

AATF facilitates access and delivery of technologies



1. StrigAway Seed Treatment Technology



- **Under Striga Control Project, AATF spearheaded a PPP initiative involving CG Centres, SeedCos, and NGOs**
- **StrigaAway is a twin technology based on classical breeding and low-dose herbicide application**
- **IR maize varieties were tested, released and adopted by farmers in Kenya, Uganda, Tanzania**

Partners: AATF, CIMMYT, BASF, SeedCos, NGOs and CBOs

2. Technologies for Nutrient Use Efficiency

Goal: To develop and disseminate farmer preferred and locally adapted rice varieties with enhanced Nitrogen-Use Efficiency, Water-Use Efficiency and Salt Tolerance (NEWEST)

Results of Trials Conducted at 2 Nitrogen Fertilizer Levels: 0Kg N/ha and 90Kg N/ha



Delta% compared to controls	Year 2017-18	
	Drought	Well-watered
Controls (g/plant) *	3.1	32.1
NEWEST-2	32%	18%
NEWEST-6	75%	26%
NEWEST-12	69%	24%

* Control yield is the average yield of wild type Nerica 4 and NEWEST bulked sibling null



➤ GM NEWEST Rice gave 32–75% yield advantage relative to Non-GM (NERICA 4) Rice



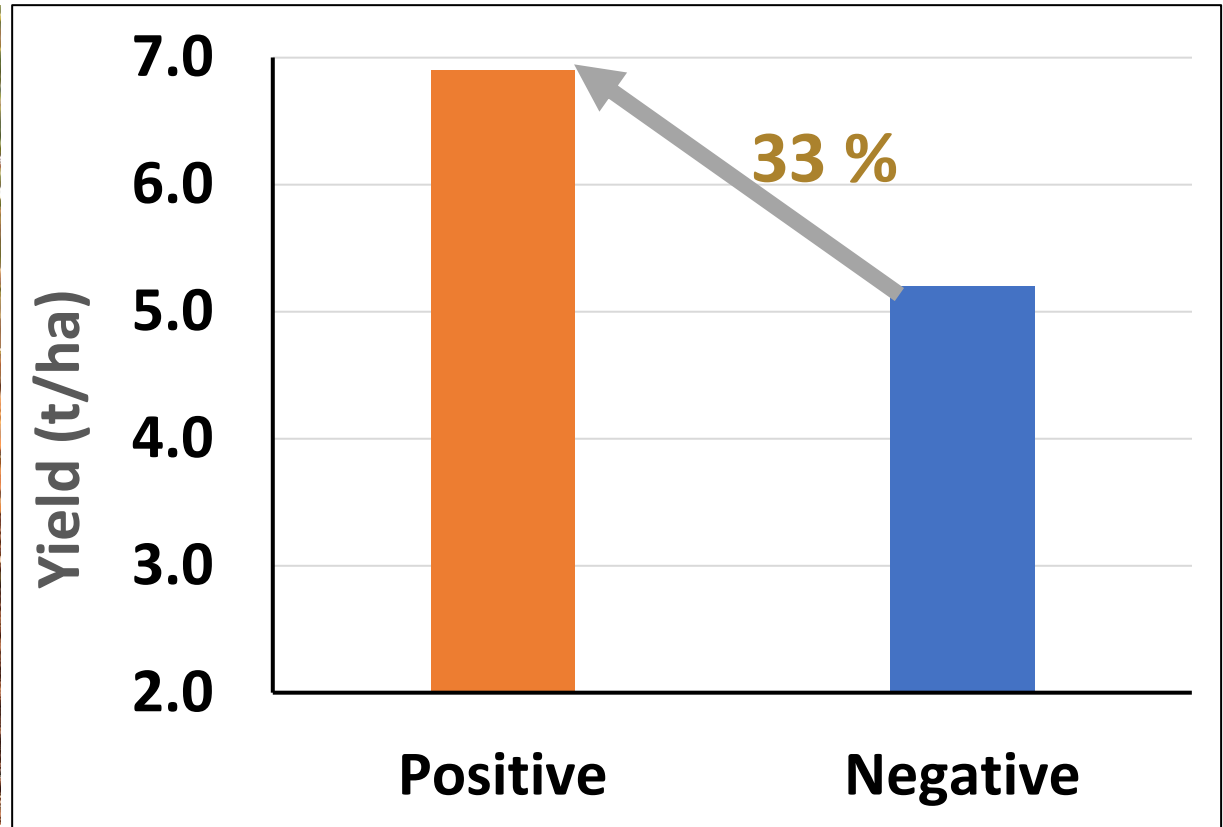
3. Delivery of climate-smart, Insect Resistant Maize Varieties



