

Vietnam to advance biocontrol collaboration with experts from CABI and China to promote sustainable agriculture

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Protecting Vietnam's agricultural future



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Working in partnership with CABI and experts from the Shandong Academy of Agricultural Sciences (SAAS), a new collaboration allows Vietnam to advance biocontrol research, build national capacity and support farmers in adopting environmentally responsible pest management practices.

Agriculture is integral to Vietnam's economy. In 2024, the sector achieved a record USD 62.4 billion in exports. Rice alone accounted for 9 million tonnes, generating over USD 5.7 billion. Meanwhile, fruit and vegetable exports climbed to USD 7.2 billion, with durian accounting for USD 3.4 billion. Coffee, pepper and other crops also contributed significantly, highlighting the sector's role in national revenue and food security.

Despite its success, Vietnamese agriculture faces threats from pest and diseases, challenges that are made worse by the impacts of climate change. On average, farmers lose 37% of rice yields to pests and diseases. Fall armyworm was detected in 2019 and has spread widely across the country, causing severe damage to maize. Meanwhile, thrips and whiteflies continue to threaten vegetables. Poor management practices amplify these losses, aggravating an already difficult situation. Supporting farmers to implement sustainable pest management is therefore critical in protecting the future of Vietnam's agricultural sector.

Partnerships for a sustainable future

Vietnam is a valued Member Country of CABI, joining officially in 1992 – a membership which can be seen as an international extension of Member Countries’ capabilities. During this strong partnership, CABI and the Vietnam Academy of Agricultural Sciences (VAAS) and other organizations have helped the country to mitigate pests and diseases, meet sanitary and phytosanitary requirements and engage with key agricultural value chains.

For example, as part of the Safer Spices: Boosting Food Safety and Market Access for the Peppercorn Value Chain in South East Asia project, CABI helped Vietnam take the lead in developing a Code of Practice (CoP) for peppercorn production. The CoP yielded positive results not only for Vietnam, with better pest management practices and yield increases, but also south-south collaboration with Cambodia and Laos.

This new collaboration, facilitated by CABI, builds on existing relations and includes a Memorandum of Understanding (MoU) between VAAS, CABI and SAAS. The agreement formalizes their partnership and sets a framework for joint research, knowledge sharing and a new Centre of Excellence for Biological Control.

As a result, it demonstrates how scientific expertise, regional cooperation and practical application can address agricultural challenges. By reducing pesticide use, improving crop health and protecting biodiversity, VAAS, SAAS and CABI are building a sustainable and climate-resilient food system.

Dr Feng Zhang, CABI Regional Director for East and Southeast Asia, said, “This tripartite collaboration brings practical, science-based solutions to farmers, helping them grow safer and high-value agricultural produce while protecting the environment.”

Increasing Vietnam’s biocontrol knowledge

Taking advantage of networking opportunities, knowledge exchange and technology transfer – key benefits of being a CABI Member Country – the signing of the MoU took place during a high-level visit which included a biological control seminar at the Plant Protection Research Institute in Hanoi. SAAS and CABI experts demonstrated mass-rearing techniques for natural enemies like *Trichogramma*, *Orius*, and predatory mites. The seminar included hands-on sessions, interactive discussions and practical demonstrations.

Following the seminar, the team visited a melon cooperative farm. They observed pest challenges firsthand and discussed biocontrol solutions with farmers. These visits highlighted the importance of adapting techniques to local conditions and helping farmers apply Integrated Pest Management effectively, helping Vietnam to advance biocontrol knowledge.

“Working closely with Vietnamese colleagues allowed us to share practical techniques and adapt them to local farming conditions,” said Prof Li Zheng, biocontrol expert of SAAS. “We are excited to see these solutions implemented to reduce pesticide use and improve crop productivity.”

Conventional pesticide use increases resistance and environmental risks. Biological control provides a nature-based solution, reducing chemical inputs, protecting biodiversity and improving yields. Through this exchange, CABI helps Vietnam scale these solutions regionally and support climate-smart farming practices.