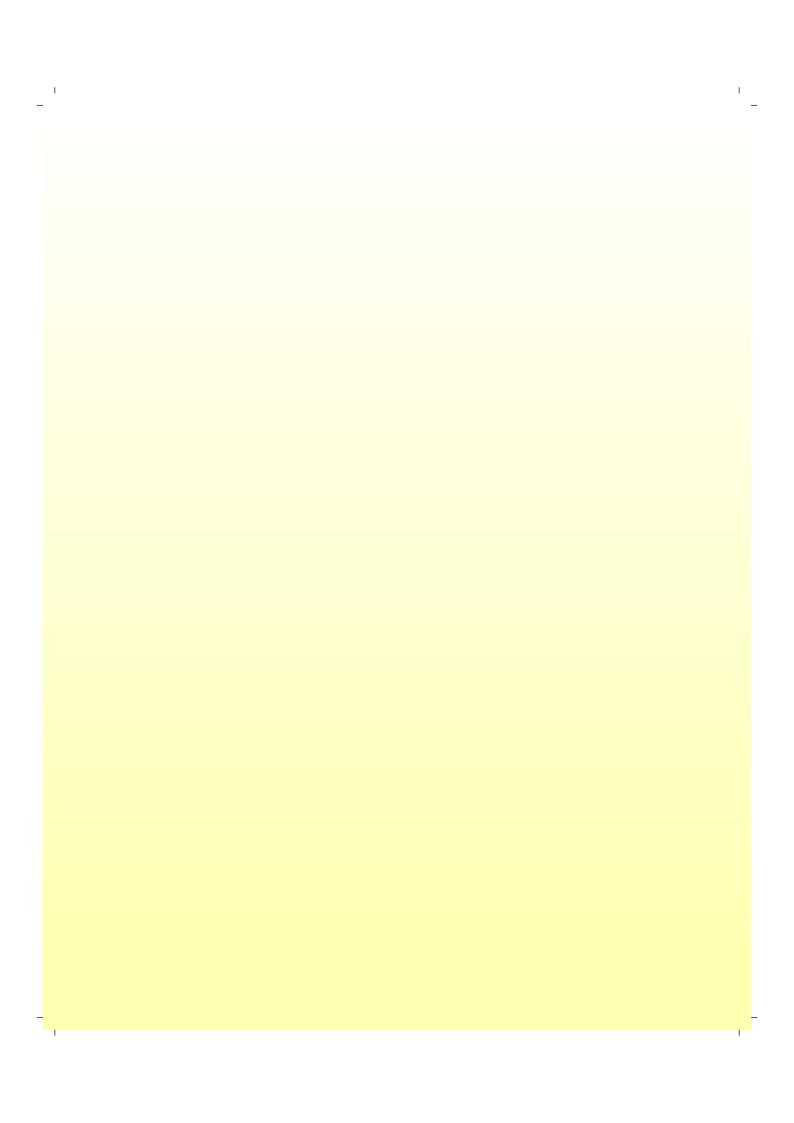
BABY CORN IN INDIA



Directorate of Maize Research

(Indian Council of Agricultural Research)
Pusa Campus, New Delhi - 110 012 (India)
Website: www.maizeindia.org, Email: pdmaize@gmail.com
Phone: 011-25841805, 25842372, 25849725



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Sain Dass V.K. Yadav Asha Kwatra M.L. Jat Sujay Rakshit Jyoti Kaul Om Prakash Ishwar Singh K.P. Singh J.C. Sekhar



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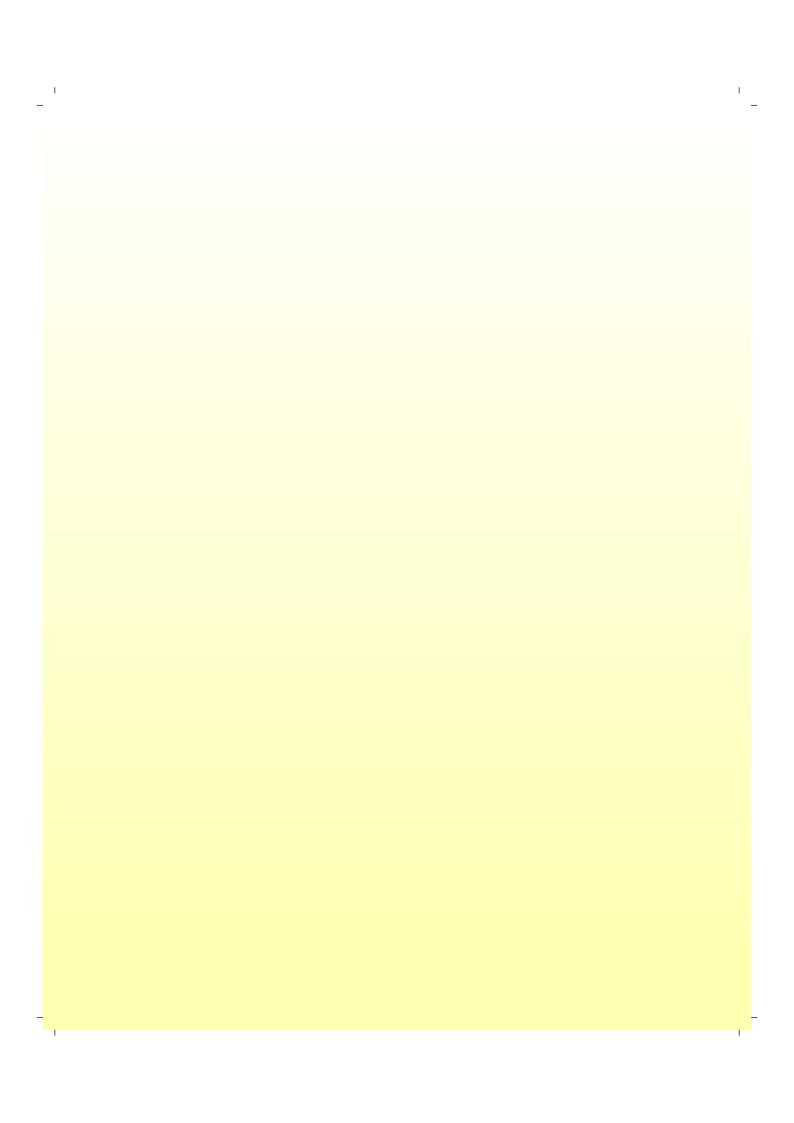
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INTRODUCTION

