

# WACCI's Vegetable Innovation Lab (VIL)

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# Some popular vegetables in Ghana



# Uses of tomato









# What is VIL?

## About VIL

Development champion  
Platform for all VVC actors  
Hub for R&D  
Influence in Ghana & WCA

Government  
agencies

## WACCI's role

Coordinating unit  
Resource mobilisation  
Education & Training  
Research

Private  
industry

Research  
institutions

VIL

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graph TD; VIL((VIL)) --> Gov[Government agencies]; VIL --> Ind[Private industry]; VIL --> Res[Research institutions];
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# VILs objectives

- **domesticate** and bring into modern agricultural systems, a number of selected AIVs
- increase **farmers' access to quality vegetable seeds** in WCA
- increase the **productivity, adaptability and quality** of selected cultivated vegetables in WCA through modern breeding approaches
- enhance **human capacity** in vegetable breeding, **production, processing and marketing**



# VILs objectives

- **create a platform** for engaging the drivers of the value chain, both **public and private stakeholders**, in discussions for sustainable production and marketing of vegetables
- establish an electronic **knowledge based platform** for sharing information and resources
- influence **policy for research and development** of vegetables in the sub-region

# Our vision

**Strategic Partnerships**  
**Education & Outreach**  
**Cutting-Edge Research**  
**Climate Resiliency**  
**Food & Nutritional Security**



*“improve food and nutritional security in WCA through increased utilisation of indigenous and cultivated vegetables”*

*- Prof. Eric Danquah, Director WACCI*

## Thematic Areas

- Genetic Improvement
- Vegetable Production and Quality
- Processing
- Value Chains & Socio-Economic Research
- Policy Research
- Knowledge Management Systems



# Genetic Improvement

- Development of heat tolerant, high yielding and consumer-acceptable tomato varieties for off-season production in Ghana

**Dr. Agyemang Danquah**, Department of Crop Science, UG

- Tomato genetic improvement for enhanced yields under salt and osmotic stresses

**Dr. John Eleblu**, Biotechnology Centre, UG

- Genetic analyses of productivity traits in tomato for improved adaptation to low input production conditions

**Leander Dede Melomey**, WACCI PhD Student & **CRI**

# Genetic Improvement

- Germplasm assemblage & management and Vegetable museum at the WACCI farm for short-term programmes, teaching, learning and research

## **WACCI** and others

- Demand-led Vegetables breeding (Tomato, Africa eggplant & chinensis pepper); PhD and MPhil training

## **WACCI, Rijk Zwaan Afrisem & WUR Plant Breeding**

- Multi-locational trials of the hybrids of some selected vegetables

## **Robert Berlin, SFSA & CRI**

# Value Chains & Socio-Economic Research

- Ghana tomato value chain preliminary study report: Gaps and key considerations to revamp the tomato industry

**Dr. Irene Egyir**, Ministry of Finance/Dep't of AgEcons & Agribusiness, UG

- Vegetables product profiling

**WACCI, GhanaVeg & Syngenta Company**

- Tomato market research

**WACCI & SFSA**

# Partnering institutions

- Department of Crop Science, UG
- Forest and Horticultural Research Centre (FOHREC), UG
- Department of Agricultural Economics and Agribusiness, UG
- Institute of Applied Science and Technology (IAST), UG
- Crops Research Institute (CSIR), Ghana
- Horticulture Innovation Laboratory, UC Davis
- Seed Biotechnology Centre, UC Davis, USA
- AVDRC - The World Vegetable Centre
- African Orphan Crops Consortium (AOCC)
- Syngenta Company
- Rijk Zwaan Afrisem

# Expected output/outcomes

- Availability of seeds of new varieties from a range of AIVs and cultivated vegetables.
- Availability of indigenous vegetable production packages
- Availability of a series of advisory leaflets, production handbooks, manuals and publications in peer reviewed journals.
- Enhanced human capacity for vegetable breeding, production and protection in WCA
- Database for accessing information on vegetables
- Platform for engagement of stakeholders in the vegetable value chain
- Enhanced food and nutritional security in WCA

