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Progress in the CSIR-SARI soybean breeding program under the Soybean Innovation Lab project

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Among the major challenges of the CSIR-SARI Soybean Breeding Program before the start of the Soybean Innovation Lab (SIL) project were lack of adequate and diverse germplasm base, poor research infrastructure and inadequate funding. The International Institute of Tropical Agriculture (IITA) has been the only source of germplasm for SARI. Since 2014 however, over 300 soybean lines were received from USDA/University of Illinois and included in the crossing program. Under the USAID Direct Support to SARI project, with technical backstopping from scientists from the University of Illinois, a seed laboratory is being constructed for the breeding program. The Agricultural Technology Transfer Project (ATT/IFDC) is also rehabilitating an irrigation dam for SARI which is anticipated to be ready for use by mid-year 2017. SIL has also provided soybean threshers which have helped to speed up threshing, hitherto done by hand-held sticks, with adverse effects on seed quality. Funding from SIL has enabled the program to support other pressing research areas such as plant population and fertilizer requirement studies, effectiveness of artificial inoculants and screening of various weedicides for weed control. Again, additional funding has enabled SARI to conduct yield tests outside of its traditional mandate area to cover the Savannah Accelerated Development Agency (SADA) zone as improved varieties from SARI are in demand throughout Ghana. Breeder education (African Plant Breeding Academy), soy kick-off events, regional trials and related project activities have made SARI more visible. Plans are advanced for the release of a pipeline variety in 2017. Proximate analysis and sensory tests for the pipeline genotype which are needed to complete a proposal to the National Variety Release and Registration Committee of Ghana have been completed. The program has more than doubled with the support of SIL and set to expand several-fold with the completion of its research infrastructure.