanitary measures.	01-06-2023
7.3 Identification of the area covered by the official phytosanitary measures.	<p><u>Update July 2024:</u> In 2024, the demarcated area (infested zone) was reduced from approximately 4 ha to 1 ha.</p> <p><b><u>Update January 2025:</u> The demarcated area was enhanced from July to December 2024. From 2025, ToBRFV is regulated as an RNQP and therefore a demarcated area will no longer be applied.</b></p>

7.4 Objective of the official phytosanitary measures.	Eradication
7.5 Measures affecting the movement of goods.	Measures do not affect import into or movement within the Union of goods.
7.6 Specific surveys.	Yes, further sampling and testing until the end of the growing season 2024.
8 <b>Pest risk analysis/assessment</b>	Pest risk assessment is not required.  <b>Since 2025, ToBRFV is not classified as quarantine pest anymore but is regulated as RNQP.</b>