Baby corn is a young finger like unfertilized cob of maize with two to three centimeter emerged silk (Fig.1) preferably harvested within 1-3 days of silk emergence depending upon the growing season. It can be eaten raw and included in diet in number of ways as salads, chutney, vegetables, pickles, kheer, Chinese preparations, etc.



Fig. 1 Baby Corn with husk

The desirable size of baby corn is 6 to 11 cm in length and 1.0 to 1.5 cm in diameter with regular row arrangement (Fig. 2) that depends on the variety, population density and the cropping season. The most preferred colour by the consumers / exporters is generally creamish to very light yellow.

It has great potential both for internal consumption as well as for export round the year as 3-4 crops of baby corn can be taken in one year. Thailand is the major

baby corn producing and exporting country in the world, while



Fig. 2 Baby corn without husk

India has emerged as one of the potential baby corn producing countries because of the low cost of production as compared to many other countries. Major baby corn producing, exporting and importing countries are mentioned in Table 1.

NUTRITIVE VALUE OF BABY CORN

Baby corn is nutritive and its nutritional quality is at par or even superior to some of the seasonal vegetables. Besides proteins, vitamins and iron, it is one of the richest sources of phosphorus. It is a good source of fibrous protein and easy to digest (Table 2). It is the most "safe" vegetable to eat as it is almost free from residual effects of pesticides as the young cob is wrapped up with husk and well protected from insects and diseases.

Table 1. Major baby corn countries

Particulars	Countries
Major baby corn producing countries	Thailand, Taiwan, Guatemala, South Africa, Zambia, Zimbabwe, Peoples Republic of China, Nepal, Japan, Sri Lanka and India
Major baby corn exporting countries	Thailand, Taiwan, Guatemala, S. Africa, Zambia, Zimbabwe and Peoples Republic of China
Major baby corn importing countries	U.S.A., Japan, Hong Kong, Singapore, Australia, Malaysia, Canada, Saudi Arabia, New Zealand, European countries and India

Table 2: Nutritional composition of baby corn on dry matter basis

Particulars	Baby Corn Hybrid (HM-4)	
Moisture[g/100g]	7.37	
Crude protein[g/100g]	10.04	
Crude fat[g/100g]	4.43	
Crude fibre[g/100g]	2.40	
Ash[g/100g]	1.34	
Total carbohydrates	81.97	
Energy[Kcal/100g]	375.67	
Total soluble sugars [g/100g]	0.14	
Calcium [mg/100g]	17.76	
Phosphorous[mg/100g]	197.89	
Iron[mg/100g]	2.73	

Source: Asha Kawatra and Salil Sehgal 2007. Value-added products of maize [Quality Protein Maize and Baby Corn]. National conference on "Double Maize Production" organised by IFFCO Foundation, ICAR, DMR, DAC & IFFCL at New Delhi on May 08-09, 2007

ADVANTAGES OF BABY CORN CULTIVATION

Diversification:

It can be grown round the year and promotes diversification. It is suited for peri-urban agriculture.

Employment generation:

It provides employment in the form of cultivation, marketing, processing and export.

Earning money in shortest possible time:

Baby corn (

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.

Potential for export:

Baby corn has a great demand in the international market. The foreign exchange can be earned by exporting baby corn and its products.

Quality fodder for livestock:

Green fodder obtained after the harvesting of baby corn can be used as a feed to livestock (Fig. 3) throughout the



Fig. 3 Green fodder for cattle

year. The farmers can save their land used for green fodder cultivation.

Value addition:

Value addition of baby corn is possible through preparation of several recipes

viz, soup, salad, pakora, vegetables, pickles, candy, murabba, jam, laddoo, burfy, etc.

Intercropping:

Intercropping of vegetables, pulses, flowers, etc. can be done with baby corn in rabi to ensure additional income to the farmers.

PRODUCTION TECHNOLOGY

In general, the cultivation practices of baby corn are similar to grain crop except

- (i) preference for early maturing single cross hybrids
- (ii) higher plant population
- (iii) higher dose of nitrogen application because of higher plant population
- (iv) detasseling
- (v) harvesting of unfertilized small cobs within 1-3 days of silk emergence.

However, to achieve higher productivity, following package should be adopted:

Selection of suitable varieties:

Short duration, prolific, single cross hybrid with medium height should be selected. HM-4, Prakash, etc. are suitable hybrids for baby corn. Traits contributing to higher baby corn yield are as follows:

i) Early maturating single cross hybrids:

To earn better returns in shortest period from baby corn crop, early maturing single cross hybrids are suggested with silking period of 45-50 days in kharif, 75-80 days in spring and 120-130 days in winter in North Indian states.

ii) Medium height and lodging resistance:

Baby corn is cultivated with high plant populations. In general, with high plant density, lodging has been observed. Therefore, hybrid with strong plant type and better root system is preferred.

iii) Prolific:

Cultivars producing more than one ear per plant are desirable for higher yield of baby corn.

iv) Responsive to high dose of fertilizers:

As baby corn is cultivated in higher plant density, fertilizer responsive cultivars are more suitable for the purpose.

v) No barrenness:

Varieties possessing no barrenness trait are desirable for proper yield.

vi) Stay green:

For getting better fodder quality, genotypes grown for baby corn cultivation must possess the stay green traits. After the picking of baby corn, left over plant material is used as green fodder.

vii) Erect leaves:

To accommodate more plant per unit area, erect leaves is a very good trait. This allows better interception of light and hence, enhance net photosynthesis.

viii) Length of dehusked ear:

Preferably not exceeding 10 cm with 1.0-1.5 cm diameter.

ix) Husked to dehusked ratio:

It should be 5-6:1

x) Harvesting period:

Harvesting period should be within 10-12 days in kharif / spring and 20 days in winter crop.

xi) Deformity:

Each plant should give 3-4 pickings of baby corn. Each baby corn should maintain desirable size and colour.

