

# Sweet Corn

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## Varieties

*Yellow:* Bonanza, Early Sunglow, Merit, Robust Yellow

*White:* Country Gentleman, Silver Queen, Robust White

*Bicolor:* Sweet G-90

*Sugar Enhanced (Se):* Ambrosia, Bodacious, Golden Queen, Kandy Korn, Tendertreat

*Supersweet (Sh2):* Crisp-N-Sweet, Florida Staysweet, Honey n Pearl, How Sweet It Is, Mirai, Summer Sweet

## Soil Preferences

Deep, well drained, medium textured soil (pH 6-7), high in organic matter with good water holding capacity.

## Optimum Growing Conditions

Hot days and warm nights (monthly mean temperature of 68-72°F). Tassel development is hastened by days less than 12-14 hours. No significant growth when temperature is less than 50°F; intolerant of frost.

## Establishment Methods

<b>Planting Method</b>	Direct seeded (keep Se types isolated form Sh2 types, and Sh2 types for all other types)
<b>Optimum Time</b>	Soil seed zone temperature is > 65°F (no germination < 50°F)
<b>Seeding rate</b>	8-15 lbs/acre
<b>Approx seed/oz</b>	120-180
<b>Seeding depth</b>	1-2"
<b>Seedling spacing</b>	8-12" in-row on 30-40" raised beds

### Fertility/Fertilization

Rates presented as actual lbs/acre N<sub>2</sub>, P<sub>2</sub>O<sub>5</sub>, and K<sub>2</sub>O (base actual rates applied on soil test results).

Generalized rate: 100 - 80 - 80 lb/acre	
<b>N*</b>	80-100 lbs at planting 25-30 lbs side-dressed at tassel initiation
<b>P</b>	70-120 lbs banded 2-4" below seed at planting
<b>K</b>	36-100 lbs banded with N if needed (mainly in East Texas)

\* Ammonium nitrate is very stable and least likely to evaporate. Urea and ammonium sulfate evaporate if not incorporated.

### Water/Irrigation

Early maturing varieties: 20"/season

Late maturing varieties: 35"/season

Critical demand periods are at stand establishment, tassel elongation and ear enlargement. Very shallow water absorbing root systems (12-18" deep).

### Pest Management

#### Corn Diseases and Common Name of Fungicidal Controls

DISEASE	FUNGICIDE*	OMRI LISTED FUNGICIDE**
<b>Bacterial wilt</b>	1,3-Dichloropropene	
<b>Corn leaf blights and Rust</b>		Neem Oil
<b>Nematode</b>	1,3-Dichloropropene, Chloropicrin, Ethoprop, Metam-Potassium, Metam-Potassium, Metam-Sodium, Sesame Oil	Azadirachtin

#### Corn Insect Pests and Common Name of Insecticidal Controls

INSECT	INSECTICIDE*	OMRI LISTED INSECTICIDE**
<b>Aphid</b>	Bifenthrin, Chlorpyrifos, Deltamethrin, Gamma-Cyhalothrin, Lambdacyhalothrin, Methomyl, Methyl Parathion, Petroleum Oil, Potassium Salts of Fatty Acids, Soybean Oil, Zeta-Cypermethrin	Azadirachtin, Garlic Juice Extracts, Neem Oil
<b>Armyworm</b>	Beta-Cyfluthrin, Bifenthrin, Carbaryl, Carbofuran, Chlorpyrifos, Cyfluthrin,	Azadirachtin, <i>Bacillus thuringiensis</i> , Garlic

