CIP acquisition of third-party technology related to late blight resistance in potato for introduction into improved varieties and dissemination to farmers in Uganda and regionally.

Background: The agreement provides CIP access to a late-blight-resistance gene (RB gene) for introduction into improved varieties and release as transgenic varieties in developing countries under terms and conditions designed to facilitate access by developing country farmers on a fair and reasonable cost basis subject to stewardship requirements. This technology is proprietary and comparable traits with similar agronomic performance are not available to CIP.

Potential benefit to smallholders: In Uganda, where about 300,000 smallholder households grow potatoes for subsistence and income, the disease can destroy as much as 60% of a farmer’s potato crop, which translates into annual losses of approximately $129 million. Farmers commonly use fungicides to control late blight, but those agrochemicals are costly, the pathogen gradually adapts to them, and they pose potential risks to human health and the environment. Hence, the new transgenic varieties anticipated to be widely adopted by farmers provides the benefits of growing a variety of potatoes that are familiar to farmers and consumers without the need to use fungicide. In addition to lowering farmers’ production costs and improving their harvests, the late-blight-resistant potato will reduce the health impact that fungicides pose in potato-farming regions.

Dissemination strategy, stewardship plan, and regulatory compliance: CIP disseminates its technologies via partners who oversee their commercialization to the intended users. In Uganda, the new transgenic varieties containing the RB gene and other resistance genes will be multiplied by the National Agriculture Research Organization and/or private seed providers following good stewardship practices and sold to farmers in a similar manner as conventional varieties; however, this release may be subject to restrictions stipulated by the National Biosafety Bill which are still unknown until approved by the parliament and the president. To comply with the regulatory and biosafety requirement and stewardship, this technology will likely not reach farmers for several years. CIP has included a public communication on its website containing key information concerning the Restricted Use Agreement. The project is at proof of concept stage and CIP anticipates making further public communications as the project advances through key milestones.