

Pumpkins (*Cucurbita pepo* and *Cucurbita maxima*) grow well and attain high quality in this region. Premium prices

GROWER GUIDE PUMPKIN GROWING AND MARKETING ON THE HIGH & ROLLING PLAINS OF WEST TEXAS

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are offered only for deep orange, well formed fruits. Consumers prefer an intact stem. Careful attention to soil fertility, irrigation management, insect and disease control and gentle harvesting-handling pays dividends because "looks is everything" in the pumpkin business. Be sure to make market contacts and arrangements before planting and follow up with additional situation reports to buyers through the season. These contacts will maintain their confidence in your ability to deliver a desirable product. Seed sources are listed on Pages 6 and 7.

Varieties

Very Small Fruited

Jack-Be-Little: 95 days; 2'X 3" diameter; plump-flat, deeply ribbed pumpkin weighing 3 to 4 oz.; dark orange skin; firm, dark orange flesh; A unique miniature pumpkin that fits in the palm of your hand. Cure fully on the plant to give maximum shelf life (up to 12 months); For decoration. Seed Source: 1, 3, 7.

Munchkin: Early; 3'X 4" diameter; flattened, scalloped miniature pumpkin; 4 oz; orange-yellow skin; well suited for arrangements and fall decorations. Seed Source: 6

Small Fruited

Small Sugar: 90 days; small flat globe. B' X 10", 6 to 10 lbs.; deep orange, ribbed skin; deep orange, thick, sweet flesh; best pumpkin for pies, also decorative. Seed Sources: 1, 2, 3, 4, 5, 7.

Triple Treat: 100 days; round, 8" to 10" diameter, 6 to 8 lbs.; deep orange, fine grained flesh; for pies; seeds are hullless, high in protein, tasty and can be eaten raw or roasted, also decorative. Seed Sources: 3.

Streaker: 90 days; small globe, 9'X 9', 8 lbs.; deep orange, smooth skin; thick, deep orange sweet flesh for pies, hullless seeds tasty when dried raw or dry roasted. Seed Source: 4.

Spookie: 100 days; small globe, 6' X 6", 6 lbs.; bright orange skin; orange-yellow flesh; uniform size, good for pies and decorative. Seed Source: 6

Bushkin: 95 days; 8 to 10 lb.; wsmall vine (5 to 6') produce 1 to 3 fruit each; golden orange skin; yellow flesh; edible seeds. Seed Source: 3.

Mini Jack: 100 days; 5" X 5", round; bright orange skin; semi-determinate vine habit; naked seed; decorative and seed for snacks. Seed Sources: 4, 7.

Medium Size Fruit

Autumn Gold (Hybrid): 90 days; 12' diameter, 8 to 10 lbs; golden orange color; yellow orange thick flesh; an ~~North American selection; easily Seed Sources: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 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991, 992, 993, 994, 995, 996, 997, 998, 999, 1000~~ early harvest; well suited to

Big Autumn Gold (Hybrid): 90 days; 14' diameter; 16 lb.; bright orange skin; thick deep orange flesh; semibrush; larger than Autumn Gold. Seed Source: 1.

Jack O'Lantern: 100 days; 10" to 15" diameter; 10 to 15 lbs.; bright orange skin; thick deep orange flesh; 10 to 15 lbs.; for decoration. Seed Sources: 2, 3, 4, 5, 7.

Funny Face (Hybrid): 90 days; deep round, 12' diameter, 12 to 15 lbs.; bright orange skin: thick, yellow flesh: Semibrush, compact 5-foot vine, high yielder and good keeper. Seed

Trick or Treat (Hybrid): 105 days; 11' X 14'; 10 to 12 lb.; orange flesh; dark orange skin; fairly smooth, ribbed rind; good carver; naked seed; produces short runner after fruit set. Seed Source: 1.

Jackpot: 100 days; deep round, 10" to 15' diameter; glossy yellow-orange; orange flesh; compact vine, heavy yielder. Seed Source: 6.

Spirit: 96 days; deep round, 12" diameter; bright orange; big yields. Seed Source: 1.

Large Size-Fruit

Howden: 110 days; deep round; 12" to 15" diameter; 15 to 25 lbs.; dark orange skin; coarse, pale orange flesh; big vine, good yielder. Seed Sources: 1, 7.

Happy Jack: 100 days; similar to howden; 14' to 16" diameter; 16 to 22 lbs.; dark orange skin; thick orange flesh; medium ribs; strong stems. Seed Source: 1.

Connecticut Field: 115 days; Flat round, 15" to 20" diameter, 15 to 25 lbs.; dark orange skin; coarse, pale orange flesh; big vine, good yielder. Seed Sources: 1, 2, 3, 4, 5, 6, 7.

Ghost Rider: 115 days; 12' to 16' diameter; 15 to 20 lbs.; dark orange, ridged, hard skin; long heavy stem. Seed Sources: 3, 7.

Mexican Candy Pumpkin: 120 days; long straight, thick neck ending in enlarged seed cavity (shaped much like Hercules Butterut but much larger). 6" to 8" diameter X 24" to 30" length; dark gray/orange at maturity; 15 to 25 lbs; used in pumpkin candy, empanadas, and ornamentals. Seed Source: 8.

ProGold #500 (Hybrid) 95 days; 12 - 14"; 18 - 22 lbs.; medium deep ribs; thick flesh; bright orange skin. Seed Source: 1.