Sowing time:

It can be sown round the year in southern India. In northern India, it can be sown from February to November. It can be grown through transplanting in furrows in December-January in northern India. For this purpose nursery should be raised in November. Generally, August to November planting yield best quality baby corn.

Sowing method:

Sowing should be done on southern side of the ridges with 60 cm x 15 -20 cm row x plant spacing depending upon plant type (erect/spreading).

Seed rate:

Optimunm seed rate is 22-25 kg/ha depending upon the test weight of the hybrid.

Seed treatment:

Seeds should be treated (Fig. 4, 5 & 6) with fungicides and insecticides before sowing to protect it from seed and soil borne diseases and some insect-pests.

Bavistin + Captan in 1:1 ratio @ 2 g/kg seed for TLB, BLSB, MLB, etc.

Apron 35 SD @ 4 g/kg seed for BSDM

Captan 2.5 g/kg for Pythium Stalk Rot



Fig. 4 Adding chemical in seed



Fig. 5 Shaking seed in container



Fig. 6 Drying treated seed

Fipronil @ 4 ml/kg for termite and shoot fly

Note: TLB: Turcicum leaf blight

BLSB: Banded leaf and sheath

blight

MLB: Maydis leaf blight

BSDM: Brown stripe downy

mildew

Nutrient management:

Nutrient application should be based on soil test. Generally 150-180:60:60:60:25 Kg/ha N,P,K and ZnSO₄ with 8-10 tons/ha FYM (Fig. 7) should be applied.



Fig. 7 Application of FYM

Full dose of phosphorus, potash and zinc and 10 % N should be applied as basal dose (Fig. 8). The remaining dose of nitrogen should be applied in four splits as per details given below to avoid losses and to meet the requirement throughout the crop cycle-

- 1. 20% N at 4 leaf stage
- 2. 30% N at 8 leaf stage
- 3. 25% N before detasseling
- 4. 15% N after detasseling



Fig. 8 Basal application of NPK&Zn

Weed management:

Broad leaf weeds and most of the grasses can be controlled by preemergence spray of Atrazine (Fig. 9) @1.0-1.5 Kg/ ha in 500-600 litre of water. While spraying, the person who is doing



Fig. 9 Packet of Atrazine

spray should move backward (Fig.10) so that the atrazine film on the soil surface may not be disturbed. Preferably, three nozzle booms may be used for proper ground coverage and saving of time.



Fig. 10 Pre-emergence spray of Atrazine

One to two hoeings are recommended for aeration and uprooting of the remaining weeds. While doing hoeing, the person should move backward to avoid compaction of soil and to facilitate better aeration.

Water management:

First irrigation should be applied very carefully. Water should not overflow on the ridges. The irrigation should be applied in furrows upto 2/3rd height of the ridges (Fig. 11). Irrigation should be given as and when required by the crop depending upon the rains and moisture holding capacity of the soil. Young seedlings, knee high stage, silking and picking are the most sensitive stages for water stress for crops and irrigation

should be ensured at these stages. Light and frequent irrigations are desirable for crop. During winter (mid December to mid February) soil should be kept wet to avoid frost injury.



Fig. 11 Irrigation in furrows

Intercropping:

Baby corn is very remunerative, if it is cultivated with intercrop. As many as 20 crops, namely potato(Fig. 12), green pea(Fig. 13), rajmash for green pods, palak (Fig. 14), cabbage (Fig. 15), cauliflower (Fig. 16), sugar beet (Fig. 17), green onion, garlic, methi, coriander, knol-khol, broccoli, lettuce, turnip, radish, carrot (Fig. 18), french bean, celery, gladiolus (Fig. 19), etc. have been successfully tried in the winter season. Since, the season is long therefore, farmers can utilize his lean period and get additional income through intercropping in babycorn. There is no adverse affect of intercrops on baby corn and vice-versa, rather, some of the intercrops help in improving soil fertility and protect the baby corn



Fig. 12 Baby corn + Potato



Fig. 13 Baby corn + Pea



Fig. 14 Baby corn + Spinach



Fig. 15 Baby corn + Cabbage



Fig. 16 Baby corn + Cauliflower



Fig. 17 Baby corn + Sugarbeet



Fig. 18 Baby corn + Carrot



Fig. 19 Baby corn + Gladiolus

crop from cold injury. Intercrops protect the baby corn from northern cold wind because baby corn is planted on southern side and intercrops in northern side of the ridge. In general, short duration varieties of intercrops are preferred for intercropping with baby corn. Recommended dose of fertilizers of intercrops should be applied in addition to the recommended dose of fertilizers of baby corn. In kharif season. cowpea for green pods and fodder purposes, urd, mung, etc. can be intercropped with baby corn. Numbers of intercrops are option for the farmers but for commercial purpose, pea and potato can be taken on large scale during winter season.

Protection from serious insect pests:

Stem borer (<u>Chilo partellus</u>), Pink borer (<u>Sesamia inferens</u>) and Sorghum shoot fly (<u>Atherigona spp</u>) are serious problems in kharif, rabi and spring seasons, respectively. Stem borer can be controlled by 1-2 spray of Carboryl or Endosulfan after 10 and 20 days of germination. Spraying should be done in the central whorl of plant.

