



Baby corn is a new option growing in pre- Kharif

A.H. Nanher¹, Sachin Tyagi², Ashutosh Kumar Singh¹ and Shashidhar Yadav³

¹Department of Agronomy, Bihar Agricultural University, Sabour, BHAGALPUR (BIHAR) INDIA

²Department of Horticulture (Fruit and Fruit Technology), Bihar Agricultural University, Sabour, BHAGALPUR (BIHAR) INDIA

³Department of Agronomy, Rajendra Agricultural University, Pusa, SAMASTIPUR (BIHAR) INDIA

In India, it is estimated that maize demand will continue to increase because of its diversified uses and increasing population. To meet the growing demand, enhancement of maize yield in coming years across all the growing locations in India is a big challenge in the era of climate change. Corn or maize is highly versatile crop with high-yield and fast-growth. These characteristics make it suitable for wider use and production in the developing world. Developing countries considered maize as grain for the poor and greens for the animal. However, now-a-days tender and immature cobs of corn are being used as vegetable (proposed by Galinat, 1985). This novel use, known as baby corn (candle corn in Thai cook books), is becoming popular in domestic and foreign markets and has enormous processing and export potential. Domestic market for baby corn is growing due to the increase in number of farmers producing it. Its cultivation is popular in urban and peri-urban areas due to high market demand. Earlier, baby corn was a delicacy and its recipes were available only in star hotels and big restaurants. Now, it is becoming popular even among masses due to the revolution in information technology, increase in baby corn production and hence easy availability in the market. Thanks to the advent of one step shopping malls, where everything is available under one broad umbrella, which has also played its part in increasing the popularity of novel products including baby corn.



Characteristics and nutritional value of baby corn :

Baby corn is tiny, immature and unfertilized ears of corn from normal sized corn plants. Many people presume that it comes from dwarf corn plant. The miniature size is due to its early harvest at very immature stage (when silks are about to emerge or just emerged) and is not produced

on dwarf corn plant. Fresh baby corn is tender and miniature in size with crisp texture and slight sweet corn flavour. Baby corn is no longer a specialty food as it is locally produced and easily available in the market. Its miniature size taste, flavour and colour are appealing to consumers. It is delicious to eat raw or cooked.

Nutritional value: Half a cup (serving size) of boiled baby corn contains 18 calories, 0.1 g fat, 1.7 g protein, 3.6 g carbohydrates and 1.2 g dietary fibre. Besides, it also has vitamin A (276 retinol equivalents), vitamin C (16 mg), potassium (483 mg), sodium (158 mg), magnesium (76 mg), calcium (51 mg) and iron (2 mg).



Uses of baby corn: Baby corn is a popular vegetable in USA, Europe and Southeast Asia. The demand for baby corn is rapidly increasing in urban areas in India. Baby corn is not a separate type of corn like sweet corn or popcorn and any corn type can be used as baby corn. It is delicacy, which can be profitably used in prolific types of corn *i.e.* those types, which bear two or more ears per plant. The shank with unpollinated silk is baby corn. The economic product is harvest just after the silks emerge (1-2 cm long). Baby corn has immense potential as a salad and as cooked vegetable. It is used as an ingredient in ChopSuey (Chinese dish), soups, deep fried baby corn with meat, rice and other vegetables. Large number of dishes may be prepared from baby corn as discussed subsequently. Baby corn is highly nutritive. The nutritive value of baby corn is comparable to any common vegetable (Table 1). Since only immature cob is harvested as the economic produce, the crop meant as baby corn can be harvested within 50-55 days. Thus, in the areas adjoining cities or other urban areas (peri-urban agriculture) multiple

Table 1 : Nutritive value of baby corn in comparison to common vegetables (per 100 g of edible portion)									
Nutrient	Baby corn	Cauliflower	Cabbage	Tomato	French bean	Lady's finger	Radish	Brinjal	Spinach
Moisture content (%)	89.10	90.80	91.90	93.10	91.40	89.60	94.40	92.70	92.10
Carbo hydrates (g)	8.20	4.00	4.60	3.60	4.50	6.40	3.40	4.00	2.90
Protein (g)	1.90	2.60	1.80	1.90	1.70	1.90	0.70	1.40	2.00
Calcium (mg)	28.00	33.00	18.00	20.00	50.00	66.00	50.00	18.00	73.00
Phosphorus (mg)	86.00	57.00	47.00	36.00	28.00	56.00	22.00	47.00	21.00
Iron (mg)	0.10	1.50	0.90	1.80	1.70	1.50	0.40	0.90	10.90
Thiamine	0.50	0.04	0.04	0.07	0.08	0.07	0.06	0.04	0.03
Riboflavin	0.08	0.10	0.11	0.01	0.06	0.01	0.02	0.11	0.07

crop of baby corn can be raised which would fetch greater income to the farmers. Baby corn can be effectively used as both a nutritious vegetable and as an export crop to earn valuable foreign exchange. After harvest the still young plants may be used as fodder for cattle.

Recipe of some popular dishes made from baby corn:

- Baby corn with carrots,
- Moroccan couscous salad with baby corn,
- Goat cheese dip with crudites,
- Miniature soup with baby corn.

Future of baby corn in India : In India no cultivar has been exclusively bred for baby corn purpose. Prolific and early maturing cultivars have been mostly popularized as baby corn cultivar. In order to encourage uniformity in the material more emphasis is to be given towards development of early maturing prolific hybrids. As baby corn with light yellow colour and regular row arrangement fetches better market price, at the time of breeding for baby corn attention must be kept in this direction. In recent past baby corn has gained popularity in regular vegetable markets in urban areas. However, keeping in mind the nutritive value of baby corn there is a need to popularize it further in other urban and rural areas. Though baby corn is being sold in domestic market, they are being sold without proper processing. As a result there is considerable reduction in qualities of the cobs. This is principally due to lack of awareness among the farmers and due to non-existence of proper storage facilities and location of the farms far away from the market. Thus there is a need to develop appropriate entrepreneurship and establishment of appropriate storage and marketing facilities and popularization of baby corn cultivation in periurban agriculture. However, this is dependent on organization of markets and support from government sectors. Where baby corn is being grown for further market and export, extra care is to be taken to process the cobs and can them within two to three hours of harvest. Otherwise they will lose their nutritive value.

Conclusion : Corn will remain one of the important field

crops in the developing countries. Considerable scope exists for promoting baby corn technology in the Asia-pacific region. The baby corn industry provides opportunities for higher income, generates employment for the rural poor and potential for export. Besides, its use as vegetable provides additional source of nutrition to the consumers. Baby corn is expected to catch the attention of more and more consumers and farmers because of its superior taste and texture. Using local produce gives fresh and nutritious food and keeps small farmers in business. Thus, help supports the local economy and conserving natural resources (raw materials for transportation and packaging are saved). In order to harness these benefits, research and development support and appropriate policies at the national level are required. Hence, the Governments should therefore, concentrate on framing policies and development of human resources. In addition, government policies should encompass motivating young farmers and finding creative ways to sustain baby corn industry by involving personnel involved in both private and public sectors. Further, for promoting baby corn industry, regional co-operation for exchange of information and germ plasm, regional testing of selected hybrids and varieties, joint meetings and visits, human resource development, collaborative efforts for research and development and sensitization of policy makers for arriving at adoption of appropriate baby corn production and processing technology would be highly desirable.

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Received : 28.01.2015

Revised : 02.05.2015

Accepted : 16.05.2015