

Pumpkin

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Varieties

Small: Baby Bear, Jack Be Little, Munchkin, Mystic, Small Sugar, Triple Treat

Medium: Bumpkin, Howden, Jack O' Lantern

Large: Aladdin, Big Max, Connecticut Field, Fairytale, Magic Lantern, Merlin, Prizewinner

Soil Preferences

Well drained, sandy loams with pH range 6.5 - 7.5; avoid heavy soils.

Optimum Growing Conditions

- Monthly mean temperature 60-80°F
- Day temperature 85-95°F
- Night temperature 60-70°F
- Low humidity

Cold sensitive crop.

Establishment Methods

Planting Method	Direct seeded or transplanted
Optimum Time	60-70°F soil temperature at 3-4" depth, or 75-120 days (depending upon variety) prior to intended market window.
Seeding rate	2-5 lbs/acre
Approx seed/oz	100-300
Seeding depth	0.5 - 0.75"
Seedling spacing	<i>Large Vine types</i> - 18-24" in-row on 8-10' beds <i>Compact Vine types</i> - 18-24" in-row on 80" wide beds Raised bed culture advisable

Fertility/Fertilization

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

Generalized rate: 50 - 40 - 40 lb/acre	
N*	20-80; 10-20 lbs applied pre-plant with the remainder side-dressed when vines begin to run
P	30-80 banded approximately 2-3" below seed at planting.
K	0-80 pre-plant applied when needed

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

Water/Irrigation

25 - 30" applied and/or received in 5 - 7 applications. Critical demand periods:

- Establishment
- 2-4 weeks after emergence
- Bloom
- Fruit set
- Enlargement

Pest Management

Pumpkin Diseases and Common Name of Fungicidal Controls

DISEASE	FUNGICIDE*	OMRI LISTED FUNGICIDE**
Alternaria and Anthracnose		Clove, Rosemary and Thyme Oil, Hydrogen Dioxide, Neem Oil, <i>Streptomyces lydicus</i>
Downy mildew	Acibenzolar-S-Methyl, Azoxystrobin, Chlorothalonil, Copper Sulfate, Cyazofamid, Cymoxanil, Dimethomorph, Fenamidone, Fluopicolide, Fosetyl-Al, Mandpropamid, Maneb, Potassium Phosphite, Propamocarb Hydrochloride, Pyraclostrobin, Sodium Tetraborohydrate Decahydrate, Trifloxystrobin	<i>Bacillus subtilis</i> , Clove, Rosemary and Thyme Oil, Copper Hydroxide, Cuprous Oxide, Extract of <i>Reynoutria Sachalinensis</i> , Hydrogen Dioxide, Neem Oil, Potassium Bicarbonate, <i>Streptomyces lydicus</i>
Fruit rot	Potassium Phosphite, Potassium Bicarbonate	
Gummy stem blight	Azoxystrobin, Chlorothalonil, Copper Sulfate, Kresoxim-Methyl, Paraffinic	<i>Bacillus subtilis</i> , Copper Hydroxide, Cuprous Oxide,

	Oil, Polyoxin D Zinc Salt, Potassium Phosphite, Pyraclostrobin, Tebuconazole, Thiophanate-Methyl	Extract of <i>Reynoutria sachalinensis</i> , Hydrogen Dioxide
Nematodes	1,3-Dichloropropene, Chloropicrin, Metam-Potassium, Metam-Sodium, Sesame Oil	Azadirachtin
Powdery mildew	Acibenzolar-S-Methyl, Azoxystrobin, Boscalid, Copper Sulfate, Kaolin, Kresoxim-Methyl, Myclobutanil, Paraffinic Oil, Polyoxin D Zinc Salt, Potassium Phosphite, Potassium Salts of Fatty Acids, Pyraclostrobin, Quinoxifen, Sodium Tetraborohydrate Decahydrate, Sulfur, Tebucanzole, Thiophanate-Methyl, Trifloxystrobin, Triflumizole	<i>Bacillus pumilus</i> , <i>Bacillus subtilis</i> , Clove, Rosemary and Thyme Oil, Copper Hydroxide, Cuprous Oxide, Extract of <i>Reynoutria sachalinensis</i> , Hydrogen Dioxide, Neem Oil, Potassium Bicarbonate, <i>Streptomyces lydicus</i> , Potassium Bicarbonate
Virus	Paraffinic Oil	