Ist spray:

500 gm Carboryl or 625 ml Endosulfan (35EC) application of insecticide in 500 litre water in the central whorl of plant (Fig. 20).



Fig. 20 Spraying Enobsulfan in the central whorl

IInd spray:

750 gm Carboryl or 900 ml Endosulfan (35EC) in 700-800 litre water, if required.

Detasseling:

To maintain the quality of baby corn, detasseling is an essential operation. It is done by removing the tassel of the plant as soon as it emerges from the flag leaf. It should be practiced row-wise. While detasseling, leaf should not be removed (Fig. 21) which will otherwise affect net photosynthesis and ultimately reduce average baby corn yield. It has been observed that the removal of 1 to 3 leaves along with tassel reduces 5-15 % yield of baby corn. The removed tassel (Fig. 22) should not be thrown in the field as it is nutrient rich and should be fed to the cattle.



Fig. 21 Right way of detasseling



Fig. 22 Tassel

Harvesting:

Picking should be done daily in kharif and on alternate days in winter season within 1-3 days of silk emergence from the leaf sheath depending upon the variety. Harvesting should be done when baby corn silk comes out 2.0-3.0 cm from the top of ears, (Fig. 23) preferably in the morning or evening, when the baby corn moisture is highest and ambient temperature is low. In single cross hybrid plant, 3-4 pickings may be obtained.



Fig. 23 Right way of harvesting

Yield:

It depends on potential of genotypes and climatic conditions. In a good crop, on an average 55-114 q/ha husked baby corn (Fig. 24) or 11-19 q/ha dehusked baby corn (Fig. 25) can be harvested. Green



Fig. 24 Husked baby corn



Fig. 25 Dehusked baby corn

fodder yield is about 150-400 q/ha that gives additional income to the growers.

By-products:

A number of by-products are produced in the cultivation of baby corn such as tassels, silks, husks, green plant material etc. after harvest. All these by-products are highly nutritive and can be fed to the cattle which increase milk yield.

POST HARVEST MANAGEMENT:

The effort should be made to peel the baby corn on the same day and stored in a cool and dry place. It should be carried out in shady places having good ventilation and air circulation. Dehusked baby corn should be put in containers like plastic baskets, bags, sacks and ensure that they are not heaped. Baby corn should be transported to the processing unit at the earliest.

Quality traits of baby corn

◆Baby corn should be uniform in color, shape and size.

- Color of baby corn should be creamish or light yellow.
- ◆Ears should be straight.
- ◆Ears should not have slitting marks.
- •Ears should be fresh, free from defects like rotting, over dryness, over ripening and water soaking.
- Trimming of baby corn should be neat and leave no scars on ears.
- ◆Ovule/row arrangement should be regular and straight.

Grading:

Baby corn can be sorted and graded by machine (Figs. 26, 27, 28 and 29) or manually. Different grades of baby corn are mentioned in table 3.



Fig. 26 Machine for cleaning of baby corn

Table 3: Grades of baby corn

Grade	Length	Diameter
Short*	4-7 cm	1.0-1.2 cm
Medium*	7-11 cm	1.2-1.4 cm
Long**	11-13 cm	1.4-1.5 cm
*International Marketing	**Local Marketing	



Fig. 27 Cleaning by Machine



Fig. 28 Cleaned baby corn



Fig. 29 Grades of baby corn

Packaging:

The packing varies from unit to unit. It can be in tin, glasses and polybags. For longer time of preservation, glass packing is the best. Glass packing has 52% baby corn and 48% brine solution. HPMC, Sundernagar(H.P.) is using tin packing. Farmers are generally using polybags for packing.

Processing

Baby corn can be processed to improve its shelf life. Main processing method which can be used to improve the shelf life are:

- Canning
- Dehydration
- Freezing

Canning

Canning is the most commonly used method for processing of baby corn. Baby corn can be canned in brine solution (Fig. 30) and can be stored for months together and transported to far





Fig. 30 Canned glass bottle and tin

off places. The baby corn ears are usually canned at processing factories. Flow diagram is mentioned below:

Peeled baby corn ---> Cleaning ---> Boiling ---> Soaking ---> Grading ---> Containing ---> Brine solution ---> Exhaust ---> Lid covering ---> Cooling ---> Quality Inspection.

Dehydration

Dehydration can be used to increase shelf life of baby corn for longer period. Baby corn can be cut into ½ cm round pieces and dried in oven [air oven/vaccum oven] or can be solar dried. Dried baby corn can be packed in polythene pack (Fig.31)/vacuum pack/tetrapack and can be stored well for longer period. Dehydrated boby corn can be rehydrated by soaking in water



Fig. 31 Dehydrated baby corn

and can be used in preparation of food products. Products developed using

dried baby corn have been found to be acceptable organoleptically like those prepared from fresh baby corn.

Freezing

Baby corn can be frozen and stored for long period like other frozen vegetables. Frozen baby corn (Fig. 32) can be used effectively for preparation of food products. Preparation like soups & vegetables prepared from frozen baby corn are as acceptable as preparation made from fresh baby corn. Frozen baby corn can be directly used in various preparations.



Fig. 32 Frozen baby corn

Preservation:

After filling baby corn in container, brine and water are added in cans in the proportion of 2:98 (Brine 2% and water 98%), alternatively, a solution of 3% brine, 2% sugar, 0.4% citric acid and balance water can also be used.

