

Pressemitteilung**Leibniz-Institut DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH**
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Forschungsergebnisse

Biologie, Ernährung / Gesundheit / Pflege, Meer / Klima, Umwelt / Ökologie
überregional**Cucumber, courgette and pumpkin under threat – first evidence of cucumber virus in Germany****Researchers from Braunschweig identified cucumber virus in Germany**

(Braunschweig, Germany, 27th January 2020): Plant virologist Dr. Wulf Menzel of the Leibniz-Institute DSMZ – German Collection of Microorganisms and Cell Cultures in Braunschweig, Germany, and his colleagues from Nuremberg and Freising identified the “cucumber virus” Cucurbit aphid-borne yellows virus (CABYV) in Germany for the first time. The scientists recently published their findings in the renowned journal New Disease Report. In the summer of 2019, a large number of Bavarian farmers reported an infection of their cucumbers plants with an unknown disease. In most holdings, the infection rate was 10-50 percent. In some cases up to 90 percent of plants were affected, the crop yield dropped by up to 50 percent. Serologic and molecular tests effectively verified an infection with CABYV.

Cucumber virus: Cucurbit aphid-borne yellows virus

The cucurbit aphid-borne yellows virus was discovered in 1988 in France; it infects cucurbits such as cucumber, courgette, melon or pumpkin. An infection leads to a lack of chlorophyll and leaf thickening and is associated with a potentially massive loss of harvest yields. The virus is transmitted by aphids and commonly found across the Mediterranean region.

Establishment of virus also expected in central Europe

The researchers assume that CABYV will also establish itself outside Mediterranean countries. “In addition, the virus has been spotted in Czech Republic, Slovakia and Poland”, states Dr. Wulf Menzel of the DSMZ. “As both the aphids that transmit the virus and the natural overwintering hosts such as various weeds are native to our country, it is possible to assume that the virus will threaten cucurbits in Germany and in other central European countries as well by next year.” For growers of cucumber and the like in greenhouse cultivation, the plant virologist therefore recommends taking effective preventive measures, such as preventing aphid infestations.

Original publication

Menzel W, Maeritz U, Seigner L, 2020. First report of Cucurbit aphid-borne yellows virus infecting cucurbits in Germany. New Disease Reports 41, 1. <http://dx.doi.org/10.5197/j.2044-0588.2020.041.001>

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About the Leibniz Institute DSMZ

The Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures is the world's most diverse collection of biological resources (bacteria, archaea, protists, yeasts, fungi, bacteriophages, plant viruses, genomic bacterial DNA as well as human and animal cell lines). Microorganisms and cell cultures are collected, investigated and archived at the DSMZ. As an institution of the Leibniz Association, the DSMZ with its extensive scientific services and biological resources has been a global partner for research, science and industry since 1969. The DSMZ is the first registered collection in Europe (Regulation (EU) No. 511/2014) and certified according to the quality standard ISO 9001:2015. As a patent depository, it offers the only possibility in Germany to deposit biological material in accordance with the requirements of the Budapest Treaty. In addition to scientific services, research is the second pillar of the DSMZ. The institute, located on the Science Campus Braunschweig-Süd, accommodates more than 72,500 cultures and biomaterials and has 198 employees. www.dsmz.de

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Leaves of a CABYV infected plant, showing symptoms of a lack of chlorophyll
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Dr. Wulf Menzel
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