



## Switch Bioworks secures Brazil approval, strengthening its global position in engineered agricultural microbes

01 October 2026 | News

**Approval moves Switch toward Brazil field evaluation, adding a major biologicals market and a new testing window to accelerate data generation and product development**



Switch Bioworks, a deep-tech biotechnology company building programmable microbes, today announced that Brazil's National Technical Biosafety Commission (CTNBio) has approved the company's dossiers, advancing Switch toward field testing of its engineered nitrogen-fixing microbes in one of the world's largest agricultural markets and one of the most advanced markets for biological inputs. Brazil's complementary growing seasons create the potential for additional field-learning cycles each year, accelerating data generation and product development. The milestone builds on Switch's U.S. regulatory and field progress and research in Kenya, expanding development of a new category of biofertilizer across three continents.

Nitrogen fertilizer is essential to crop production globally, but conventional production relies on the energy-intensive Haber-Bosch process and remains vulnerable to global energy, price and supply disruptions. Switch's platform is built on making nitrogen with biology, following a simple principle: grow first, produce second. Its genetic switches allow microbes to establish on plant roots before activating nitrogen production, addressing the fundamental energy trade-off that has long constrained biological nitrogen fixation. In laboratory studies, Switch's switchable microbes fixed approximately five times as much nitrogen on plants as always-on controls. The company is now testing that architecture in the field to understand how it performs across environments and real agricultural practices.

Switch currently has active field work in the United States and Kenya. In the United States, USDA- and EPA-authorized multi-site corn field trials are evaluating the technology across six states in the Midwest. In Kenya, Switch is testing several microbial candidates in smallholder farming systems with local research partners, broadening the scope of its development program. Future field testing in Brazil extends that work into South America.

Brazil represents both a significant market opportunity and a valuable development environment for Switch. As the world's largest exporter of soybeans and a top-three corn producer, the country combines enormous agricultural scale with one of the world's most advanced markets for biological inputs. Its soils, farm-management practices and climate also differ from

Switch's current field work, creating a new setting to test the same genetic-control platform. Brazilian growers are exposed to volatility in global nitrogen fertilizer markets, underscoring the potential value of biological technologies that could ultimately provide an additional source of nitrogen produced closer to where crops need it. Based on publicly available information, Switch represents a new category of biological fertilizer in Brazil: an intergeneric genetically engineered microbe designed to live and function in the field.

"Brazil is a global powerhouse in agricultural biologicals, with world-class research, commercial scale and strong farmer adoption," said Tim Schnabel, founder and CEO of Switch Bioworks. "Adding Brazil gives us a new regulatory pathway and the opportunity to demonstrate how programmable microbes perform consistently across distinct agricultural environments. Each new geography we add to our development program accelerates our learning and strengthens the infrastructure needed to deploy this technology globally."

Switch's core genetic-switch technology is covered by seven patent families. Nitrogen fertilizer is the first application for a broader platform designed to enable programmable microbes to perform specific functions in complex, real-world environments beyond traditional fermentation systems. Switch is building toward a future where manufacturing is no longer confined to factories—where programmable microbes make what we need, where we need it, when we need it.