Economic returns:

Farmers can take 3-4 crops in a year depending upon the climatic conditions. Economics of baby corn cultivation is as follows:

Cost of cultivation per crop (Rs. per hectare)

Cost of cultivation : 15,420/Gross return : 60,000/Net return : >40,000/-

Yield: 12 q, Rate: 50 Rs/q, Gross return: Rs. 60,000/- (conservative estimate), Fodder: 150 q, Rate: 50 Rs/q Gross

Return: Rs. 7500/-

Marketing:

Assured marketing is pre-requisite for baby corn cultivation. So far, in India, there is no systematic market for baby corn. It can be marketed as fresh husked/dehusked young cobs, canned product and pickles. Since, baby corn candy and pickle are in great demand in USA and some European countries, India could be an important country for export of baby corn in future. Pachranga private company from Panipat (Haryana) is already exporting baby corn pickles. Therefore, there is a need for promoting the baby corn trade in India.

CONSTRAINTS AND SUGGESTIONS

Despite of its better economic return and increasing demand in the international

market, the cultivation of baby corn has not become popular in India due to following reasons:

- Less availability of quality seed
- Unawareness among common people about its use and taste
- Lack of processing facilities
- Lack of marketing facilities in rural areas

Technologies regarding cultivation and uses of baby corn are available, therefore it is suggested that awareness among farmers should be provided through training programmes, demonstrations, use of various media, etc. Public seed producing agencies, private seed producing agencies and progressive farmers should take up seed production of single cross hybrids best suited for baby corn cultivation to meet the requirement of farmers. Government and private sector agencies should join hands for establishment of processing plant of baby corn in suitable areas. Cooperatives/farmers' group at village/block level may be helpful in establishing processing plant. Contractual farming is suggested for regular supply of baby corn to the processing unit. Farmers should get regular market information for selling their produce and getting maximum returns.

SUCCESS STORY OF BABY CORN HYBRID HM 4

Baby corn plays a significant role in ensuring livelihood security and augmenting income level of farmers in peri-urban areas. Maize hybrid HM 4 (Fig. 33) possess all the desirable traits of an ideal baby corn. Its cultivation is gaining momentum not only in national capital region but also in peri-urban interface of other states in India. 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. It is lodging resistant, prolific and responsive to high dose of fertilizers. Plant remains green even after picking of baby corn. Three to four pickings are common. Green plants also provide quality fodder to livestock. It is also suitable for intercropping with vegetables, pulses, flowers, etc. to get additional income from the same resources.

Farmers of "Aterna" village in Sonipat district of Haryana started baby corn cultivation during 1997. Initially farmers were using the seed of private sector hybrids costing Rs.160-200/-kg.



Fig. 33 Baby corn field

Farmers had to invest heavily on seed input due to higher seed rate(20 kg/acre) and costly seed. Inspite of this fact, farmers continued cultivation of baby corn due to commercial value and high income in short period. An innovative farmer Shri Kanwal Singh Chauhan of this village came to know about new baby corn hybrid HM 4 from the breeder of this hybrid, Dr. Sain Dass at Regional Research Station, Chaudhary Charan Singh Haryana Agriculture University, Uchani, Karnal.

He obtained seed of HM- 4 and introduced this in his village for baby corn cultivation. He obtained seed at very cheap rate i.e. around Rs.50/- per kg of seed. Seed rate of this hybrid is low (8-10 kg/acre). Therefore, cost of cultivation was reduced. Produce of baby corn was brought in Azadpur Mandi, Delhi. Its demand increased due to desirable colour, size and taste of this hybrid. He invested less than Rs.10,000/- per acre and earned more than Rs.30,000/- per acre within 60 days of crop duration. He started growing HM- 4 round the year. His neighbours also adopted this hybrid. Haryana Seed Development Corporation (HSDC) is producing seed of this hybrid and making seed available to the farmers.

Every farmer in this village is cultivating baby corn and well experienced about advantages of HM 4 hybrid. It proved boon for the farmers of Aterna village. Socio-economic condition of the villagers significantly improved. Every farm family has own pucca house, land, vehicles and other facilities.

Farmers of this village are also producing truthful seed of HM 4 hybrid (Fig. 34). They are fulfilling seed requirement of HM 4 of neighbouring villages as well as farmers of different parts of the country.

Field visit of baby corn hybrid HM 4 was organised (Fig. 35) in this village.

Training programmes on seed production, cultivation and value addition of baby corn were also organized by the Directorate of Maize Research, New Delhi. Farm women are keenly interested in recipes of baby corn. Trained farm women are preparing recipes viz. pickle, murbaba, pakora, soup, chutney, Manchurian, vegetables, kheer, burfy, laddoo, etc. in the village (Fig. 36, 37). Baby corn hybrid HM 4 and its value added products were also displayed in exhibitions (Fig 38, 39) organised in different parts of the country. Visitors were interested and expressed satisfaction over quality of HM 4 hybrid and its products.



Fig. 34 Seed production of baby corn



Fig. 35 Dr. A.K. Upadhyay, Secretary, ICAR visiting baby corn field



Fig. 36 Recipes of baby corn



Fig. 37 Recipes of baby corn



Fig. 38 Dr. Mangala Rai, Secretary, DARE & DG, ICAR discussing about value added products of baby corn



Fig. 39 Sh. Sharad Pawar, Union Agriculture Minister visiting stall of baby corn recipes

VALUE ADDED PRODUCTS OF BABY CORN

Baby corn can be utilized for the development of a variety of products. Some of the recipes are described below:

Baby Corn-Tomato Soup

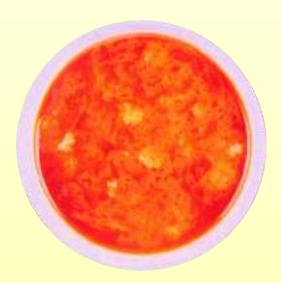
Ingredients

Baby Corn : 50g Tomato : 100g

Butter : ½ tsp (Tea spoon)

Corn flour : 1 tsp

Salt and pepper : as per taste



- ❖ Wash and chop baby corn and tomato and boil till soft.
- Strain boil tomatoes and baby corn.
- Make a paste of corn flour with water and pour into strained soup.
- ❖ Add salt and pepper in the soup and cook on slow flame for 5 minutes.
- ♦ While serving, add butter and ¼ th cm thick round slices of blanched baby corn.

