



# Celery

Dr. Joe Masabni  
 Department of Horticulture  
 Texas AgriLife Extension Service

## Varieties

Conquistador, Florida 683, Summer or Giant Pascal, Utah 52-70

## Soil Preferences

Muck soils are ideal, will grow in well drained, fertile, mineral soils (pH 6.0-7.5) with good water holding capacity.

## Optimum Growing Conditions

Celery has exacting climatic requirements, doing best when monthly mean temperature is 60-70°F. Average high temperature above 75°F in month preceding harvest limits vegetative growth and quality. Temperatures below 40-55°F induce bolting.

## Establishment Methods

<b>Planting Method</b>	Transplanting primary method as difficult to obtain uniform stands with direct seeding
<b>Optimum Time</b>	When air temperature >50°F
<b>Approx seed/oz</b>	72,000
<b>Seedling spacing</b>	Double rows with 6-8" in-row spacing on 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: 175 - 100 - 130 lb/acre*	
<b>N**</b>	150-225 half applied pre-plant, side-dress remainder beginning 3 weeks after transplanting; limit side-dressing to 25-30 lbs per application to prevent excessive growth
<b>P</b>	75-125*
<b>K</b>	100-150* (usually needed in East Texas only)
<b>Ca</b>	10 lbs/acre Calcium chloride or 15 lbs/acre calcium nitrate as a directed spray to plants may be needed if black heart is a persistent problem; can inject through irrigation water.

\* Apply all P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O pre-plant. Use 1 8oz cup starter solution per plant or dip roots prior to transplanting into starter solution (3 lbs 11-48-0 or 11-55-0 per 55 gals water).

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

### Water/Irrigation

30 - 35"; uniform distribution a must with peak demand the last month prior to harvest.

### Pest Management

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

DISEASE	FUNGICIDE*	OMRI LISTED FUNGICIDE**
Fusarium	1,3-Dichloropropene, Chloropicrin, Fludioxonil, Potassium Phosphite	<i>Bacillus subtilis</i> , <i>Streptomyces lydicus</i> , <i>Trichoderma harzianum rifai</i> , <i>Gliocladium virens</i> GI-21
Leaf blights		Neem Oil
Nematode	1,3-Dichloropropene, Chloropicrin, Metam-Potassium, Metam-Sodium, Sesame Oil	Azadirachtin
Sclerotinia (pink rot)	Metam-Potassium, Metam-Sodium	<i>Gliocladium Virens</i> GI-21, <i>Streptomyces lydicus</i>

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

INSECT	INSECTICIDE*	OMRI LISTED INSECTICIDE**
Aphid	Acetamiprid, Imidacloprid, Malathion, Naled, Permethrin, Petroleum Oil, Potassium Salts of Fatty Acids, Sodium Tetraborohydrate Decahydrate, Soybean Oil, Spirotetramat, Thiamethoxam, Zeta-Cypermethrin	Azadirachtin, Garlic Juice Extracts
Armyworm	Carbaryl, Endosulfan, Flubendiamide, Methomyl, Naled, Spinetoram, Thiodicarb, Zeta-Cypermethrin	Azadirachtin, <i>Bacillus thuringiensis</i> , Pyrethrins, Spinosad
Cutworm	Beta-Cyfluthrin, Carbaryl, Cyfluthrin, Flubendiamide, Methoxyfenozide, Permethrin, Zeta-Cypermethrin	Azadirachtin, <i>Bacillus thuringiensis</i>
Earworm		Garlic Juice Extracts
Leafhopper	Beta-Cyfluthrin, Carbaryl, Cyfluthrin,	Azadirachtin, Garlic

	Dinotefuran, Endosulfan, Imidacloprid, Paraffinic Oil, Permethrin, Petroleum Oil, Potassium Salts of Fatty Acids, Soybean Oil, Thiamethoxam, Zeta-Cypermethrin	Juice Extracts
<b>Leafminer</b>	Cyromazine, Dimethoate, Dinotefuran, Naled, Paraffinic Oil, Permethrin, Petroleum Oil, Soybean Oil, Thiamethoxam	Azadirachtin, Garlic Juice Extracts, Spinosad
<b>Looper</b>	Methomyl, Naled, Petroleum Oil, Zeta-Cypermethrin	Azadirachtin, <i>Bacillus thuringiensis</i> , Garlic Juice Extracts, Pyrethrins
<b>Mite</b>	Paraffinic Oil, Petroleum Oil, Soybean Oil	Azadirachtin, Neem Oil
<b>Weevil</b>		Azadirachtin

### Weeds and Common Name of Herbicidal Controls

<b>WEED</b>	<b>HERBICIDE*</b>	<b>OMRI LISTED HERBICIDE**</b>
<b>Preplant incorporated</b>	Bensulide, Trifluralin; Soil Fumigants: K-Pam, Metam	Corn Gluten Meal
<b>Preemergence</b>	Linuron	
<b>Postemergence</b>	Carfentrazone, Pyraflufen, Oxyfluorfen, Linuron, Sethoxydim, Glyphosate, Clethodim, Pelargonic Acid	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>	100-135
<b>Normal method</b>	Hand, but can be mechanically harvested
<b>Containers</b>	Bulk wagons
<b>Grades</b>	U.S. Extra, U.S. #1, U.S. #2 - based on uniformity, size, and defects
<b>Processing</b>	
<b>Packaging/Handling</b>	50-60 lb cartons or crates
<b>Anticipated yield/acre</b>	55,000 lbs or 2,200 cartons

### Transit Conditions

32°F and 95% RH; shelf-life 2 - 3 months.