

# Golden maize: High provitamin A maize varieties

Nutrition-boosting, income-enhancing maize.

These maize varieties have distinctive orange kernels, a result of high beta-carotene content. They are developed through advanced breeding techniques, combining naturally provitamin A enriched lines from Central and South America with elite land races and hybrid lines with improved agronomic traits.



**African Agricultural Technology Foundation (AATF)**

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Technology from

ProPAS

Commodities

Maize

Sustainable Development Goals



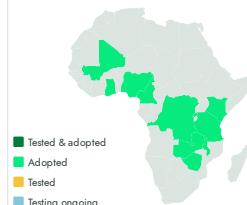
Categories

Production, Improved varieties, Yield improvement, Quality improvement

Best used with

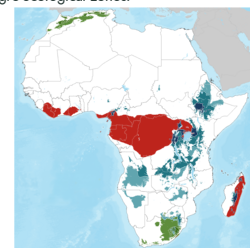
Drought Tolerant Maize Varieties and Water Efficient Maize Varieties, Pre-plant blended fertilizers and nitrogen topdressing for maize, Maize-legume rotation and...  
See all 3 technologies online


Tested/adopted in




Where it can be used

This technology can be used in the colored agro-ecological zones.




 This technology is **TAAT1 validated**.


 7-7

 Scaling readiness: idea maturity 7/9; level of use 7/9

## Project adoption

The technology has been integrated into the **ENSURE project** in East Africa and scaled through the **EFPP, PADCV-PTA, and PUPSAN projects** in West and Central Africa.

Inclusion assessment  4

Climate impact  4

## Problem

- Significant population, including children and adults, faces preventable blindness and weakened immune systems due to insufficient vitamin A levels.
- Increased susceptibility to diseases such as measles, diarrhea, and respiratory infections.
- Common maize varieties lack vital vitamins and minerals, contributing to widespread malnutrition.
- 50% of children aged 0.5 to 5 years are at risk of vitamin A deficiency, leading to severe health complications and diminished quality of life

## Solution

- Provitamin A enriched maize varieties provide a stable source of essential nutrients, combating deficiencies.
- Preservation of beta-carotene ensures a consistent supply of vitamin A.
- Genomic modification maintains nutrient content without compromising yield.
- Cost-effective approach for regions heavily reliant on maize.
- Tailored to meet nutritional needs, providing a significant portion of daily vitamin A requirement.
- Accessible and adaptable for diverse farming systems.

## Key points to design your program

Golden maize varieties are rich in beta-carotene, offering a powerful solution to combat malnutrition while improving agricultural productivity.

- Aligned with SDG 2, SDG 3, and SDG 13, they contribute to food security, better health, and climate resilience.
- Part of the Maize Innovation Toolkit, they work alongside technologies like precision fertilizer application to maximize productivity and farmer income.
- Golden maize varieties have been introduced in **Burundi, DR Congo, Kenya, Rwanda, South Sudan, Tanzania, and Uganda** as part of the **Country engagement missions** through the **Enabling Sustainable Regional Agricultural Extension (ENSURE) project**.



Open source / open access



Golden maize

<https://taat.africa/dvn>

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