

BANANA

Lifting Pressure on Production in the Philippines

Non-GMO, Non-Chemical, Non-Pesticides

A Cellular Regeneration Biotech with HQ in Singapore

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LIFTING INCOME BRACKET

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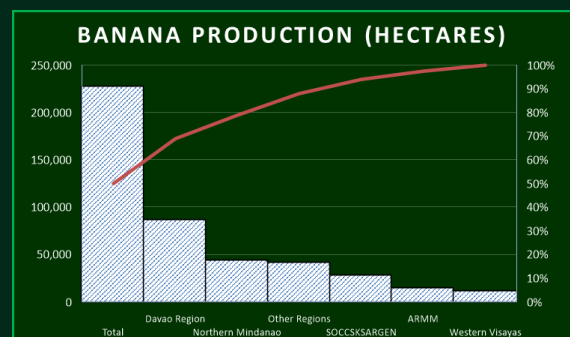
Fieldwork by ChongMing

ECONOMICS OF BANANA

Banana farming is a significant economic activity in the Philippines, contributing to both local livelihoods and the national economy. Key aspects of the economics of banana farming comprised i) production costs, ii) yield and revenue, iii) market dynamics, iv) economic impact, v) challenges and vi) government support.

The Davao region took on the leadership role in cavendish banana production, at 54 MT/ha (da.gov.ph).

In this issue, we look into solutions to lift yield and revenue, addressing challenges in the Philippines for lifting income bracket.



MEASURING UP

Producing high-quality bananas involves implementing several good agricultural practices (GAP) that ensure sustainability, productivity, and fruit quality. Here are some key practices and the importance of raising soil carbon content:

Soil Management

- **Soil Testing:** Regular soil testing to determine nutrient levels and pH.
- **Organic Matter:** Incorporating organic matter such as compost or green manure to improve soil structure and fertility.
- **Cover Crops:** Using cover crops to prevent soil erosion and enhance soil organic matter.

Planting

- **Quality Planting Material:** Using disease-free, high-quality plantlets or tissue-cultured plants.
- **Optimal Spacing:** Ensuring proper spacing to allow adequate sunlight and air circulation.

Irrigation

- **Efficient Water Use:** Implementing drip irrigation or other water-saving techniques to ensure consistent moisture levels without waterlogging.

Fertilization

- **Balanced Fertilization:** Applying the right balance of macro and micronutrients based on soil test results.
- **Organic Fertilizers:** Using organic fertilizers to improve soil health and reduce chemical inputs.

Pest and Disease Management

- **Integrated Pest Management (IPM):** Combining biological and cultural methods to manage pests and diseases.

GROWING GIANTS

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| PER 1,000 ACRES BANANA PLANTATION | | | | | |
|-----------------------------------|-----------------|-------------|-----------------|--------------|--------------------------|
| Time to Flowering | Time to Harvest | # Hands (%) | Size Per Banana | Yield | Additional Profits (USD) |
| No Change | Minus 10 Days | Min +110% | +128% | +149 to 179% | +15 to 51 M |

| 10 YEAR CUMMULATIVE ROI PER 1,000 ACRE (USD) |
|--|
| + 150 to 510M (Against 30MT/Acre Baseline) |

- **Regular Monitoring:** Conducting regular field inspections to detect and manage issues early.

Harvesting and Post-Harvest Handling

- **Proper Harvesting Techniques:** Harvesting bananas at the right maturity stage to ensure quality.
- **Post-Harvest Handling:** Proper handling, packaging, and storage to maintain fruit quality and reduce losses.

PERFORMANCE

The natural drought and chill/frost resistance in [\[ISSUE 1\]](#) and [\[ISSUE 4\]](#) is carried into banana farming, by speeding up plant metabolism through the soil microbiome, delivering nutrients in small pockets on a weekly soil + foliar spray regime over a period of 7.5 months, across i) vegetative, ii) fruit development and iii) harvest phases.

By building up complex carbohydrates in the plant, banana plantations are naturally feeding insects free consistent with [\[ISSUE 2\]](#) and [\[ISSUE 5\]](#).

CONCLUSION

A profitable, climate resilient and vertically integrated banana farming solution becomes available.