



**Bambara groundnut breeding
at Grow Further and CSIR-SARI**

Kirkhouse Trust Bambara
Groundnut Breeding Symposium

February 21, 2024

**Peter Kelly, Chair
Grow Further**

Grow Further, problems addressed

Food insecurity: Hunger/malnutrition and rural poverty, exacerbated by climate change, calls for innovation

Problem #1

- Agricultural scientists with big ideas to address food insecurity struggle to get funding
- Especially smaller projects, overlooked areas like neglected and underutilized crops

Problem #2

- “I want to support the future of food security. How do I get involved?” has no answer outside of a career
- Unlike medical research, food banks, etc.
- American individuals outgive foundations 5:1 in general



About Grow Further

Public charity in Seattle, privately funded
3 FTE

Independent, though advisory committee has lots of overlap with
creators of Gates agricultural program



What Grow Further Does

1. Make open and open-ended grant announcements

- Example: Help smallholder farmers adapt to climate change, propose an R&D project in any field
- Why: Culturally relevant, efficient vs. in-house operations

2. Aim high

- 700+ applications in 1st announcement
- #1 criterion: Will the results be adopted and reach scale?



What Grow Further does

3. Engage

- Engage farmers
- Donors and volunteers from different backgrounds like an angel investment group



CSIR-Savanna Agricultural Research Institute

- Council for Scientific and Industrial Research is a Ghanaian government research institute
- SARI, located in Tamale, northern Ghana, spun off Crops Research Institute in 1994
- Mandate: “provide small-scale farmers in the three regions of northern Ghana (Northern, Upper East and Upper West) with appropriate innovations and technologies to increase their food and fibre crop production based on a sustainable production system which maintains and/or increases soil fertility.”





Project Background

- Bambara groundnuts have numerous benefits but under-researched
- Limited production in Ghana vs. Nigeria, no commercial varieties
- WhatIf Foods buys beans for milk production (proprietary variety)
- CSIR-SARI has 96 diverse and non-duplicate accessions ready to test and release as a commercial variety



Project Overview

Project Title: Promoting Bambara groundnut (*Vigna subterranean*) production, adoption and utilization for food and nutrition security and increased income for smallholder farmers in northern Ghana

- **Primary Expected Output:** First commercial variety of Bambara groundnut
- **Total Grant Amount:** \$132,949.60
- **Grant Period:** November 7, 2023 - December 31, 2026
- **Grow Further provides 100% of funding plus capacity building (eg, M&E, communications)**



Project components (participatory plant breeding)

Socioeconomics

- Survey focused on gender trait preferences (e.g., early maturity)
- Baseline survey for evaluation
- Participatory evaluation and sensory analysis

Scientific Research

- Multi-location, advanced yield, and mother-baby trials
- Fertilizer and weed control trials

Extension

- Innovation platforms and farmer field school demonstrations



Recognition

- US State Department VACS Champions
- Ghanaian media: GH One TV, Business Ghana, Ghanaian Standard, Ghana News Agency
- US Media: Global Washington, UC Davis CA&ES Highlights, Real P3 podcast, Big Show podcast
- Other media: Farmers Review Africa, Kenya Farm to Table podcast, interview with major British newspaper





GROW FURTHER

Connecting people and ideas for a food-secure future

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