

# Plant viruses detected in German chickpeas

*Plant viruses threaten the superfood in Germany*

BRAUNSCHWEIG, GERMANY, February 7, 2025 /EINPresswire.com/ -- A research team led by plant virus expert Dr. Björn Krenz from the Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures GmbH in Braunschweig, Germany has investigated chickpeas grown in Germany for plant virus infections. For the first time, researchers have confirmed that this superfood is infected with various plant viruses. Their findings were recently published in the renowned scientific Journal of Plant Diseases and Protection.



A healthy chickpea plant (a116, left) compared to an infected plant (a115, right)

## Plant viruses endanger chickpea cultivation

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*Dr. Björn Krenz*

The research team, consisting of experts from the Plant Virus Department at the Leibniz Institute DSMZ, the Julius Kühn Institute (JKI), and the Leibniz Centre for Agricultural Landscape Research (ZALF), conducted a two-year study of various chickpea fields in Saxony-Anhalt and Brandenburg. They discovered, for the first time in Germany, the Pea necrotic yellow dwarf virus (PNYDV) in chickpeas—a virus already known to infect other legumes such as peas, where it can cause significant yield losses. Infected plants exhibited symptoms such as leaf yellowing and stunted growth. Particularly alarming was the high frequency of multiple infections, where plants were affected by several

viruses at once. “Our findings suggest that chickpeas in Germany are under substantial infection pressure, especially when grown near pea fields, which can also harbor these viruses. These initial detections highlight the challenges of cultivating chickpeas in Germany,” summarises Dr. Björn Krenz, head of the Plant Virus Department at DSMZ.

The future of chickpea cultivation in Germany

The insights from this study are a crucial step toward developing more resistant chickpea varieties and integrated plant protection strategies.

To sustainably meet the growing demand for regionally produced chickpeas, robust plants capable of resisting viral infections are essential.

“Our research once again demonstrates how vital collaboration between research institutes such as DSMZ, ZALF, and JKI is in developing practical solutions for agriculture,”

concludes plant virologist Björn Krenz. Future research will focus on identifying resistant chickpea varieties and testing alternative cultivation and control strategies. A promising approach could be the targeted breeding of virus-resistant varieties, combined with the use of natural enemies of virus-transmitting insects. Early screening for virus tolerance in breeding programs could help eliminate susceptible varieties at an early stage. Additionally, a systematic virus screening of commercial chickpea varieties would provide farmers with informed selection criteria for more resilient crops. “Given the increasing demand for regionally produced legumes, it will be crucial for policymakers, scientists, and farmers to work closely together to enable sustainable production,” Krenz emphasises. The current research results provide an important foundation for future measures, as healthy plants are the basis of successful agriculture.



Dr. Björn Krenz, head of the Plant Virus Department at the Leibniz Institute DSMZ

Original publication

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