	Deltamethrin, Esfenvalerate, Flubendiamide, Lambdacyhalothrin, Malathion, Methomyl, Methyl Parathion, Permethrin, Petroleum Oil, Spinetoram, Thiodicarb, Zeta-Cypermethrin	Juice Extracts, Kaolin, Spinosad
<b>Corn Earworm</b>	Methomyl, Paraffinic Oil, Soybean Oil	Garlic Juice Extracts
<b>Flea Beetle</b>		Azadirachtin, Garlic Juice Extracts, Pyrethrins
<b>Grasshopper</b>	Beta-Cyfluthrin, Bifenthrin, Carbaryl, Chlorpyrifos, Cyfluthrin, Deltamethrin, Diazinon, Esfenvalerate, Gamma-Cyhalot, Lambdacyhalothrin, Malathion, Methyl Parathion, Zeta-Cypermethrin	Azadirachtin, Garlic Juice Extracts
<b>Wireworm</b>	1,3-Dichloropropene, Beta-Cyfluthrin, Bifenthrin, Carbofuran, Chlorethoxyfos, Chloropicrin, Chlorpyrifos, Clothianidin, Cyfluthrin, Diazinon, Ethoprop, Gamma-Cyhalothrin, Imidacloprid, Lambdacyhalothrin, Permethrin, Phorate, Tefluthrin, Terbufos, Thiamethoxam	

### Weeds and Common Name of Herbicidal Controls

<b>WEED</b>	<b>HERBICIDE*</b>	<b>OMRI LISTED HERBICIDE**</b>
<b>Preplant incorporated</b>	Atrazine, S-Metolachlor, EPTC, Alachlor, S-Dimethenamid, Pendimethalin, Surpass	Corn Gluten Meal
<b>Preemergence</b>	Atrazine, Mesotrione, S-Metolachlor, Alachlor, S-Dimethenamid, Princep, Pendimethalin, Surpass	
<b>Postemergence</b>	2,4-D, Atrazine, Accent, Carfentrazone, Bentazon, Mesotrione, Paraquat, Impact, Halosulfuron, Glyphosate, Fluroxypyr, Clopyralid	D-Limonene, Clove Oil, Cinnamon and Clove Oil

\* The above is a partial listing of controls intended as examples. Some labels may have been revoked since the publication of this guide. Refer to product labels for specifics and use accordingly. Ensure that products with one of the listed active ingredients are registered for the crop it is to be used on. Failure to do the above may result in crop injury, death and/or citation for law violation. Humans, animals and the environment may also be adversely affected by misuse.

\*\* As stated in §205.206 of the National Organic Standards, pest management decisions should

follow a hierarchical approach, which should be defined in a farm's organic systems plan. Please ensure that you have followed the appropriate steps and any product to be used in certified organic production systems has been approved by your certifying agent.

### Harvest

<b>Days after planting</b>	65-90 days
<b>Normal method</b>	Hand, but can be machine harvested
<b>Optimum stage</b>	Early milk stage of kernels
<b>Containers</b>	Bulk wagons or pallet boxes
<b>Grades</b>	Based on freedom of blemishes and injury
<b>Packaging/Handling</b>	42-50 lb wire-bound crates holding 4-6 dozen ears
<b>Anticipated yield/acre</b>	200-400 crates/acre

### Transit Conditions

Top packed boxes with ice, holding the corn at 32°F and 95-98% RH (31°F can cause freeze injury). Shelf life of 5-8 days (Sh2 varieties 10 days to 2 weeks).

### Comments/Production Keys

- Use treated seed to reduce soil borne diseases and insects
- Sh2 types produces peak sugar levels two to four times standard varieties. Pollen from other types will cause hard, ugly, starchy dent kernels on Sh2 ears so they require isolation from other types.
- Se types have higher sugar content than others but with the same rate of conversion as standard types, also requiring isolation
- Both Se and Sh2 types can experience difficulty in establishing stands
- Proper water and fertility management essential for maximizing yields
- Cultivate prior to layby only. Do not set cultivators deeper than 1-2" as serious root pruning will occur at deeper depths due to shallow nature of root system.
- Corn earworm damage can be limiting factor to commercial production
- To prevent Maize Dwarf Mosaic Virus (MDMV):
  - Plant corn early
  - Eliminate Johnsongrass from field as it can be a source of the virus and is transmitted by aphids
- Harvest ears when kernels are in early milk stage (approximately 15 days after silking)
- Immediate cooling is essential for maintaining ear quality
- Unlike other types, Sh2 types do not require immediate refrigeration
- Corn are a good crop for crop rotation with other vegetables (read herbicide labels for instruction on planting subsequent crops)