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Julius Kühn Institute (JKI), Federal Research Centre for Cultivated Plants
Leibniz Centre for Agricultural Landscape Research (ZALF)

Joint press release by JKI and ZALF

New research hub *FoodBase* aims to make Germany's food supply more crisis-proof

Extreme weather, fragile supply chains, and new pathogens pose growing challenges to food security. To develop resilient farming systems as the foundation for food and supply security, the Julius Kühn Institute (JKI) and the Leibniz Center for Agricultural Landscape Research (ZALF) are jointly establishing "FoodBase," a nationwide network for agricultural and food research. With this new consortium, the partners are creating a coordinated scientific resource for policymakers and practitioners. The three-year development phase is funded by the Federal Ministry of Agriculture, Food and Regional Identity (BMLEH) (BMLEH).

To date, research on agriculture and food in Germany has been scattered across numerous institutes and universities, a situation that the German Science Council analyzed in its 2024 Position paper and addressed with a recommendation for permanent research networks, known as "Food System Research Hubs." FoodBase builds on this recommendation. The consortium aims to systematically share existing research infrastructures for the first time: from experimental plots, monitoring networks and research data infrastructures to Living Labs, as well as modeling and computing capacities.

"Sharing scientific infrastructure conserves resources and unlocks synergies that individual institutions cannot achieve on their own," explains **Prof. Dr. Frank Ordon, President of the JKI and co-spokesperson for FoodBas**e. "By linking data, models, and field trials, complex agricultural issues can be addressed in a much more well-founded and timely manner."

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Scientific Decision-Making Support in Times of Crisis

In the event of acute emergencies—such as geopolitically driven shortages of agricultural inputs or regional crop losses—FoodBase quickly provides decision-makers with data-driven analyses and action scenarios.

"With FoodBase, we aim to create a central hub that can quickly provide scientific expertise in the event of a crisis," explains **Prof. Dr. Frank Ewert, Scientific Director of ZALF and Co-Spokesperson for FoodBase**. "When supply chains are disrupted or extreme weather threatens the harvest, we must be able to provide well-founded recommendations for action to policymakers and practitioners within a short time."

Focus Areas: Resilient Farming Systems and Healthy Nutrition

The FoodBase consortium also addresses preventive issues in three complementary areas of work. The initial focus is on the further development of farming systems: By increasing the cultivation of native grain legumes and other protein crops, crop rotations are intended to become more climate-resilient and reduce dependence on imports. At the same time, FoodBase is researching integrated strategies to significantly reduce the use of synthetic chemical pesticides, including through resistant varieties, expanded crop rotations, and a deeper understanding of the plant microbiome. Finally, the third area of work analyzes the interface with consumers: It examines how balanced foods can remain available and affordable even during market disruptions, particularly for at-risk health groups.

The five cross-cutting themes breeding, value chains, digital innovations, system scenarios, and governance permeate these three areas of work and serve as their unifying element. They serve as the framework for FoodBase's systemic approach, enable far-reaching integration and consideration of the topics across all areas of work, and thus lay the foundation for addressing complex, interdisciplinary challenges in agricultural and food systems.

Network Building and Participation

FoodBase is designed for long-term collaboration and is gradually incorporating additional partners from universities, government research institutions, and the applied research sector. An initial nationwide network meeting to present the working structures and pilot projects is scheduled for late 2026 in Bonn.

Project partner:

- Julius Kühn Institute (JKI), Federal Research Centre for Cultivated Plants, Quedlinburg
- Leibniz Centre for Agricultural Landscape Research (ZALF), Müncheberg

Funding:

FoodBase is funded by the Federal Ministry of Agriculture, Food and Regional Identity (BMLEH) via the Federal Office for Agriculture and Food (BLE) (grant number: [28DHU01A26]).

Further information:

Position paper of the German Science and Humanities Council "Perspektiven der Agrar-, Lebensmittel- und Ernährungswissenschaften" (2024, in German): https://www.wissenschaftsrat.de/download/2024/1956-24.html

Note on the text:

This is a summary of the original text created with the help of artificial intelligence (Generated with AI, expert-reviewed under AITS · [AI] TXT-G · ai-label.science): Julius Kühn-Institut, Leibniz-Zentrum für Agrarlandschaftsforschung (2026): Food Systems Research Hub: Resiliente Anbausysteme – Basis für Ernährungs- und Versorgungssicherheit (FoodBase). Full proposal to the Federal Office for Agriculture and Food (BLE), 31 August 2026.

The text has been carefully reviewed and revised in the light of ZALF's AI guidelines.



Sabrina Dettmann, an intern training to become an agricultural and technical assistant, examines plant in vitro cultures in a JKI climate chamber. | The picture can be used for editorial purposes by stating the source: © Johannes Kaufmann / JKI | Picture in color and print quality: http://www.zalf.de/de/aktuelles

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About the Leibniz Centre for Agricultural Landscape Research (ZALF) in Muencheberg, member of the Leibniz Association:

Mission of ZALF is to deliver solutions for an economically, environmentally and socially sustainable agriculture –together with society.

As a contribution to overcoming global challenges such as climate change, food security, biodiversity conservation and resource scarcity, we develop and design crop systems, integrated in their landscape contexts that combine food security with sustainability. Therefore, we process complex landscape data with a unique set of experimental methods, new technologies and models as well as socio-economic approaches.

ZALF research is integrated systems research: starting from processes in soils and plants to causal relationships on the field and landscape level up to global impacts and complex interactions between landscapes, society and economy.
www.zalf.de/en

About the Julius Kühn Institute (JKI), Federal Research Centre for Cultivated Plants:

The Julius Kühn Institute (JKI) is the Federal Research Centre for Cultivated Plants in Germany and an autonomous higher federal authority within the remit of the

Federal Ministry of Agriculture, Food and Regional Identity (BMLEH). Headquartered in Quedlinburg with several sites across Germany, the institute employs around 1,300 staff—including roughly 500 researchers—bringing together scientific expertise across the entire value chain of agricultural, horticultural, and forestry crops.

The JKI's research follows a systemic approach centred on the interplay between genetics, environmental conditions, and crop management. From integrated pest management and breeding research to plant health, the institute develops resilient cropping systems alongside site-adapted, resistant varieties that safeguard yields while minimising risks to the environment and biodiversity. To achieve this, the JKI integrates methods ranging from the molecular level right through to field trials.

As a departmental research institution, the JKI combines application-oriented basic research with science-based policy advice and statutory assessment duties. The institute provides a sound basis for decision-making for both the Federal Government and practitioners, evaluates plant protection products as well as phytosanitary risks, and represents a vital link between the laboratory, the field, and policymaking on international committees.

www.julius-kuehn.de/en