

ORGANIC SWEET CORN CULTIVATION AS A PATHWAY TO SUSTAINABLE LIVELIHOOD

(The Success Story of Mr. Aiber Mawlong of Ri-Bhoi, Meghalaya)

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INTRODUCTION

Agriculture plays a vital role in sustaining the livelihoods of rural communities in Meghalaya. However, farmers often face challenges such as inadequate access to quality seeds, poor market connectivity, lack of mechanization and limited technical knowledge, which restrict agricultural productivity and profitability. The introduction of improved crop production technologies, supported by scientific guidance and institutional interventions, has the potential to transform traditional farming into a sustainable and income-generating enterprise.

The success story of Mr. Aiber Mawlong, a progressive young farmer from Rtiang village of Ri-Bhoi district, Meghalaya, highlights how the adoption of scientific cultivation of sweet corn under organic management significantly enhanced his farm productivity, diversified his farming system and improved the socio-economic condition of his family.

Profile of the Farmer

Mr. Aiber Mawlong is a 30-year-old graduate (B.A.) belonging to the Scheduled Tribe (ST) community of Rtiang village in Ri-Bhoi district, Meghalaya (Latitude: 25.76° N; Longitude: 91.89° E). He lives with his family of seven members and owns 3.24 hectares of agricultural land.



Before adopting improved sweet corn cultivation, he primarily cultivated rice, vegetables and conventional maize while maintaining poultry, piggery and duck farming as subsidiary enterprises. His annual family income was approximately Rs. 90,000, generated mainly from agriculture, poultry and piggery.

Rtiang village comprises around 110 households with a population of 677 and has a literacy rate of 81.61%. The area falls under the Subtropical Hill Zone, characterized by a humid subtropical climate, annual rainfall of about 2,935 mm, and temperatures ranging from 10°C to 30°C, making it highly suitable for the cultivation of organically grown sweet corn.



Challenges before technology adoption

Prior to the intervention, Mr. Mawlong faced several production and marketing constraints that limited farm profitability.

The major challenges included:

- i. Lack of organized market facilities.
- ii. Limited mechanization for farm operations.
- iii. Non-availability of quality seed and production inputs.
- iv. Pest and disease problems.
- v. Low crop productivity and poor economic returns.

These limitations resulted in increased production costs, lower farm income and reduced livelihood security despite the favourable agro-climatic conditions of the region.

Technology intervention

To address these challenges, the AICRP on Maize, College of Agriculture, Kyrdemkulai, CAU (Imphal) introduced scientific cultivation of sweet corn under organic management during 2024.

Mr. Mawlong participated in awareness programmes, farmer interaction meetings and field demonstrations organized by the project. He also attended training programmes conducted in June 2024, where he received practical knowledge on improved sweet corn production technologies.

The project supplied quality sweet corn seed free of cost along with biopesticides, while organic fertilizers were sourced locally. Scientists and technical staff provided continuous guidance from land preparation to harvesting through regular field visits and demonstrations.

The recommended package of practices included:

- i. Scientific land preparation.
- ii. Use of quality seed.
- iii. Seed treatment before sowing.

- iv. Timely sowing.
- v. Organic nutrient management.
- vi. Integrated pest management using biopesticides.
- vii. Regular crop monitoring and scientific harvesting.

Mr. Mawlong adopted the complete package of practices without any modification, finding it simple, practical and well suited to the local farming conditions.

Motivating factors

Several factors encouraged him to adopt the improved technology:

- i. High and growing demand for organically produced sweet corn.
- ii. Availability of quality seed and technical guidance from the College of Agriculture, Kyrdemkulai.
- iii. Demonstrated success of field demonstrations conducted under the AICRP on Maize.
- iv. Opportunity to substantially increase farm income while maintaining environmentally sustainable farming practices.

Impact of technology adoption

The adoption of scientific sweet corn cultivation under organic management brought significant improvements in farm productivity and profitability.

The productivity increased from 1,400 kg/ha under conventional maize cultivation to 1,850 kg/ha under sweet corn cultivation. Yield also increased considerably, while farm income from the enterprise rose dramatically from Rs 11,333 to Rs 97,295, making sweet corn one of the most profitable crops on the farm.

The increased earnings enabled Mr. Mawlong to expand his cultivated area by 0.20 hectare and purchase additional farm tools that improved operational efficiency. He also significantly expanded his

integrated livestock enterprises. His poultry flock increased from 30 to 100 birds, piggery from one to six pigs, and duck population from two to seven, creating multiple sources of income and strengthening the resilience of the farming system.

The sweet corn enterprise generated a remarkable Return on Investment (ROI) of 500%, clearly demonstrating the economic superiority of scientific organic sweet corn cultivation over conventional maize production.

Improvement in livelihood

The adoption of improved technology substantially enhanced the family's financial stability and quality of life. Increased farm income enabled better household expenditure on nutrition, education and farm development. Investment in livestock and farm tools further diversified income sources and reduced dependence on a single enterprise. The successful cultivation of sweet corn also increased Mr. Mawlong's confidence and strengthened his commitment to farming as a profitable and sustainable livelihood.

Recognition and leadership

The outstanding performance of Mr. Mawlong's sweet corn enterprise attracted the attention of neighbouring farmers and extension personnel. His farm has become an important demonstration site where farmers observe the benefits of scientific organic cultivation.

Through participation in farmer meetings, field demonstrations and informal interactions, he actively shares his experiences and motivates fellow farmers to adopt improved sweet corn production technologies. His achievements have enhanced his reputation as a progressive farmer within the community.

Lessons learned

The experience demonstrates that scientific cultivation of sweet corn under organic management can significantly improve the profitability of farming in Meghalaya when supported by quality seed, technical guidance and institutional support.

Nevertheless, sustained success will require timely availability of organic inputs, improved mechanization and stronger market linkages. Continued extension support and regular capacity-building programmes remain essential for maximizing the benefits of the technology.

Future scope

To further enhance the adoption and impact of the technology, the following interventions are recommended:

- i. Strengthening market linkages for organic sweet corn.
- ii. Ensuring timely supply of quality seed and organic production inputs.
- iii. Promoting small-scale mechanization suitable for hill agriculture.
- iv. Organizing regular training programmes and field demonstrations.
- v. Encouraging farmer groups and producer organizations for collective marketing and value addition.

CONCLUSION

The success of Mr. Aiber Mawlong clearly demonstrates that scientific cultivation of sweet corn under organic management can transform traditional farming into a profitable, sustainable and resilient enterprise. With continuous technical guidance, quality input support and capacity-building efforts provided by the AICRP on Maize, College of Agriculture, Kyrdekulai, CAU (Imphal), he successfully enhanced crop productivity,

increased farm income and diversified his livelihood through integrated farming. His journey serves as an inspiring example for other farmers in Meghalaya, particularly rural youth, illustrating how scientific interventions combined with institutional support can create sustainable livelihood opportunities while promoting environmentally friendly agricultural practices.

The technology is simple, economically viable and highly replicable, making it an ideal model for widespread adoption across the North Eastern Hill Region.