- Over 300 Million people depend on maize in Africa
- Frequent droughts lead to reduced productivity, loss of investments; and food *insecurity*
- Estimated maize annual yield losses by FAW of 8.3–20.6 million tons (USD 2.48 – 6.19 billion)



3...Combined Results of TELA maize under Stem borer and FAW pressure



4. Delivery of Insect Resistant Cowpea

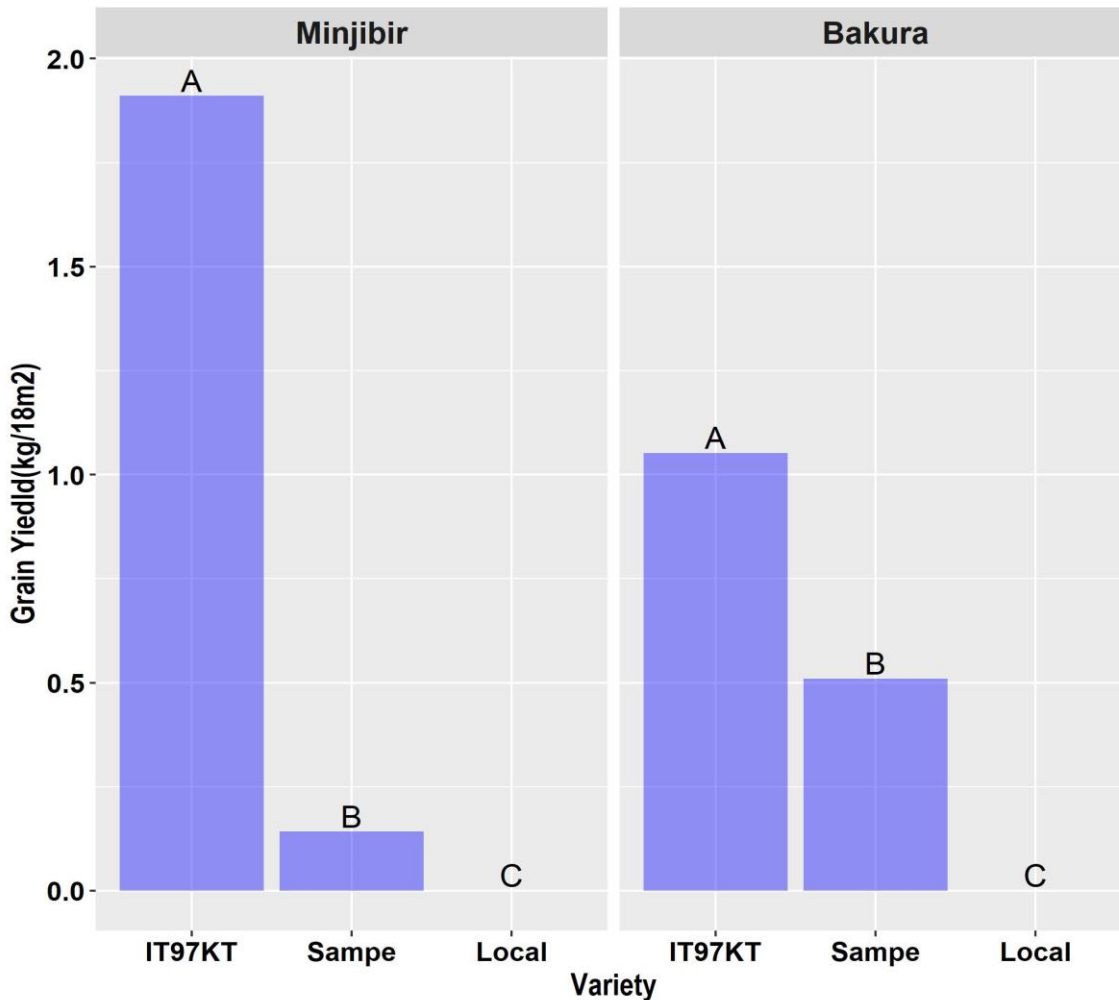
- **SSA accounts for >95% world cowpea production; Main protein source for low income households – “Nama talakawa”**
- ***Maruca* Pod borer is most important field pest of cowpea in SSA; destroys growing points, flower buds, flowers and pods, causing up to 80% yield loss**
- **Repeated use of insecticides (5–10 sprays) in many localities with limited control**
- **Multi-partner initiative was launched in 2004 to develop PBR Cowpea**



