AgroSpectrum ASIA
Envisaging Future | Updating Present

Vietnam and Russia see high-tech agriculture as next frontier for bilateral cooperation

08 September 2026 | News

Digital farming, AI, biotechnology and joint research could deepen agricultural ties as Vietnam and Russia look beyond traditional trade

Vietnam and Russia are looking to take their agricultural relationship into a more technology-driven phase, with researchers from both countries identifying artificial intelligence, automation, biotechnology and digital farming as areas where their capabilities could complement each other. The opportunity comes as agriculture globally moves toward data-driven production, with farmers and agribusinesses increasingly using AI, remote sensing, robotics and digital platforms to improve yields, manage resources and respond to climate risks.

For Russia, the push into high-tech agriculture is being supported by advances in biological sciences, digital farming and agricultural automation. Vietnam, meanwhile, brings decades of experience in intensive tropical agriculture, rice production and aquaculture—creating potential for cooperation that goes beyond the conventional exchange of agricultural commodities and technology.

Professor and Academician Gennady Karlov, Director of the All-Russian Research Institute of Agricultural Biotechnology (VNIISB), said high-tech agriculture has become a strategic area for Vietnam-Russia cooperation, alongside automation, AI and biotechnology. Russia's agricultural technology development is increasingly linked to biological research, with VNIISB using digital phenotyping and artificial neural networks to accelerate plant breeding and genetic research.

The complementary nature of the two agricultural systems could provide a foundation for joint innovation. Vietnam has developed expertise in intensive farming systems, rice cultivation and aquaculture suited to tropical conditions, while Russia has significant capabilities in large-scale grain and oilseed production, crop breeding and agriculture across diverse climatic zones.

Researchers from the two countries are already exploring cooperation in rice. Joint work includes the cultivation of Indica and Japonica varieties in Russia, as well as exchanges of genetic resources for breeding and genomics research. The potential agenda is broader still. Remote sensing, AI-based agricultural forecasting, food safety, quality control and technologies for adapting agriculture to climate change have all emerged as possible areas for collaboration.

Karlov has also proposed establishing a Vietnam-Russia innovation corridor focused on knowledge-intensive projects and joint laboratories. Research institutions including VNIISB and the Russian State Agrarian University–Moscow Timiryazev Agricultural Academy are working with Vietnamese counterparts on scientific exchanges and training programmes for students and young researchers.

The scale of Russia's digital agriculture ambitions could make the partnership particularly relevant. Pham Thi Thu Ba, a master's student at the Russian State Agrarian University, said Russia is accelerating digitalisation and automation under its strategy for developing the agro-industrial and fisheries complexes through 2030.

Russia plans to launch a unified digital agricultural platform by the end of 2026, linking information on land, crops, livestock, weather and logistics. By 2030, at least 80 per cent of agricultural enterprises are expected to use domestically developed software for key production processes.

The country is also expanding the use of precision agriculture and autonomous machinery. Around 24,000 AI-integrated autonomous agricultural machines are reportedly in operation in Russia in 2026, while businesses are adopting technologies ranging from soil mapping and drones to robotic milking systems and domestic agricultural software.

For Vietnam, access to such technologies could complement its own strengths in intensive production and tropical agriculture. For Russia, Vietnamese expertise could help adapt agricultural technologies and production models to warmer climates and different farming environments. But turning that potential into commercial projects will not be straightforward.

Ba pointed to several barriers, including the gap between cooperation plans and concrete projects, differences in natural conditions and technical standards, logistics and payment challenges, and quarantine requirements. The economics of the relationship also point to room for expansion. Bilateral agricultural trade has doubled over the past five years to about $1 billion annually, according to Ba, but investment in high technology remains relatively limited.

That could signal the next stage of the relationship: moving from trading agricultural products and transferring existing technologies toward jointly developing new ones. For Vietnam and Russia, the bigger opportunity may therefore lie not simply in importing technology, but in combining research capabilities, agricultural know-how and local market knowledge to develop solutions suited to specific production environments.

A shift toward joint research, co-development and technology localisation could give both countries a stronger position as agriculture becomes increasingly shaped by data, automation and artificial intelligence. If that transition takes hold, Vietnam-Russia agricultural cooperation could evolve from a conventional trade relationship into a more technology-led partnership—linking Russia's scientific and engineering capabilities with Vietnam's experience in intensive and tropical agriculture.