



# Baby Corn

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## Introduction

Baby corn (*Zea mays*) is a popular Asian vegetable that can be consumed cooked or raw due to its sweet and succulent taste. Many people presume the tiny ears come from dwarf corn plants. In fact, baby corn is the immature ear of fully grown standard cultivars; ears are harvested two or three days after silk emergence, but prior to fertilization.

## Marketing

Fresh baby corn can be sold in the husk, through direct market channels such as farmers markets, farm stands and Community Supported Agriculture (CSA) shares. Restaurants, particularly those specializing in ethnic or vegetarian cuisine, could be more interested in purchasing fresh baby corn. Specialty grocers, CSAs, and health food stores are a potential wholesale market channel for organically grown ears. Growers desiring to produce and market organic baby corn must first be certified by a USDA-approved agency.

## Market Outlook

Most baby corn sold in the U.S. has been processed and imported from Asia, much in Thailand. Very little fresh baby corn has been available to American consumers. The reported superior taste and texture of the fresh product may provide a marketing advantage over the readily available, imported canned product. Niche market potential may also exist for organic baby corn, especially in light of continued growth in demand for organic products. It is unlikely that fresh baby corn will replace demand for canned baby corn; instead, fresh baby corn could be marketed, as a differentiated product, within the specialty produce niche.



## Production Considerations

### *Variety selection*

Many common sweet corn and field corn cultivars can be used for baby corn production. There is no taste advantage in growing a sweet corn variety over field corn, because the ears are harvested before the sugars have an opportunity to accumulate. However, sweet corn cultivars tend to be easier to hand-harvest. An important advantage of field corn is the lower seed cost. Additionally, field corn stalks tend to have stronger resistance to lodging due to the development of brace roots.

Ear quality, more than yield, should be the primary objective when selecting a variety. Small kernel size, straight row kernel alignment, and tapered tips are preferred characteristics for high quality baby corn; some buyers prefer longer ears as well. Cultivars producing plants about 6 feet in height are generally considered the easiest to hand-harvest.



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Another factor to consider in variety selection is the ease in which the ears can be pulled from the stalk without damaging the leaves and plants.

Corn varieties specifically bred for baby corn production are also available. Some of these specialty cultivars are shorter than traditional types, produce multiple stalks, and can yield as many as 20 ears per plant.

#### *Site selection and planting*

Corn will do well in all areas of Kentucky, but well-drained soils are essential for good results. In most parts of the state the earliest plantings are made between April 20 and May 1. Potential tillage/cropping systems include no-till, low-till, strip cropping, mulch till, living cover crop and intercropping.

Baby corn can be produced as either a primary crop (all ears are harvested for baby corn) or as a secondary crop (the top ear is left to mature while subsequent ears are harvested as baby corn). A close plant spacing is used when baby corn is the primary crop.

Cross-pollination with other corn varieties in adjacent fields is not a problem for baby corn when it is grown as the primary crop, as it is harvested when immature. However, when baby corn is produced as a secondary crop, cross-pollination can be a problem for those ears left to develop fully. In this case, isolation among different cultivars will be necessary. This can be accomplished by physical separation or by making sure there is a minimum of 14 days difference in the maturities of different types.

#### *Pest management*

Corn earworm is one of the most destructive insects attacking sweet corn, but since it generally attacks after silking, it may be less of a problem in baby corn. Other insect pests that can cause crop damage include European corn borers, armyworms, Japanese beetles and flea beetles. Growers producing baby corn as the primary crop will be able to avoid many of these problems since the crop is harvested so early. Additionally, baby corn ears are tightly wrapped inside the husk, which helps protect them from pest attack. Wildlife, particularly crows, geese and deer, are becoming more of a problem in many areas of Kentucky, and growers need to consider management methods to protect their plantings from damage.

Potential disease problems include Stewart's wilt, leaf blights, rust and viruses.

#### *Harvest and storage*

Baby corn is hand-harvested one to two days after silk emergence, while the ears are still immature. The ideal ear size is 2 to 4 inches long and  $\frac{1}{3}$  to  $\frac{2}{3}$ -inches in diameter. Because ears can quickly become too large and tough to be sold as baby corn, frequent harvests of every two to three days are necessary. The harvest period can last two to four weeks. To maintain ear moisture and quality, fresh baby corn, like sweet corn, is sold in the husk. Ears must be properly cooled immediately after harvest.

#### *Labor requirements*

Labor hour estimates for baby corn production are not readily available. Preharvest labor requirements are similar to sweet corn production (10 to 20 hours per acre). More harvest and packing labor, however, will be required for baby corn. Hand harvest is necessary for baby corn, and some varieties require 12 to 18 successive pickings for full baby corn harvest.

### **Economic Considerations**

Initial investments include land preparation and purchase of seed. Additional startup costs may include the installation of an irrigation system and planting equipment. Growers choosing to use a sweet corn variety may incur higher seed costs than growers using field corn for baby corn production. Field corn varieties producing multiple ears can result in higher yields, presuming the ears are of a high quality. Costs and returns will also be affected by the production method used, with cost differences if baby corn is a primary or secondary crop.

As for any new crop, growers interested in producing fresh baby corn should first locate a market and determine the market potential for quantity and price. Growers interested in costs and returns for direct marketing baby corn can modify the University of Kentucky interactive sweet corn budgets (referenced below) to estimate their cost of production.

### **Selected Resources**

- IPM Scouting Guide for Common Problems of Sweet Corn in Kentucky, ID-184 (University of Kentucky, 2010) <http://www.ca.uky.edu/agcomm/PUBS/id/id184/id184.pdf>

- Kentucky Sweet Corn Insect Integrated Pest Management Scout Manual (University of Kentucky, 1994) <http://ipm.ca.uky.edu/files/ipm10swt.pdf>
- Vegetable and Melon Budgets (University of Kentucky, 2013) <http://www.uky.edu/ccd/tools/budgets>
- Vegetable Production Guide for Commercial Growers, ID-36 (University of Kentucky) <http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm>
- Baby Corn (Washington State University) <http://agsyst.wsu.edu/babycorn.html>
- Baby Corn, PNW0532 (Pacific Northwest Extension: Washington, Oregon, Idaho, 2000) <http://cru.cahe.wsu.edu/CEPublications/pnw532/pnw0532.pdf>

- Baby Corn (Oregon State University, 2010) <http://horticulture.oregonstate.edu/content/corn-baby>
- Baby Vegetables, CCD-CP-86 (University of Kentucky, 2017) <http://www.uky.edu/ccd/sites/www.uky.edu/ccd/files/babyveggies.pdf>

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*Reviewed by Shawn Wright, UK Horticulture Specialist*  
*Photos courtesy of Carol Miles, Washington State University*

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