

# Long Peppers Varieties Resistant to Diseases

Strong Against Disease, Hot on the Market.

This group of farmer-friendly long varieties combines yield stability, disease resistance, and adaptability to heat and drought. Developed by the World Vegetable Center, it produces 6.8–18.01 t/ha yield potential over 10 harvests in 70–85 days and thrives under low-input conditions. Its open-pollinated nature makes it accessible and scalable, well-suited for climate-smart, nutrition-sensitive, and inclusive rural development programs.



**World Vegetable Center**  
Derek Barchenger

Commodities

Chili peppers

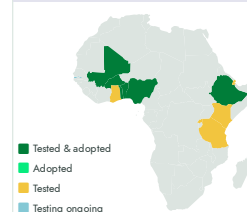
Sustainable Development Goals



Categories

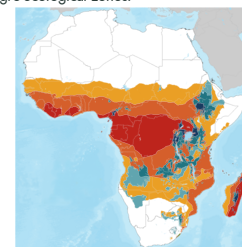
Production, Improved varieties, Disease resistance, Yield improvement

Tested/adopted in



Where it can be used

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



Target groups

Breeders, Farmers, Seed companies, Sellers

This technology is **pre-validated**.

7-8



Scaling readiness: idea maturity 7/9; level of use 8/9

Inclusion assessment

4

Climate impact

7

## Problem

- **Women and youth farmers face high risks** from climate stress and crop failure.
- **Lack of scalable, resilient varieties limits the impact** of development programs.
- **Pesticide overuse harms health** and sustainability efforts.
- **Few technologies close gender gaps** in access and productivity.
- **Climate-smart, field-tested varieties remain scarce.**

## Solution

- **Disease resistance cuts pesticide use**, supporting health and sustainability.
- **High yield and resilience** boost impact in nutrition and income programs.
- **Low input needs** make it suitable for women and youth farmers.
- **Freely available and proven**, ideal for donor-supported programs.
- **Fits climate-smart farming**, with visible results in the first season.

## Key points to design your program

These improved cayenne pepper varieties tackle declining yields, disease outbreaks, and pest infestations, achieving up to 18.01 tons per hectare per year. They support SDG 2 (food security), SDG 5 (women's empowerment), and SDG 13 (reduced chemical inputs). Best results come from integrated pest management, balanced fertilization, efficient irrigation, and proper post-harvest handling (including Zero Energy Cooling Chambers). Ideal for programs boosting farmer incomes and resilience, partnering with the World Vegetable Center or local institutes ensures successful adoption.

Cost: \$\$\$ **2336 USD**

All production cost for 1 hectare

ROI: \$\$\$ **up to 434 %**

over 10 harvests

**6.8–18.01**  
t/ha over 10  
harvest

**70–85 days**  
Days to Maturity after  
Transplanting

**Officially  
released in  
Benin in  
2025**

**12 939 USD**  
Total revenue



Open source / open  
access



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<https://taat.africa/nfv>

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