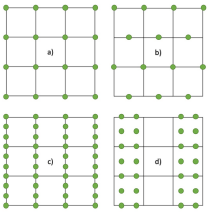
Spacing and Stand Management in Banana and Plantain

Optimized Spacing, Maximum Yield

This technology optimizes banana and plantain plant spacing to boost yield, considering factors like plant variety, climate, and soil fertility. It uses various planting systems and may require herbicide use and stem base "earthing-up" in windy areas.



Planting layouts: a) square, b) triangular, c) single row, and d) paired row

International Institute of Tropical Agriculture (IITA)
Godfrey Taulya

This technology is TAAT1 validated.

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

100 t/ha/year
Dwarf Cavendish planted at 2500 to 4400 plants per ha

IP
Open source / open access

Problem

- High plant densities cause uneven growth, delayed maturity, and increased labor.
- Low densities lead to weed competition and yield variability.
- Unmanaged stands accumulate pests and diseases.
- Insufficient wind protection damages plants.

Solution

- Proper spacing promotes uniform growth, reduces labor, and optimizes yield.
- Adequate spacing minimizes resource competition and maximizes sunlight exposure.
- Square block planting provides wind protection.
- Spacing aids in weed management and pest/disease control.

Key points to design your business plan

Here are practical steps a farmer can take to incorporate the Spacing and Stand Management technology in Banana and Plantain farming:

- **Training**: Learn about Spacing and Stand Management technology.
- **Assessment**: Evaluate your farm's soil, drainage, and sunlight exposure.
- **Variety Selection**: Choose a banana or plantain variety suitable for your farm and market.
- **Land Preparation**: Clear land, dig planting holes, and fortify with organic materials.
- **Planting**: Plant suckers in prepared holes. Spacing depends on the variety.
- **Maintenance**: Monitor plants, manage weeds, apply fertilizers as needed.
- **Harvesting**: Harvest mature bananas and plantains carefully.

Consult local agricultural services or the technology provider for support.

Gender assessment 3

Climate impact 7

Technology from

ProPAS

Commodities

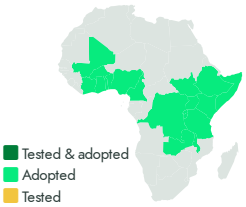
Banana/Plantain

Sustainable Development Goals

Categories

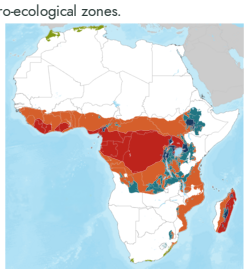
Production, Practices, Yield improvement

Tested/adopted in



Where it can be used

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



Target groups

Farmers