# Berkshire firm pioneers vertical farming to boost UK’s food self-sufficiency amid climate crisis



As climate change continues to disrupt agricultural practices and political tensions strain global food supply chains, a company in Berkshire is making strides towards self-sufficiency through innovative farming techniques. The Innovation Agritech Group (IAG) has established a pioneering indoor farm in Bracknell, utilising vertical panels to cultivate crops year-round. Hard-to-grow herbs and vegetables such as basil, coriander, and lettuce are thriving in this controlled environment, which allows for consistent food production despite the precariousness of outdoor growing conditions in the UK.

The urgency of this initiative is underscored by recent agricultural challenges. Farmers across England are grappling with the consequences of increased drought conditions and adverse weather patterns. In 2022, the country endured its second-worst growing season on record, alarming numerous growers about the potential impact on future harvests. Liz Webster, who manages a breeding operation in Wiltshire alongside her role as head of the Save British Farming campaign, emphasised the pressing nature of the crisis faced by local agriculture. She noted that government policies have disproportionately favoured environmental goals over domestic food production, leading to an over-reliance on imports that jeopardises Britain’s self-sufficiency.

IAG is addressing these problems through its advanced farming technologies, notably the GrowFrame360™ system, which employs automated processes to maximise efficiency. This innovation produces crops using minimal water and soil-free methods, potentially yielding up to fifteen harvests annually. The closed-loop irrigation system integrated within the GrowFrame technology significantly reduces water usage compared to conventional agriculture—by as much as 98%. Such advancements not only promote sustainability but also position IAG at the forefront of a necessary evolution in agricultural practices amid changing climatic conditions.

This growing trend towards vertical farming is being mirrored in other regions of the UK. For instance, a new facility in Gloucestershire demonstrates how high-tech agriculture can redefine traditional growing methods. Spanning 14,500 square metres, this farm produces crops like basil in an astonishingly efficient 18 days, highlighting improved growth cycles and yield potential. These systems shield plants from environmental stresses, significantly reducing carbon emissions associated with long-distance food transportation.

The potential of vertical farming extends beyond individual operations; it presents a vital opportunity for the UK to address its £6 billion deficit in fruit and vegetable production. By leveraging these innovative solutions, the country could cultivate over 200 varieties of crops indoors, navigating the challenges posed by climate change and pests while reducing dependency on imported goods.

However, experts and advocates express concern over the broader implications of shifting agricultural priorities. The Save British Food campaign aims to uphold high standards in domestic food production, warning that trade agreements could undermine British agriculture by allowing lower-quality imports to flood the market. Advocates like Webster argue that it is crucial to balance environmental initiatives with the need to secure the UK’s food sovereignty.

As agriculture continues to evolve in response to external pressures, the potential of vertical farming emerges as a beacon of hope. By adopting these groundbreaking technologies, not only can Britain reduce its reliance on imports, but it may also establish a sustainable model for producing food capable of withstanding the inevitable challenges of a changing climate.

### Reference Map

1. Paragraphs 1, 2, 3
2. Paragraphs 4, 5
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4. Paragraphs 6
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6. Paragraphs 5
7. Paragraphs 4

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.verticalfarmdaily.com/article/9731490/uk-at-the-farm-where-every-day-is-summer/> - Please view link - unable to able to access data
2. <https://www.verticalfarmdaily.com/article/9731490/uk-at-the-farm-where-every-day-is-summer/> - The article discusses the Innovation Agritech Group's indoor farm in Bracknell, Berkshire, which grows basil, coriander, and lettuce year-round using vertical panels. This method aims to provide consistent food supply in the UK, addressing challenges posed by climate change and global political tensions affecting food security. The piece also highlights concerns from farmers like Liz Webster, who leads the Save British Farming campaign, about the impact of government policies prioritizing environmental concerns over domestic food production, leading to increased imports and potential threats to local agriculture.
3. <https://iagri-tech.com/innovation-agritech-group-breaks-ground-as-first-to-install-commercial-standard-vertical-farm-at-uk-university/> - Innovation Agritech Group (IAG) has partnered with the University of Essex to install the first commercial-standard vertical farm at a UK university. This collaboration aims to revolutionize agricultural research by addressing challenges in food production amidst climate change. The GrowFrame360™ technology, developed by IAG, utilizes minimal water and soil-free growing methods, offering a sustainable solution for year-round crop production. The initiative underscores a shared commitment to advancing agricultural sustainability through innovation and research.
4. <https://iagri-tech.com/innovation-agritech-group-launches-revolutionary-new-vertical-farming-technology-the-growframe-360/> - Innovation Agritech Group (IAG) has unveiled the GrowFrame™ 360, a cutting-edge vertical farming solution designed to revolutionize crop production. This technology allows for year-round cultivation, independent of climate conditions, and can potentially accelerate crop growth to 15 harvest cycles per year. The system is fully automated, featuring real-time data monitoring and scalability. Additionally, it employs a closed-loop irrigation system that uses 98% less water than traditional farming methods, promoting sustainability and efficiency in agriculture.
5. <https://www.agritechtomorrow.com/news/2023/03/08/vertical-farming-can-alleviate-uks-%C3%82%C2%A36bn-over-reliance-on-food-imports/14426/> - Intelligent Growth Solutions (IGS) highlights the potential of vertical farming to address the UK's £6 billion deficit in fruit and vegetable production. By implementing vertical farming technologies, the UK can produce over 200 varieties of crops indoors, shielded from weather and pests. This approach not only enhances food security but also offers faster growth cycles and increased yields compared to traditional farming methods. The integration of vertical farming is seen as a strategic move to bolster domestic food production and reduce reliance on imports.
6. <https://www.agritechfuture.com/vertical-farming/revolutionary-vertical-farm-in-gloucestershire-ushers-in-new-era-of-high-tech-agriculture/> - A state-of-the-art vertical farm in Gloucestershire is setting new standards in high-tech agriculture. Spanning 14,500 square meters, the facility maintains optimal conditions for rapid plant growth, enabling crops like basil to progress from seed to harvest in just 18 days. This method significantly reduces carbon emissions compared to importing crops and offers resilience against weather-related challenges and pests. Despite high energy demands, the farm utilizes renewable electricity sources to minimize its carbon footprint, showcasing a sustainable model for year-round food production.
7. <https://savebritishfood.org/> - Save British Food is a campaign dedicated to protecting British farming and food standards. The initiative focuses on opposing government policies that may compromise domestic agriculture, such as trade deals that could lead to the importation of lower-quality food products. The campaign emphasizes the importance of maintaining high standards in food production to ensure consumer safety and support local farmers. Through various activities, including demonstrations and lobbying, Save British Food aims to raise awareness and advocate for policies that prioritize British agriculture.