Soybean, as a protein and vitamin rich crop, holds considerable potential for improved livestock and human nutrition while raising African farmers’ incomes and spurring rural economic growth. Soybean is new to much of the continent, so varieties adapted to the unique agro-ecological zones of tropical Africa are essential for the region’s farmers to take advantage of this dynamic crop.

Farmers accessing appropriate locally adapted varieties for their region means the difference between subsistence and sustained profitability.

In an effort to improve soybean yields, the Soybean Innovation Lab (SIL) collaborates with its partners at the International Institute of Tropical Agriculture (IITA) and the National Agricultural Research System (NARS) in several countries to establish a sound foundation for soybean breeding and improve the supply of high-quality soybean seed in Africa.

The SIL-IITA-NARS teams collaborate in all aspects to improve breeding programs and seed system performance. The teams now utilize high volumes of quality germplasm from the Americas, Asia, and throughout Africa to ensure farmers have access to the next generation of high-quality genetics. Together, they are introducing hundreds of new high-yielding and disease-resistant lines for crossing and adaptation to Africa’s unique environments.

The breeding teams are developing new cultivars that are resistant to soybean rust and bacteria pustule, can more efficiently fix nitrogen, can better tolerate the low phosphorus levels commonly found in tropical soils, can be easily processed for household consumption, and can produce high yields in local settings.

Complementary investments are also being made in equipment, mechanization, training, and process improvement to enable the public breeding community to scale up their breeding programs to meet the rapidly changing needs of African soybean farmers.
African breeding programs have also begun to evaluate the impact of including inoculum and fertilizer in the planting process, which the researchers will study in terms of soil nutrient analysis and its impact on plant growth.

The program also involves direct mentorship of the head soybean breeders at these institutions through both African and U.S.-based technical training, knowledge sharing, resource support and through the provision of research equipment necessary to increase the scale and efficiency of the national African soybean breeding programs.

The Feed the Future Innovation Lab for Soybean Value Chain Research is USAID’s only comprehensive program dedicated to soybean technical knowledge and innovation. Our international team of tropical soybean experts provides direct support to researchers, private sector firms, non-governmental organizations, extensionists, agronomists, technicians and farmer associations tasked with soybean development.