Pumpkin Insect Pests and Common Name of Insecticidal Controls

INSECT	INSECTICIDE*	OMRI LISTED INSECTICIDE**
Aphid	Acetamiprid, Bifenthrin, Endosulfan, Imidacloprid, Lambdacyhalothrin, Malathion, Oxamyl, 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
Leafminer	Abamectin, Cyromazine, Deltamethrin, Dinotefuran, Lambdacyhalothrin, Malathion, Paraffinic Oil, Permethrin, Petroleum Oil, Soybean Oil, Thiamethoxam, Zeta-Cypermethrin	Azadirachtin, Garlic Juice Extracts, Spinosad
Looper		Azadirachtin, <i>Bacillus thuringiensis</i> , Garlic Juice Extracts, Pyrethrins
Melonworm	Acetamiprid, Beta-Cyfluthrin, Bifenthrin, Carbaryl, Chlorantraniliprole, Cryolite, Cyfluthrin, Deltamethrin, Endosulfan, Flubendiamide, Indoxacarb, Lambdacyhalothrin, Methoxyfenozide, Permethrin, Spinetoram, Zeta-	Azadirachtin, <i>Bacillus thuringiensis</i> , Spinosad

	Cypermethrin	
Rootworm	Abamectin, Cyromazine, Deltamethrin, Dinotefuran, Lambdacyhalothrin, Malathion, Paraffinic Oil, Permethrin, Petroleum Oil, Soybean Oil, Thiamethoxam, Zeta-Cypermethrin	Azadirachtin, Garlic Juice Extracts, Spinosad
Spider Mite	Abamectin, Fenpropathrin, Lambdacyhalothrin, Malathion, Potassium Salts of Fatty Acids	Neem Oil
Squash Vine Borer	Acetamiprid, Bifenthrin, Endosulfan, Esfenvalerate, Flubendiamide, Lambdacyhalothrin, Malathion, Permethrin, Zeta-Cypermethrin	
Whitefly	Beta-Cyfluthrin, Bifenthrin, Cyfluthrin, Deltamethrin, Dinotefuran, Endosulfan, Fosetyl-AI, Imidacloprid, Lambdacyhalothrin, Paraffin Oil, Petroleum Oil, Potassium Salts of Fatty Acids, Sodium Tetraborohydrate Decahydrate, Soybean Oil, Spiromesifen, Thiamethoxam	Azadirachtin, Garlic Juice Extracts, Neem Oil, Pyrethrins

Weeds and Common Name of Herbicidal Controls

WEED	HERBICIDE*	OMRI LISTED HERBICIDE**
Preplant incorporated	Clomazone, Ethalfluralin, Bensulide, Trifluralin	Corn Gluten Meal
Preemergence	Ethalfluralin	
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	75-120
Normal method	Hand, when rind and stem harden and skin is bright orange
Containers	Bulk wagons, pallet boxes
Grades	Uniformity of size, shape, color
Packaging/Handling	Do not stack more than 4 layers of fruit high
Anticipated yield/acre	15,000-25,000 lbs/acre

Transit Conditions

50-55°F at 70-75% RH

Comments/Production Keys

* Always arrange for markets prior to planting.

- *Cucurbita pepo* and *C. maxima* species grow well in Texas
- Fertile soils are necessary to obtain maximum yield and fruit quality
- Responds well to plastic mulch culture
- Do not plant into cold soils, as weak slow growing non-productive plants will result
- Pumpkins are shallow rooted plants, so uniform moisture is required
- To obtain extremely large fruit, constantly good soil moisture and pruning to 1-2 fruit per plant is required
- Use of bees enhances flower pollination and yields
- Windbreaks (Elbon Rye, TAMU 105 and Tascosa Wheat, Triticale) planted in early-mid fall is beneficial in areas prone to prevailing winds
- Thorough foliage coverage with fungicides is necessary for good disease control
- Leaving pumpkins in field after foliage dies reduces quality by causing shoulder bleaching
- Extended exposure to temperature below 50°F in the field results in chill injury
- Appearance is critical (size, shape, color). Consumers prefer intact stems; handle with care to avoid bruising skin.
- Three to five year crop rotations between pumpkins and other cucurbits should be followed to avoid disease buildup in soil. Always use fungicide treated seed.