Baby Corn Vegetable Soup

Ingredients

Baby corn : 150g
French beans : 25g
Carrot : 25g
Butter : ½ tsp
Corn flour : 1 tsp

Salt and black pepper : as per taste



- ❖ Wash and chop baby corn, french beans and carrot and boil till soft.
- Strain boiled vegetable and baby corn.
- Make a paste of corn flour with water and add to strained soup.
- ❖ Add salt and pepper in the soup and boil on slow flame for 5 minutes.
- ♦ While serving, add butter and ¼th cm long slices of blanched baby corn, french beans and carrot.

Baby Corn Salad

Ingredients

Baby corn:100gLemon: $\frac{1}{2}$ Green chillies:2Chat masala: $\frac{1}{2}$ tsp

Salt : as per taste



- Wash baby corn and cut into thin long slices.
- Arrange baby corn and green chillies over a plate and sprinkle lemon juice over it.
- Sprinkle chat masala and salt while serving.

Baby Corn Pakora

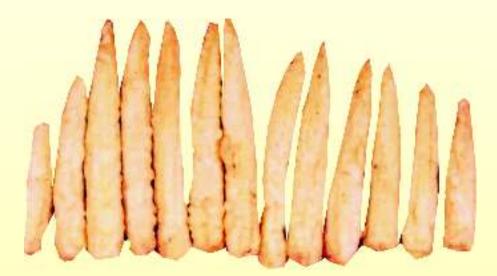
Ingredients

Baby corn : 100 g
Bengal gram flour : 50 g
Corn flour : 10 g

Red chilli powder : ¼ tsp (tea spoonful)

Garam Masala : 1/4 tsp Chat masala : 1 tsp

Salt : as per taste
Oil : for frying



- Select small sized fresh baby corn and blanch in boiling water for 10 minutes.
- Make a batter of pouring consistency by mixing bengal gram flour, all the spices and water.
- ❖ Make lengthwise slit in the baby corn and sprinkle chat masala over it.
- Dip baby corn in batter and deep fry in hot oil till golden brown in colour.
- Keep fried pakoras on tissue paper and serve hot with tomato sauce.

Baby Corn Chutney

Ingredients

Baby corn : 1 kgSugar : $\frac{1}{2} \text{ kg}$ Onion : 200 g

Ginger : 20 g (finely chopped)

Salt : 20 g
Red chilli powder : 10-20 g
Garam Masala : 10 g
Water : 200 ml.



- Wash and clean baby corn with hot water and make a fine paste of it.
- Add finely chopped onion, grated ginger and garlic paste, water to baby corn and cook till it is soft.
- ❖ Add salt and spices and cook till the mixture gets concentrated.
- Add sugar, mix throughly and cook.
- Perform the plate test, add acetic acid and remove from flame.
- Fill in clean container and close the lid.

Baby Corn Cutlet

Ingredients

Baby Corn : 100g Potatoes : 100g

Breadcrumbs : 2 tbsp (table spoon)

 $\begin{array}{ccccc} \text{Corn flour} & : & 1 \text{ tbsp} \\ \text{Green chillies(chopped)} & : & 2 \\ \text{Red chilli powder} & : & \frac{1}{2} \text{ tsp} \\ \text{Garam masala} & : & \frac{1}{2} \text{ tsp} \\ \end{array}$

Salt : as per taste



- Wash baby corn properly and grind to fine paste in grinder.
- Boil, peel and mash potatoes well and mix with baby corn paste.
- Add all the spices and mix well and make cutlets of oval shape from mixture.
- Make batter of corn flour and water.
- Dip cutlet in batter and roll cutlets in breadcrumbs and fry till light brown in colour.
- Keep fry cutlets on tissue paper and serve hot with tomato sauce.

Baby Corn Chat

Ingredients

Baby Corn 100g Onion 50g **Tomato** 50g Potatoes (boiled) 50g Green chillies 2 Lemon 1/2 ½ tsp Black pepper Chat masala ½ tsp

Salt : as per taste Green coriander : few leaves



- Wash the baby corn and keep in boiling water for one minute.
- Chop baby corn into round slices (1 cm thick) and onion, tomato, potato, green coriander into small pieces.
- Mix the chopped vegetables and baby corn, sprinkle salt, pepper, chat masala and lemon juice.
- Mix properly and decorate with green coriander.

Baby Corn Dry Vegetable

Ingredients

Baby Corn : 100g

Tomato : 30 g

Onion : 30g

Garlic paste : ½ tsp

Ginger paste : ½ tsp

Green coriander : few leaves

Red chilli powder : ½ tsp

Red chilli powder : 1/4 tsp Cumin seeds : 1/4 tsp Garam masala : 1/4 tsp

Salt : as per taste
Oil : 1 tbsp



- ❖ Wash and cut baby corn into 1 cm thick round slices.
- Blanch baby corn slices for 5 minutes.
- Chop onion, tomato and green coriander finely.
- Heat oil in a pan and saute cumin seeds followed by ginger and garlic paste.
- Add chopped onion and fry till golden brown.
- Mix all the spices and tomatoes and cook for 4-5 minutes.
- Add blanch baby corn and cook till completely done.
- Garnish with coriander leaves.

Baby corn 3'

Baby Corn Kofta Curry

Ingredients

Baby Corn : 100g
Bengal gram flour : 50g
Potato : 50g
Mango powder : ½ tsp
Red chilli powder : ½ tsp
Omum seeds : ¼ tsp

Salt : as per taste
Oil : for frying

Method

Wash and grate baby corn.

Boil and mash potatoes.

Mix grated baby corn, mashed potatoes and all spices well.

Make small balls and deep fry till golden brown.

