



**Biotica
Research
Today**

Vol 2:11 **1154**
2020 **1156**

Baby Corn – A New Venture of Income to the Farmers of Tripura

Gulab Singh Yadav^{1,2*}, Subhash Babu²
and Anup Das¹

¹ICAR-Research Complex for NEH Region, Tripura Centre,
Lembucherra, Tripura (799 210), India

²ICAR-Indian Agricultural Research Institute, Pusa, New
Delhi, Delhi (110 012), India

Open Access

Corresponding Author

Gulab Singh Yadav
e-mail: gulab.iari@gmail.com

Keywords

Crop diversification, High value crop, Profitability, Tripura

Article History

Received in 19th November 2020

Received in revised form 21st November 2020

Accepted in final form 22nd November 2020

E-mail: bioticapublications@gmail.com

How to cite this article?

Yadav *et al.*, 2020. Baby Corn – A New Venture of Income to the Farmers of Tripura. *Biotica Research Today* 2(11): 1154-1156.

Abstract

The economy of Tripura mainly depends on agriculture which provides livelihood as well as productive engagement to the majority of the population. The agro-climatic conditions of the state provide ample scope for crop diversification and cultivation of short duration baby corn year round, can pave a way for a better economy. In India, baby corn is emerging as a potential remunerative crop among the progressive farmers. Now there is need to explore its potential in Tripura. The potential of baby corn is tested in Tripura with the initiative of ICAR, Tripura Centre. Baby corn variety HM-4 was tested at ICAR Tripura centre and the cultivation of baby corn before *aman* rice (during summer) was much more profitable than any other crops.

Introduction

Baby corn cultivation, being a recent development, has proved an enormously successful venture in countries like Thailand and Taiwan. Attention is now being paid to explore its potential in India, for earning foreign exchange besides higher economic returns to the farmers. In India, baby corn is emerging as a potential remunerative crop among the progressive farmers (Singh *et al.*, 2020). Now there is need to explore its potential in Tripura (Yadav *et al.*, 2018). It is interesting to know that these tiny corn cobs are not genetically mutant dwarf ears of corn but are just immature ears of regular corn. Baby corn is typically eaten whole, in contrast to mature maize, whose cob is too hard for human consumption. Almost all commercial baby corn is imported from the countries with low labour costs as harvesting and de-husking are done manually. Tripura being rich in availability of cheap labour has a great potential for its production and export.

Nutritive Value of Baby Corn

Baby corn is one of the cheap and potential sources of nutritional security to the poor farmers of India. The nutritional quality of baby corn is at par or even superior to some of the seasonal vegetables (Babu *et al.*, 2020). It is rich in proteins, vitamins and iron. It is also one of the richest sources of phosphorus (Table 1). It is rich in fibrous protein and easy to digest. Therefore, it is extensively used in baby foods. Besides that baby corn is considered to be a safe vegetable as it is almost free from residual effects of pesticides because the young corn cobs are wrapped up with husk and well protected from insect pest damage.

Advantages of Baby Corn

The cultivation of baby corn offers several advantages to the grower. Some advantages of baby corn cultivation given below:

Table 1: Nutritional composition of baby corn on dry matter basis (approx.)

Particulars	Composition of baby corn
Moisture (g/ 100 g)	7.37
Crude protein (g/ 100 g)	10.04
Crude fat (g/ 100 g)	4.43
Crude fibre (g/ 100 g)	2.40
Ash (g/ 100 g)	1.34
Total carbohydrates	81.97
Energy (Kcal/ 100 g)	375.67
Total soluble sugars (g/ 100 g)	0.14
Calcium (mg/ 100 g)	17.76
Phosphorus (mg/ 100 g)	197.89
Iron (mg/ 100 g)	2.73

• **Diversification:** It is very short duration crop, mature about 50-55 days after sowing for market purpose. Therefore, crop is fit for all the cropping system for enhancing the cropping intensity and farmer's income. Besides that, farmer can grown baby corn round the year.

• **Employment Generation:** The crop has both industrial and export importance. Therefore, it provides employment in the form of cultivation, marketing, processing and export.

• **Earning Money in Short Span of Time:** Generally, farmers have to wait for a longer time for the income from their crops. Being a short duration crop, farmers can earn money in the shortest possible time.

• **Export Potential:** Baby corn has an immense demand in the global market. The foreign exchange can be earned by exporting baby corn and its products.

• **Quality Fodder:** Quality and nutritious green fodder obtained after the harvesting of baby corn can be used as a feed to the livestock throughout the year. Tripura has huge shortage of green fodder during winter season, baby corn has potential to overcome green fodder problem during the lean period.

• **Value Addition:** Baby corn has great potential in value addition. Value addition of baby corn is possible through preparation of several recipes viz. soup, pakoras, salad etc.

• **Processing:** Baby corn can be processed to improve its shelf-life and round the year availability through processes such as canning, dehydration and freezing.

Selection of Suitable Varieties

Baby corn plays a significant role in ensuring livelihood security and augmenting income level of farmers in peri-urban areas (Babu et al., 2020). Short duration, prolific, single cross hybrids with medium height should be selected. Baby corn variety HM-4 is suitable hybrid for baby corn which

has performed well in sub-tropical areas of India. Also, hybrid variety Prakash and composite variety Kesari are appropriate varieties for taking baby corn crop. HM 4 possess all the desirable traits of an ideal baby corn hybrid. Its cultivation is gaining momentum in nearby areas of cities. This single cross hybrid has an attractive creamish to light yellow colour with desirable size of 6.0 to 11.0 cm in length and 1.0 to 1.5 cm in diameter with regular row arrangement. It is highly nutritive and sweet in taste. It has most desirable medium height plant type, lodging resistant, prolific, responsive to high dose of fertilizers and plant remains green after picking of baby corn. Three to four pickings are common. Green plants also provide quality fodder to livestock. Additional income is also obtained through intercropping with vegetables, pulses, flowers etc.

