



Cauliflower

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Varieties

Averda (green), Brocoverde, Cheddar (orange), Graffiti (purple), Imperial, Majestic, Panther (green), Snow Crown, Snowball Y Improved, Violet Queen (purple)

Soil Preferences

Fertile, medium textured, well-drained soils; can be grown on a wide range of soil pH (6.0 - 7.8) and is well suited to the higher pH level.

Optimum Growing Conditions

Cool temperatures: days 55-70°F, nights 45-55°F. Does not tolerate heat.

Establishment Methods

Planting Method	Direct seeded or transplanted
Optimum Time	Spring - >40° Fall - <100°
Seeding rate	0.5-1.5lb/acre (precision planting 0.25-0.5)
Approx seed/oz	9,000
Seeding depth	0.25"
Seedling spacing	12-18" in-row with one row on 36-40" raised bed

Fertility/Fertilization

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

Generalized rate: 150 - 85 - 60 lb/acre	
N*	150-175 half pre-plant + 1-2 side-dressings 2-4 weeks prior to anticipated harvest
P	70-100 banded 2" below seed at planting
K	60-120 (not needed in most areas of Texas)

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

Water/Irrigation

20 - 30" total; uniform consistent moisture supply needed for Optimum yield. Key stages are during stand establishment and 6-7 leaf stage. Do not over water during first 4-5 weeks after direct seeding or 2-3 weeks after transplanting.

Pest Management

Cauliflower Diseases and Common Name of Fungicidal Controls

DISEASE	FUNGICIDE*	OMRI LISTED FUNGICIDE**
Alternaria		Clove, Rosemary and Thyme Oil, Copper Hydroxide, Neem Oil, <i>Streptomyces lydicus</i>
Black rot	Acibenzolar-S-Methyl, Copper Sulfate, PCNB	<i>Bacillus subtilis</i> , Clove, Rosemary and Thyme Oil, Copper Hydroxide, Cuprous Oxide
Damping-off	Fludioxonil, PCNB, Thiram	
Downy mildew	Acibenzolar-S-Methyl, Chlorothalonil, Copper Hydroxide, Copper Sulfate, Dimethomorph, Fenamidone, Fluopicolide, Fosetyl-Al, Mandpropamid, Maneb, Mefenoxam, Potassium Phosphite, Azoxystrobin, Pyraclostrobin, Sodium Tetraborohydrate Decahydrate	<i>Bacillus pumilus</i> , <i>Bacillus subtilis</i> , Clove, Rosemary and Thyme Oil, Cuprous Oxide, Extract of <i>Reynoutria Sachalinensis</i> , Hydrogen Dioxide, Neem Oil, Potassium Bicarbonate, <i>Streptomyces lydicus</i>
Nematode	1,3-Dichloropropene, Chloropicrin, Metam-Potassium, Metam-Sodium, Sesame Oil	Azadirachtin

Cauliflower Insect Pests and Common Name of Insecticidal Controls

INSECT	INSECTICIDE*	OMRI LISTED INSECTICIDE**
Aphid	Acetamiprid, Bifenthrin, Cypermethrin, Diazinon, Dimethoate, Dinotefuran, Gamma-Cyhalothrin, Imidacloprid, Lambdacyhalothrin, Malathion, Naled,	Azadirachtin, Garlic Juice Extracts, Neem Oil, Pyrethrins,

	Oxydemeton-Methyl, Petroleum Oil, Potassium Salts of Fatty Acids, Sodium Tetraborohydrate Decahydrate, Soybean Oil, Spirotetramat, Thiamethoxam, Zeta-Cypermethrin	
Armyworm	Beta-Cyfluthrin, Bifenthrin, Carbaryl, Chlorpyrifos, Cyfluthrin, Cypermethrin, Endosulfan, Gamma-Cyhalothrin, Lambdacyhalothrin, Novaluron, Permethrin, Spinetoram, Zeta-Cypermethrin	Azadirachtin, <i>Bacillus Thuringiensis</i> Pyrethrins, Spinosad
Beetle		Azadirachtin, Garlic Juice Extracts, Pyrethrins
Cutworm	Beta-Cyfluthrin, Bifenthrin, Carbaryl, Chlorpyrifos, Cryolite, Cyfluthrin, Cypermethrin, Diazinon, Endosulfan, Esfenvalerate, Flubendiamide, Gamma-Cyhalothrin, Lambdacyhalothrin, Methoxyfenozide, Zeta-Cypermethrin	Azadirachtin, <i>Bacillus thuringiensis</i>
Looper	Bifenthrin, Cypermethrin, Methomyl, Naled, Petroleum Oil	Azadirachtin, <i>Bacillus thuringiensis</i> , Garlic Juice Extracts, Pyrethrins
Moth		Azadirachtin
Thrips	Acetamiprid, Beta-Cyfluthrin, Bifenthrin, Cyfluthrin, Dinotefuran, Gamma-Cyhalothrin, Imidacloprid, Lambdacyhalothrin, Novaluron, Permethrin, Petroleum Oil, Potassium Salts of Fatty Acids, Soybean Oil, Spinetoram, Thiamethoxam	Azadirachtin, Neem Oil, Peppermint and Rosemary Oil, Pyrethrins, Spinosad
Whitefly	Beta-Cyfluthrin, Bifenthrin, Cyfluthrin, Cypermethrin, Endosulfan, Gamma-Cyhalothrin, Imidacloprid, Lambdacyhalothrin, Novaluron, Paraffinic Oil, Petroleum Oil, Potassium Salts of Fatty Acids, Sodium Tetraborohydrate Decahydrate, Soybean Oil, Spiromesifen, Spirotetramat, Thiamethoxam, Zeta-Cypermethrin	Azadirachtin, Garlic Juice Extracts, Neem Oil, Pyrethrins

Weeds and Common Name of Herbicidal Controls

WEED	HERBICIDE*	OMRI LISTED HERBICIDE**
Preplant incorporated	Clomazone, DCPA, Napropamide, Bensulide, Trifluralin	Corn Gluten Meal
Preemergence	DCPA, Napropamide	
Postemergence	Carfentrazone, Oxyfluorfen, Paraquat, 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	50-125
Normal method	Hand
Containers	Bulk wagons
Grades	U.S. #1 - uniform heads 4" minimum diameter, free of blemishes and discoloration
Packaging/Handling	2 layer cartons, 12-16 trimmed heads/carton
Anticipated yield/acre	400+ cartons

Transit Conditions

32°F at 95-98% RH. Shelf life 3-4 weeks.

Comments/Production Keys

- Cauliflower more difficult to grow than other brassicas due to its exacting environmental requirements. Erratic conditions in Texas often do not favor successful production.
- Two key growth stages: juvenile and mature vegetative.
- Length of juvenile stage varies according to variety and is correlated to number of leaves developed prior to curd initiation (curds will not form in this stage).
- Curd initiation can be delayed in mature vegetative stage by high temperatures (>80°F).

- Curds can be prematurely triggered (button) by moisture stress or periods of cold (50-60°F) following warm growing conditions in the vegetative stage.
- Daily mean of 58-68°F ideal for quality curd formation and development; temperature above 68°F during curd development often results in poor quality. Some newer hybrids have ability to develop heads at 68-80°F.
- Most varieties require tying to keep curds white. Tying should be done when heads approximately 1" in diameter. Wrapper leaves are tied with string or bound with rubber bands.
- Broccoflower types are actually green cauliflower but do not require tying.
- Heads harvested when approximately 5-6" in diameter. Begin when 10% of heads reach this size and continue at 4-8 day intervals.