For Gravy

100 g Onion Tomato 100g Cumin seeds ½ tsp Ginger small piece Garlic 2-3 cloves Garam masala ½ tsp Red chilli powder ½ tsp Salt as per taste Oil 1 tbsp

- Grind onion, tomato, ginger and garlic separately.
- Heat oil in a pan and add cumin seeds followed by garlic- ginger paste, onion paste and fry till golden brown.
- Add tomato paste and all other spices and cook for sometime. Pour one cup of water and cook on slow flame for thickening of gravy.
- Add koftas in gravy and remove from the flame and serve hot.

Baby Corn Mixed Vegetable

Ingredients

Baby Corn 100g Capsicum 25g Cabbage 25g Carrot 25g Peas 25g Tomato 50 g Onion 50g Garlic 2 cloves Ginger small piece few leaves Green coriander Red chilli powder ½ tsp Garam masala ½ tsp

Salt : as per taste

Oil : 20ml



- ♦ Blanch baby corn for 5 minutes and cut into round pieces (½" long).
- Chop all other vegetables, onion and tomato.
- Heat oil in a frying pan and add ginger and garlic paste.
- Add onion and fry till light brown in colour and add all other spices followed by chopped tomatoes.
- Finally add baby corn and all other vegetables and cook till completely done on a slow flame.
- Decorate with coriander leaves and serve hot.

Baby Corn Masala

Ingredients

Baby Corn 100g Onion 100g Tomato 100g Garlic 2 cloves Ginger small piece Green coriander few leaves Red chilli powder to taste Garam masala ½ tsp Salt as per taste

Cinnamom : small piece
Cardamom (big) : 2 pieces
Coriander leaves (chopped) : few
Oil : 1 tbsp



- Make paste of onion, ginger, garlic and tomatoes separately.
- Heat oil and add cardamom and cinnamom followed by ginger and garlic paste.
- Add onion paste and fry till light brown and add tomato paste and cook till oil separate out.
- ❖ Add all other spices and half cup of water and cook for some time.
- Chop baby corn into long round slices (½" thick) and add to the cooked masala.
- Cook on slow flame for 10 minutes till baby corn is soft.
- Decorate with chopped coriander leaves.

Baby Corn Sweet and Sour

Ingredients

Baby Corn : 100g
Tomato : 250g
Ginger : 1 cm thick
Garlic : 2 cloves
Sugar : 2 tsp
Vinegar : 1 tsp
Corn flour : 1 tsp

Salt : as per taste Red chilli powder : as per taste

Black pepper : ½ tsp
Oil : 10 ml



- Blanch and peel tomatoes and grind to a fine paste.
- Make a paste of corn flour and water.
- Heat oil and saute ginger and garlic paste.
- Add tomato puree and cook for five minutes.
- Add blanched baby corn followed by sugar, vinegar and other spices and corn flour paste.
- Cook for five minutes on slow flame and serve hot.

Baby Corn Manchurian

Ingredients

Baby Corn : 100g
Capsicum : 30g
Beans : 30g
Peas : 30g
Green chillies : 3-4

Garlic : 8-10 cloves Soya sauce : 3-4 drops

Vinegar 1 tsp Black pepper ½ tsp Corn flour 1 tbsp Refined flour 2 tbsp Tomato sauce 2 tbsp Chilli sauce ½ tbsp Orange-red color a pinch Oil for frying



- Grate baby corn and chop capsicum, beans, peas and ginger finely.
- Blanch for one minute.
- Add corn flour, refined flour, 1-2 drop soya sauce, pepper, salt and small amount of water.
- ❖ Make balls and fry in preheated oil, drain and keep aside.
- Heat oil in a pan and add tomato sauce, chilli sauce, vinegar and salt.
- Fry chopped garlic green chilli and onion for 1-2 minutes.
- Prepare a thin paste of water and corn flour (1 table spoon) and add to mixture and cook for two minutes.
- Add fried manchurian, mix and cook for two minutes.

Baby Corn Chilli

Ingredients

Baby Corn : 250g
Onion : 100g
Capsicum : 100g
Tomato puree/sauce : 2 tbsp
Garlic (paste) : 1 tsp
Green chillies : 2

Soya sauce : 2-3 drops
Vinegar : 1 tbsp
Black pepper : ½ tsp
Corn flour : 1 tbsp
Refined flour : 2 tbsp

Salt : as per taste

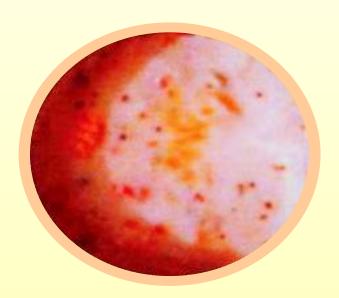


- ❖ Blanch baby corn for 5 minutes and cut into 1" long pieces.
- Make a batter of refined flour and corn flour and add salt and pinch of black pepper.
- Dip baby corn pieces into batter and fry in pre-heated oil and keep aside.
- Heat oil in a pan and saute garlic paste.
- Chop onion and capsicum and add to oil.
- Add green chillies, chilli sauce, tomato sauce, soya sauce and salt, followed by fried baby corn.
- Mix well and remove from flame.

Baby Corn Raita

Ingredients

Baby corn : 100 g
Curd : 250 g
Salt : 1 g
Pepper : a pinch
Cureir seed powder : 1 pinch



- Wash baby corn and grate it finely.
- Boil its in small amount of water till soft.
- ❖ Add the boiled baby corn in curd after they are cooled.
- Mix salt, pepper and cureir seed powder.
- You can also add chopped tomatoes, onion and coriander leaves.

