AgroSpectrum ASIA
Envisaging Future | Updating Present

DaBeiNong's new corn trait signals next phase of China's Biotech breeding push

24 November 2026 | News

The DBN3601TÃ?DBN9229 trait combines four insect-resistance genes targeting multiple lepidopteran pests, taking the company's portfolio of domestically approved biotech seed traits to 10 and strengthening its commercialisation pipeline across corn and soybean



China's push to commercialise agricultural biotechnology has received another boost, with Beijing DaBeiNong Biotechnology, a subsidiary of DaBeiNong Group, securing regulatory approval for an upgraded insect-resistant corn trait designed to strengthen crop protection against multiple lepidopteran pests. The company's DBN3601T×DBN9229 corn trait has received an agricultural genetically modified organism (GMO) safety certificate for production application, under approval number NongJianZhengZi (2026) No. 151. The approval expands DaBeiNong Biotechnology's portfolio of domestically authorised biotech seed traits to 10, comprising five corn and five soybean products.

The newly approved trait represents an upgrade to the company's existing DBN3601T technology. While the earlier trait incorporates the insect-resistance genes cry1Ab and vip3Aa19, the new combination adds cry1Fa2 and cry2Ab2, bringing together four insect-resistance genes intended to provide broader protection against lepidopteran pests. The development reflects the growing emphasis on stacked genetic traits in commercial seed technology, where combining multiple modes of insect resistance is intended to improve the breadth of pest protection and strengthen crop performance across different growing environments.

Four-gene combination expands insect-resistance technology

The DBN3601T×DBN9229 trait builds on an existing technology platform by incorporating two additional insect-resistance genes into the genetic configuration. According to the company, the combination of cry1Ab, vip3Aa19, cry1Fa2 and cry2Ab2 introduces additional insect-resistance mechanisms and broadens protection against multiple lepidopteran pests. The technology is expected to offer growers improved options for managing insect pressure while supporting higher planting

returns and strengthening the competitiveness of commercial corn varieties.

Stacked traits have become an important area of investment in agricultural biotechnology. By combining different insect-resistance mechanisms, developers seek to broaden pest-control coverage and address limitations associated with reliance on individual resistance genes. For seed companies, such technologies also have implications beyond crop protection. The availability of differentiated genetic traits can strengthen breeding pipelines, expand the range of commercial seed offerings and improve the competitive positioning of domestic seed businesses.

Approved portfolio spans corn and soybean

With the latest regulatory clearance, DaBeiNong Biotechnology's domestic portfolio comprises 10 biotech trait products approved for production application. The corn portfolio includes DBN9936, DBN9858, DBN9501, DBN3601T and the newly approved DBN3601T×DBN9229. Its soybean portfolio includes DBN9004, DBN8002 and DBN8205, alongside the stacked combinations DBN9004×DBN8002 and DBN9004×DBN8002×DBN8205.

The progression from single-trait products to double- and triple-stacked combinations reflects the company's strategy of developing a differentiated technology portfolio for varying agricultural conditions. Such a tiered configuration can provide seed developers with greater flexibility in designing varieties suited to different production regions, pest pressures and cultivation systems. It also creates opportunities to integrate proprietary biotech traits into broader commercial breeding programmes.

The company has also secured dual certification through ETS and ISO9001, adding to its quality and operational credentials.

International approvals strengthen market access

DaBeiNong Biotechnology's regulatory strategy extends beyond the Chinese market, with several soybean trait products securing planting approvals in major South American agricultural economies. Three products – DBN8002, DBN9004 and DBN9004×DBN8002 – have received planting permits in Brazil, Argentina and Uruguay. The DBN8205 soybean trait has secured planting approval in Argentina, while the triple-stacked DBN9004×DBN8002×DBN8205 combination has received approval in Brazil.

The company has also secured European Union import approval for DBN9004, providing an additional regulatory pathway for international soybean trade. In China, DBN9004 and DBN8002 have obtained domestic GMO safety certificates for import, supporting the company's strategy of linking technology development and overseas commercialisation with access to imported agricultural commodities.

These regulatory clearances are significant in a global seed market where the commercial value of biotech traits increasingly depends on approvals across multiple jurisdictions. For technology developers, securing authorisation in major agricultural economies can widen potential market access, support cross-border seed and commodity trade, and improve the commercial viability of investments in genetic innovation.

Biotech breeding moves towards commercial scale

The latest approval comes amid China's broader effort to strengthen domestic agricultural biotechnology capabilities and advance the commercial application of genetically modified crop technologies.

For DaBeiNong Biotechnology, expanding its portfolio of stacked corn and soybean traits is central to building a stronger position in the biotech breeding market. The company intends to continue investing in technological innovation and developing trait products that can contribute to agricultural productivity, crop protection and seed industry competitiveness.

It also identifies reduced pesticide use, improved agricultural product quality and greater production efficiency as potential benefits of its technology development strategy. However, the commercial impact of the latest approval will ultimately depend on the successful integration of the trait into competitive seed varieties, farmer adoption, field-level performance and the ability to navigate regulatory requirements across domestic and international markets.

As China advances the commercialisation of biotech breeding, companies with established trait-development capabilities and expanding international regulatory portfolios are likely to play an increasingly important role in shaping the country's agricultural technology landscape.