



Shoot Production of Machiku Bamboo (*Dendrocalamus latiflorus*) as Affected by Different Management Practices



S&T in Natural Resources

Mylene R. Ermitanio^{*1}, Froilan A. Pacris Jr.², Gladys O. Dalmaceda¹ and Romar R. Banadero³

¹College of Agriculture, Cagayan State University, Gonzaga Campus, Gonzaga, Philippines

²Campus Executive Officer, Cagayan State University, Gonzaga Campus, Gonzaga, Philippines

³Dean, College of Agriculture, Cagayan State University, Gonzaga Campus, Gonzaga, Philippines

Corresponding Author: ermitaniomylene@csu.edu.ph

Key Findings and Policy Implications

- Pruning old bamboo stems and clumps, along with watering, fertilizing, and mulching, helps bamboo grow more shoots than using any method alone.
- Shoots grown this way are bigger and heavier, meaning better quality from Machiku bamboo.
- This method makes shoots appear faster, so farmers can harvest more often and save time.
- Using all these management practices helps farmers grow more bamboo and earn more money.
- Growing bamboo like this is good for the environment and supports local economies.
- It is very important for the government to help

farmers or bamboo growers learn and use these better bamboo-growing methods to maximize the bamboo shoot yield.

Background

Machiku (*Dendrocalamus latiflorus*), an invasive species, is well-known around the world for producing vegetables (shoots). It was discovered that this species produced the tastiest bamboo shoots and was regarded as having the sweetest shoots of all the bamboo species.

Aside from its use as food, Machiku bamboo culm or pole is perfect as a low-cost material source for housing and construction, scaffolding, furniture, handicraft, banana props, fish pens, agricultural implements, pulp and paper manufacturing, toys, industrial products like bamboo tiles and ply board, and many other things.

However, inefficient management practices lead to suboptimal shoot production, limiting economic and environmental benefits.

Research Objectives

- Evaluate the effects of different management techniques on Machiku bamboo shoot production.
- Identify the most effective practice for maximizing shoot yield and quality.
- Provide data-driven recommendations for sustainable bamboo farming.

Methodology

The study was conducted along the Tabungao Farmers Irrigation System at the Bamboo plantation of Cagayan State University - Gonzaga Campus, Philippines. Researchers tested four different methods to see how they affected bamboo shoot growth and yield (number, length, weight) as well as emergence of bamboo shoots.

Forty eight (48) clumps of bamboo with three (3) blocks were applied with different management practices. In each block there were 16 bamboo clumps planted.

Four treatments tested were:

T1: Standard practice (control)

T2: Pruning only

T3: Pruning + fertilization

T4: Pruning + fertilization + watering + mulching

Key Findings



- T4 produced the highest shoot yield, demonstrating that integrated management is the most effective approach.
- Shoots from T4 were longer and heavier, indicating improved quality.
- Faster shoot emergence was observed in T4, leading to a more efficient harvest cycle.

Conclusion

After conducting an in-depth study on the patterns of intimate partner violence and the chronic psychosocial enormities experienced by battered women, it is evident that this issue requires urgent attention and comprehensive intervention strategies. The research has highlighted the pervasive nature of intimate partner violence, its detrimental impact on the mental and emotional well-being of victims,

Policy Recommendations

Promote Integrated Management

Encourage bamboo farmers to implement pruning, fertilization, watering, and mulching.

Training and Extension Services

Provide capacity-building programs for bamboo growers.

Further Research

Conduct continuous studies to refine bamboo farming techniques.

Target Policy Actors and Beneficiaries



Management Practices” This project was implemented by the Cagayan State University – Gonzaga Campus. The CSU – Gonzaga Campus project team is composed of Mylene R. Ermitanio, Froilan A. Pacris Jr., Gladys O. Dalmaceda and Romar R. Banadero.

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Editor's Note

This policy brief is based on results of the CSU-funded project “Shoot Production of Machiku Bamboo (*Dendrocalamus Latiflorus*) as Affected by Different



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