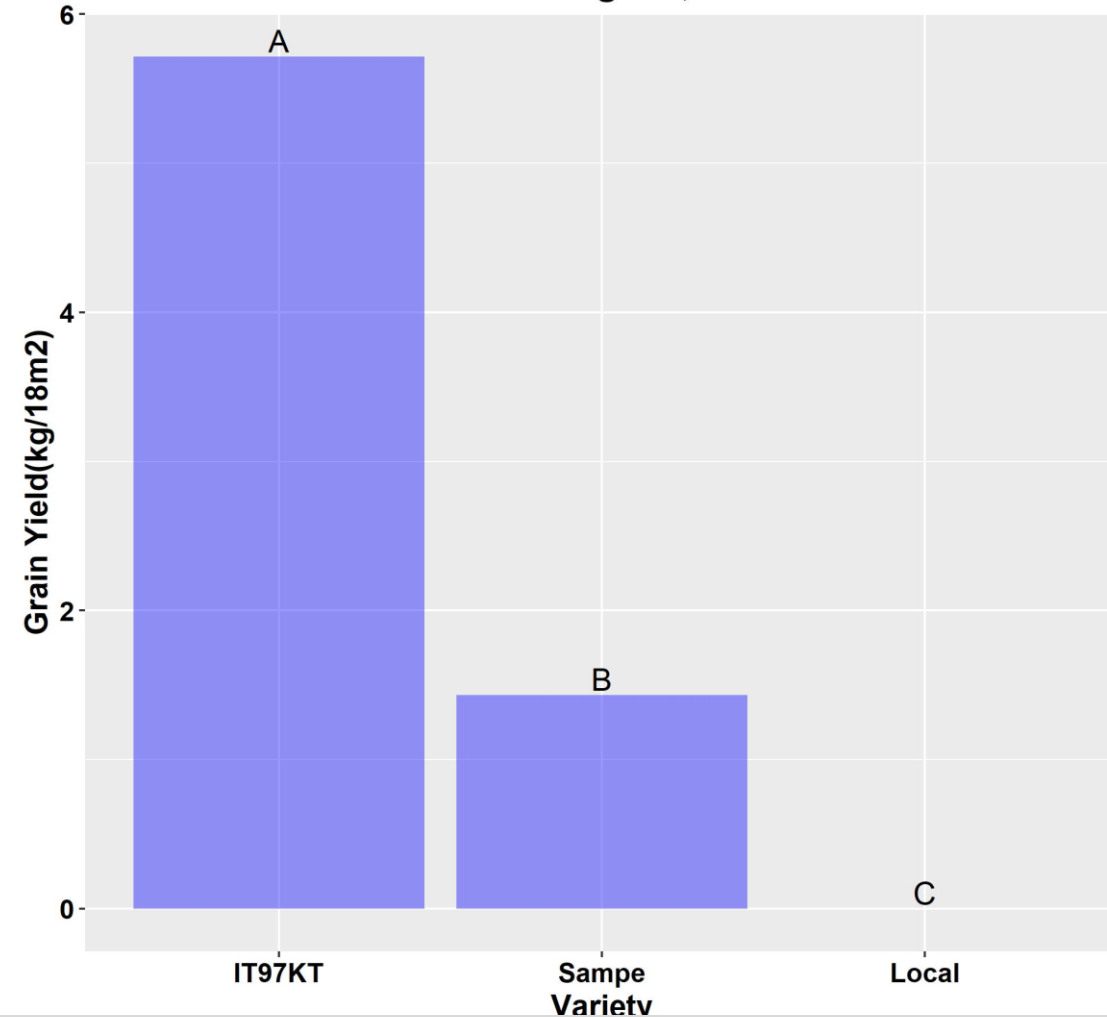
Partners: AATF, USAID, Bayer, CSIRO, NGiCA, NARS and SeedCos

4...Results of Confined 6 Farmer-managed Agronomic Trials

Performance of PBR Cowpea at the sites of Bakura and Minjibir in Nigeria



Performance of PBR Cowpea at the site of Zaria in Nigeria, 2017



- ❖ PBR Cowpea was 13x Higher than non-PBR cowpea (Sampea variety) in Minjibir
- ❖ PBR Cowpea was 2–4x Higher than non-PBR cowpea (Sampea variety) in Bakura and Zaria



4....Agronomic Performance of PBR Cowpea On-Farm



❖ PBR Cowpea (SAMPEA 20-T) Approved for Commercialization in 2019*; farmers to grow in 2021

Conclusions

- During the past decade, AATF and partner institutions have tested and demonstrated promising technologies to improve crop productivity in Africa
- More effort is required out-scale and commercialize these technologies for uptake by farmers
- **AATF has prioritized commercialization and expansion of technology portfolio encompass Digital Agriculture, AI, UAVs and other emerging innovations**

THANK YOU!

Email: f.nangayo@aatf-africa.org