Baby Corn Pickle (Sour)

Ingredients

Baby Corn : 1kg Aniseeds : 25g

Red chilli powder : as per taste

Mustard seeds : 50g
Saunf : 50 g
Salt : 180g
Mustard oil : 150ml
Vinegar : 10ml



- ♦ Wash fresh small sized baby corn in hot water and cut into long slices (1½") and dry to remove excess water.
- Grind mustard seeds, aniseeds and saunf coarsely.
- Heat half of oil in a pan and add aniseeds, mustard seeds and saunf and red chilli powder and fry.
- Remove from fire and add baby corn followed by vinegar and salt and oil.
- Mix well, cook and fill in a clean and airtight jar and keep in sun for 5-6 days.

Baby Corn Pickle (Sweet and Sour)

Ingredients

Baby Corn 1kg Onion 50g Garlic 20g Ginger 20g Red chilli powder to taste Mustard seeds 30g Salt 80g Turmeric 1 tsp Mustard oil 150ml Vinegar 50ml 200g Jaggery



- Wash fresh and small sized baby corn in hot water and cut into long slices and dried to remove excess water.
- Finely chop onion, ginger and garlic. Grind mustard seeds coarsely.
- Heat half of oil in pan and add chopped onion, ginger and garlic and fry.
- Add all spices except salt and mustard powder.
- Cook for 2 minutes and add mustard powder, vinegar, salt and mix baby corn in it.
- Remove from fire, cool and add remaining oil and fill in a clean and airtight jar and keep in sun for 5-6 days.

Baby Corn Candy

Ingredients

Baby corn : 500g
Sugar : 1.25kg
Citric acid : 2.5g
Water : 750ml



- ❖ Select good quality baby corn and cut into 1" long pieces.
- Prick baby corn gently with fork and blanch for three minutes.
- ❖ Add 750gm sugar to 750 ml water and make sugar syrup.
- Add 2.5 gm citric acid to syrup and boil and remove dirt from syrup surface.
- Cool the sugar syrup till TSS (total soluble solid) percent is 55 using hand refractometer.
- Add pricked and blanched baby corn in syrup solution and leave overnight.
- Next day, remove baby corn from syrup solution.
- Add 250gm sugar and boil till TSS percent is 57.
- Add baby corn to syrup and leave overnight.
- Next day again, remove baby corn and note the TSS percent which will be nearly 55 percent.
- Add 250gm sugar and boil for five minutes till TSS percent is 75 percent.
- Add baby corn to syrup and leave overnight.
- Next day, note the TSS percent as 70 percent, boil and cool.
- Remove baby corn from syrup and dry in a oven at 50°C overnight.
- Pack candy in airtight polyethylene packets.

Baby Corn Jam

Ingredients

 Baby Corn
 : 500g

 Apple
 : 500g

 Sugar
 : 750g

 Water
 : 100ml

 Citric acid
 : 5g



- ❖ Wash fresh baby corn with hot water, chop and grind well in to paste in grinder by adding water.
- ❖ Wash, peel and grind apples also. Mix baby corn and apple paste.
- Add citric acid and sugar and keep covered for five minutes.
- Cook on a high flame stirring occasionally.
- ❖ Keep on cooking till it reaches required consistency and perform sheet test. If the sheet test is positive, turn off the flame.
- Fill hot in a clean airtight glass bottle.

Baby Corn Murabba

Ingredients

Baby corn : 500g Sugar : 1.25kg Citric acid : 2.5g Water : 750ml



- Select good quality baby corn and cut into 1" long pieces.
- Prick baby corn gently with fork and blanch for three minutes.
- ❖ Add 750g sugar to 750 ml water and make sugar syrup.
- Add 2.5g citric acid to syrup and boil and remove dirt from syrup surface.
- ❖ Cool the sugar syrup and note down TSS percent as 55 by using hand refractometer.
- ❖ Add pricked and blanched baby corn in syrup solution and leave overnight
- Next day, remove baby corn from syrup solution and note down TSS percent as 40 percent.
- ❖ Add 250g sugar and boil and TSS percent note down as 57.
- Add baby corn to syrup and leave overnight.
- Next day again, remove baby corn and keep the TSS percent as 55.
- Add 250g sugar and boil for five minutes and keep TSS percent as 75.
- Add baby corn to syrup and leave overnight.
- Next day, boil till TSS percent is 70 percent, boil and then cool.
- Fill murabba in a clean airtight glass jar.

Baby Corn Burfi

Ingredients

Baby Corn : 100g
Ghee : 25g
Sugar (powder) : 50g
Khoa : 50g
Cardamom powder : a pinch
Nuts : few pieces



- Wash and grate baby corn.
- ★ Take ghee in a frying pan and fry the grated baby corn till golden brown in color on slow flame.
- ❖ Add grated khoa and roast
- Add sugar and cardamom powder and keep stirring continuously so that it does not burn or stick to pan.
- Cook till the mixture start leaving the pan and gives a cooked flavour.
- Smear ghee over a plate and pour the mixture over it and spread into ½ " thick layer.
- Decorate with nuts and allow to set for sometime and then cut into pieces.

Baby Corn Halwa

Ingredients

Baby Corn : 100g
Sugar : 25g
Ghee : 20g
Water : 50 ml
Desiccated coconut : 2 tsp

Almond : 2-3 pieces



- Wash baby corn and grind to fine paste in a grinder.
- Fry baby corn paste in ghee on slow flame in thick bottomed pan till golden brown.
- Add desiccated coconut and fry for few minutes.
- Make sugar syrup seperately and add to fried baby corn.
- Cook till done and decorate with desiccated coconut and almond.

Baby Corn Kheer

Ingredients

 Baby Corn
 : 200g

 Milk
 : 1 lt.

 Sugar
 : 30g

 Rasine
 : 10 g

 Nuts
 : 10 g

 Cardamon powder
 : ¼ tspn.



- Wash baby corn and grate it finely.
- Add grated baby corn to milk and boil till it become soft and milk become thickened.
- Add cardamon powder, sugar, nuts and rasine.
- Remove from fire and allow to cool at room temperature.
- ❖ After cooling keep in refrigerator and serve cold.