Results

Baby corn variety HM 4 was evaluated on ICAR Tripura Centre farm for their suitability in Tripura condition. The crop was sown on 28th April, 2014. A seed rate of 20 kg/ha was used and crop was sown at 50 cm × 20 cm spacing manually. A recommended dose of fertilizer 80 kg N, 20 Kg P₂O₅ and 40 kg K₂O were applied. The entire dose of P and K was applied at time of sowing. The N was applied in three split application. Half of N was applied at time of sowing and remaining was applied through two equal split doses at knee high and tasseling stages. The crop was grown after harvest of potato in groundnut – potato cropping system to the residual effect of phosphorus applied in groundnut-potato cropping system. The crop was ready for harvest of baby corn on 16th June, 2014, just 50 days after sowing (DAS). The ears are harvested (50 days after emergence) when the silks are 1-2 cm long, i.e., within 1-2 days after silk emergence. Harvesting is usually done in the morning when the moisture is high and the temperatures are low. The picking of baby corn is to be done once in three days and done a total of 5-6 pickings for harvesting the entire crop. Within fifty days crop period crop produced 3.7 tonnes/ha baby corn yield. Besides that the crop also produced 40.5 t/ha green fodder. The baby corn was sale @ Rs. 10.00 /kg through farm section and fodder was sale @ Rs. 100.00 /q to animal division. The cultivation of baby corn required about Rs. 25,000.00 /ha. Therefore, the cultivation of baby corn provides the net income to the farmers about Rs. 52,500.00 /ha, just in 50 days duration. Therefore, we say that the baby corn is new crop for upliftment of rural poor of Tripura, besides augmenting the dairy sector through supply of good quality fodder. Some photographs of crop and baby corn are given below.

Constraints in Its Adoption

Despite better economic returns and increasing market demand both in the national as well as international market; the cultivation of baby corn has not become popular in Tripura due to following reasons:

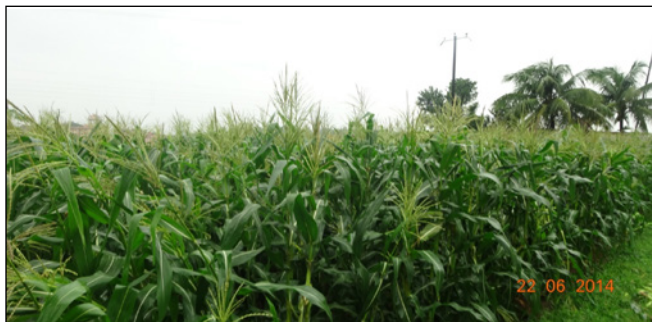


Figure 1: Baby corn crop in field



Figure 2: Baby corn with husk



Figure 3: Baby corn



Figure 3: Baby corn

- Not availability of sufficient quality seeds.
- Unawareness among the farmers about package of practices of baby corn cultivation.
- Lack of processing facilities and unawareness about the use of baby corn.
- Lack of marketing chain and infrastructure facilities in rural areas.

Conclusion

In India, baby corn is emerging as a potential remunerative crop among the progressive farmers. Now there is need to explore its potential in Tripura. Baby corn plays a significant role in ensuring livelihood security and augmenting income level of farmers in peri-urban areas. Baby corn is typically eaten whole, in contrast to mature maize, whose cob is too hard for human consumption. Short duration, prolific, single cross hybrids with medium height should be selected. Baby corn variety HM-4 is suitable hybrid for baby corn which has performed well in Tripura. The cultivation of baby corn took only fifty days. The picking of baby corn is to be done once in three days and done a total of 5-6 pickings for harvesting the entire crop. Within fifty days crop period crop produced 3.7 tonnes/ha baby corn yield. Besides that the crop also produced 40.5 t/ha green fodder. The cultivation of baby corn required about Rs. 25,000.00 /ha and provides the net income to the farmers about Rs. 52,500.00 /ha. Therefore, we say that the baby corn is new crop for upliftment of rural poor of Tripura, besides augmenting the dairy sector through supply of good quality fodder.

References

- Babu, S., Singh, R., Avasthe, R.K., Yadav, G.S., Das, A., Singh, V.K., Mohapatra, K.P., Rathore, S.S., Chandra, P., Kumar, A., 2020. Impact of land configuration and organic nutrient management on productivity, quality and soil properties under baby corn in Eastern Himalayas. *Scientific Reports*, 10(1), 1-14.
- Singh, R., Babu, S., Avasthe, R.K., Yadav, G.S., Das, A., Mohapatra, K.P., Kumar, A., Singh, V.K., Chandra, P., 2020. Crop productivity, soil health, and energy dynamics of Indian Himalayan intensified organic maize-based systems. *International Soil and Water Conservation Research*. <https://doi.org/10.1016/j.iswcr.2020.11.003>
- Yadav, G.S., Saha, P., Babu, S., Das, A., Layek, J., Debnath, C., 2018. Effect of No-Till and Raised-Bed Planting on Soil Moisture Conservation and Productivity of Summer Maize (*Zea mays*) in Eastern Himalayas. *Agricultural Research*, 7(3), 300-310.