



Cantaloupe/Muskmelon

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Varieties

Ambrosia, Caravelle, Hales Best, Israeli, Magnum 45, Mainstream, Mission, Perlita, TAM Uvalde

Soil Preferences

Adaptable to wide range of soils. Optimum soil is well-drained, medium textured, soil with pH 6.0 - 8.0. Will tolerate heavier soils than most other cucurbits.

Optimum Growing Conditions

Hot days and warm nights. Low soil and air temperatures can stunt growth. Fruit maturing with temperatures below 70°F are usually poor quality.

Establishment Methods

Planting Method	Direct seeded or transplanted
Optimum Time	Spring - when soil temperature is >70°F Fall - 80-90 days prior to average first frost date
Seeding rate	3/4 - 2 lbs/acre
Approx seed/oz	1,300
Seeding depth	0.5-1"
Seedling spacing	8-12" in-row on 78-80" bed, or 12-24" with 2 lines on 78-80" bed

Fertility/Fertilization

Rates presented as actual lbs/acre N₂, P₂O₅, and K₂O (base actual rates applied on soil test results).

Generalized rate: 120 - 70 - 70 lb/acre	
N*	40-50 lbs pre-plant + 20-30 lbs/acre; side-dress at 2-4 true-leaf stage and at vining
P	60-100 lbs banded approximately 2" below seed at planting
K	60-100 lbs (most Texas soils contain adequate potassium)

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

Water/Irrigation

Moderate water demand: 15-20" per season (may be significantly reduced with drip irrigation). Critical need periods are at establishment and vining through fruit netting.

Pest Management

Cantaloupe Diseases and Common Name of Fungicidal Controls

DISEASE	FUNGICIDE*	OMRI LISTED FUNGICIDE**
Alternaria		Clove, Rosemary And Thyme Oil, Hydrogen Dioxide, Neem Oil, <i>Streptomyces lydicus</i>
Downy mildew	Acibenzolar-S-Methyl, Chlorothalonil, Copper Sulfate, Cymoxanil, Dimethomorph, Fenamidone, Fluopicolide, Fosetyl-Al, Hydrogen Dioxide, Mancozeb, Mandpropamid, Maneb, Potassium Phosphite, Azoxystrobin, Propamocarb Hydrochloride, Cyazofamid, Pyraclostrobin, Sodium Tetraborohydrate Decahydrate, Trifloxystrobin	<i>Bacillus pumilus</i> , <i>Bacillus subtilis</i> , Clove, Rosemary and Thyme Oil, Copper Hydroxide, Cuprous Oxide, Extract of <i>Reynoutria sachalinensis</i> , Hydrogen Peroxide, Neem Oil, <i>Streptomyces lydicus</i>
Gummy stem blight	Potassium Phosphite, Azoxystrobin, Chlorothalonil, Copper Sulfate, Kresoxim-Methyl, Mancozeb, Maneb, Paraffinic Oil, Polyoxin D Zinc Salt, Pyraclostrobin, Tebuconazole, Thiophanate-Methyl	Copper Hydroxide, <i>Bacillus subtilis</i> , Cuprous Oxide, Extract of <i>Reynoutria Sachalinensis</i> , Hydrogen Dioxide
Powdery mildew	Acibenzolar-S-Methyl, Azoxystrobin, Copper Sulfate, Hydrogen Dioxide, Kaolin, Myclobutanil, Paraffinic Oil, Polyoxin D Zinc Salt, Potassium Phosphite, Potassium Salts of Fatty Acids, Kresoxim-Methyl, Pyraclostrobin, Quinoxifen, Sodium Tetraborohydrate Decahydrate, Sulfur, Tebuconazole, Thiophanate-Methyl, Trifloxystrobin, Triflumizole	<i>Streptomyces lydicus</i> , Potassium Bicarbonate, <i>Bacillus subtilis</i> , Clove, Rosemary and Thyme Oil, Copper Hydroxide, Cuprous Oxide, Extract of <i>Reynoutria Sachalinensis</i> , Hydrogen Peroxide, Neem Oil
Nematode	1,3-Dichloropropene, Chloropicrin, Metam-Potassium, Metam-Sodium, Sesame Oil	Azadirachtin

Vine decline	Chlorothalonil, Fludioxonil, Thiophanate-Methyl	
Viruses	Paraffinic Oil	

Cantaloupe Insect Pests and Common Name of Insecticidal Controls

INSECT	INSECTICIDE*	OMRI LISTED INSECTICIDE**
Aphid	Acetamiprid, Bifenthrin, Diazinon, Dimethoate, Endosulfan, Fenpropathrin, Imidacloprid, Lambdacyhalothrin, Malathion, Naled, Oxydemeton-Methyl, Permethrin, Petroleum Oil, Potassium Salts of Fatty Acids, Sodium Tetraborohydrate Decahydrate, Soybean Oil, Thiamethoxam, Zeta-Cypermethrin	Azadirachtin, Garlic Juice Extracts, Neem Oil, Pyrethrins
Cutworm	Beta-Cyfluthrin, Bifenthrin, Carbaryl, Cyfluthrin, Deltamethrin, Diazinon, Esfenvalerate, Flubendiamide, Lambdacyhalothrin, Permethrin, Zeta-Cypermethrin	Azadirachtin, <i>Bacillus thuringiensis</i>
Leafminer	Abamectin, Cyromazine, Deltamethrin, Dimethoate, Lambdacyhalothrin, Naled, Paraffinic Oil, Permethrin, Petroleum Oil, Spinetoram, Thiamethoxam, Thiamethoxam, Zeta-Cypermethrin	Azadirachtin, Garlic Juice Extracts, Spinosad
Looper	Methomyl, Naled	Azadirachtin, <i>Bacillus thuringiensis</i> , Garlic Juice Extracts, Pyrethrins
Melonworm	Acetamiprid, Beta-Cyfluthrin, Bifenthrin, Carbaryl, Chlorantraniliprole, Cryolite, Cyfluthrin, Deltamethrin, Diazinon, Endosulfan, Flubendiamide, Indoxacarb, Lambda-Cyhalothrin, Methomyl, Methoxyfenozide, Permethrin, Spinetoram, Zeta-Cypermethrin	Azadirachtin, <i>Bacillus thuringiensis</i> , Spinosad
Mite	Oxydemeton-Methyl, Paraffinic Oil, Petroleum Oil, Sodium Tetraborohydrate Decahydrate,	Azadirachtin, Garlic Juice Extracts, Neem Oil

	Soybean Oil	
Thrips	Diazinon, Dimethoate, Dinotefuran, Fenpropathrin, Imidacloprid, Lambdacyhalothrin, Petroleum Oil, Potassium Salts of Fatty Acids, Sodium Tetraborohydrate Decahydrate, Soybean Oil, Spinetoram, Thiamethoxam	Azadirachtin, Garlic Juice Extracts, Pyrethrins, Spinosad
Whitefly	Beta-Cyfluthrin, Bifenthrin, Cyfluthrin, Deltamethrin, Dinotefuran, Endosulfan, Fenpyroximate, Fosetyl-Al, Imidacloprid, Lambdacyhalothrin, Paraffinic Oil, Petroleum Oil, Potassium Salts of Fatty Acids, Sodium Tetraborohydrate Decahydrate, Soybean Oil, Spiromesifen, Thiamethoxam	Azadirachtin, Neem Oil, Pyrethrins

Weeds and Common Name of Herbicidal Controls

WEED	HERBICIDE*	OMRI LISTED HERBICIDE**
Preplant incorporated	Clomazone, Ethalfluralin, DCPA, Bensulide, Trifluralin	Corn Gluten Meal
Preemergence	Ethalfluralin, DCPA	
Postemergence	Carfentrazone, Oxyfluorfen, Paraquat, Halosulfuron, Sethoxydim, Glyphosate, Pelargonic Acid, Clethodim	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

Days after planting	Usually harvested at the 3/4 slip stage. Fields may be harvested 5-10 times over 3-week period. Direct seeded - 85-95 Transplanted - 70-80
Normal method	Hand harvested using harvest aid machinery
Containers	Bulk wagons
Grades	Based on fruit diameter and freedom from defects
Packaging/Handling	9, 12, 18, or 23 fruit/half carton (approximately 38-41 lbs) Sometimes bulk loaded Usually hydro-cooled to remove field heat and chlorine-treated prior to packing
Anticipated yield/acre	7-9 tons

Transit Conditions

32-41°F at 95% RH (freeze injury 30°F). Shelf-life - 1-2 weeks.

Comments/Production Keys

- Avoid heavy clay soils having poor aeration and drainage
- Plants extremely cold sensitive (night temperature < 50°F stunts growth)
- Crop well adapted to plastic mulch/drip irrigation culture; results in increased earliness, quality and percent packed out
- Plastic mulched and drip irrigated crop responds well to fertigation
- Extreme care required during harvesting and handling to avoid bruising and increased decay during transit
- Chlorine-treat fruit prior to packing and/or direct sales to avoid potential of salmonella and cholera contamination
- Excessive nitrogen delays maturity and reduces fruit quality
- Moisture received after netting can reduce soluble solids and subsequent fruit quality
- Bright sunshine during fruit maturity enhances soluble solids and quality. Conversely, cloudy overcast skies reduce soluble solids, sweetness, in fruit.