ProGold #510 (Hybrid): 95 days; Howden type; tall, round; 14 - 16"; 22 - 26 lbs.; deep orange skin, thick flesh. Seed Source: 1.

Pankow's Field: Late mid-season; deep diameter; 20 to 30 lbs.; dark orange skin; large sturdy handles (stem) well anchored; variable shapes. Seed Source: 6.

Atlantic Giant, Big Mac 115 to 120 days; variable sizes, 20" to over 40" diameter, weigh 50 to more than

Big Max, Big Moon
Prizewinner:

200 lbs; Atlantic Giant has exceeded 600 lbs; light orange to orange skin and pink-orange flesh; big vine, requires high fertility and constantly good soil moisture and pruning to only 1 to 2 fruits per vine to make advertised huge sizes. Seed sources: Atlantic Giant, 7; Big Mac, 4; Big Max, 1,2,3,4,5,6,7; Big Moon, 1; Prizewinner, 3.

* The listing of these cultivars does not imply that others are not adapted to the High Plains, nor does it signify a recommendation to the exclusion of others of suitable characteristics.

Soil Fertility

A soil test from a competent soil chemist, such as the Extension Soil Testing Laboratory in College Station, is strongly advised. Pumpkins attain highest yield and quality only on fertile soils. Banding only phosphorus under the seed increases efficiency of use by plant as compared to broadcasting, prevents phosphorus-induced trace element deficiency, and stimulates stronger seedling growth. Apply 1/3 of the nitrogen, and all phosphorus and potassium preplant and 2/3 of the nitrogen as a sidedressing at the 3 to 4 true leaf stage. On vining varieties the nitrogen can be spread out over more soil surface.

Application Rate In Pounds Per Acre Of
Fertilizer Nitrogen, Phosphorus and Potassium
At Different Possible Nutrient Levels of Soil Analyzed
By The Texas Agricultural Soil Testing Laboratory At Lubbock

Soil Test Nutrient Level	Broadcast Application Rate in Pounds Per Acre		
	N	P ₂ O ₅	K ₂ O
VL	60	80	80
L	50	60	60
M	40	40	40
H	20	30	0
VH	0	0	0

Rotation

Allow at least 3 years between pumpkin crops or between pumpkins and cucumbers, squash, cantaloupe or watermelon to prevent disease carryover.

Seed Quality & Seed Treatment & Seeding Required

Accept only high quality seed of over 85% germination. Have it treated with fungicide or treat it yourself with Captan 75W or Orthocide® fungicide before planting. Seeding rate: 2 to 5 lbs. per acre depending on seed size, germination, row and bed spacing.

Plant Spacing Alternatives & Seeding Depth

- ¿For large vine varieties: 8 to 10 feet between rows and a plant every 18" to 24" in the row.
- ¿For compact bush varieties: 80 inches between rows and a plant every 18" to 24" in the row.
- ¿Plant seed 1 1/2 to 1 3/4 inches deep in sandy loam soils, but not more than 1" deep in clay loam soils.
- ¿Some growers plant Howdens in hills 4 feet apart on beds 40" apart, two rows in - 2 rows out. Seeding depth best at 1 1/2 to 1 3/4 in clay loam, and 1 1/2 to 2" in sandy loam.

Planting Dates

Plant only after the soil temperature reaches 65°F. (18°C.) 4" to 6" depth and the long term forecast indicates warming. In the Rolling Plains this soil temperature is usually reached around May 1; in the South Plains about mid May, and in the Panhandle about June 1. Do not sow seed in cold soil. Pumpkin seeds which have taken a long time to sprout usually produce weak seedlings which never attain the vigor to produce maximum yields and quality. Pumpkins require 90 to 120 days to fully mature and should be ready for prospective buyers to inspect by mid September.

Windbreak Crops

Windbreaks will protect the tender pumpkin plants from sand blasting, slow the evaporation of moisture from the seed bed, reduce transpiration of water vapor from the leaves and keep the air and soil around the plants warmer. Elbon Rye, TAMU 105 and Tascosa wheat and Triticale make a strong vigorous windbreak crop when sown in early to mid September.

Irrigation

Plan to use 20 to 30 inches irrigation water depending on soil type, rain fall, and windbreaks.

	No. 1: Preplant = 3 - 4 inches
Timing is	No. 2: At emergence or to break crust = 1 - 2 inches
variable.	No. 3: 2 weeks after emergence = 3 - 4 inches
These are	No. 4: 4 weeks after emergence = 3 - 4 inches
estimates,	No. 5: During bloom and fruit set = 3 - 4 inches
based on field	No. 6: During fruit enlargement = 3 - 4 inches
experience.	No. 7: During fruit enlargement - 3 - 4 inches

_____ Total = 20 - 30 inches

Disease Control

Powdery Mildew: First spray when vines start to run, and repeat every two weeks. Usually starts when the plants are loaded with fruit and the nights cool down enough to cause a morning dew. Complete coverage of leaf surfaces is essential for control. Bravo 720 @ 3 pts./acre.

Ascochyta Fruit Rot-
Gummy Stem Blight: Plant on high profile, wide beds. Please use disease-free seed. Use 3 to 4 year rotation. Spray Bravo 720 at 7 to 10-day intervals during fruit enlargement. Complete coverage of leaves and fruit surface is essential for control.

Angular Leaf Spot,
Anthracnose,
Powdery Mildew, and
Altemada: Spray to get complete coverage of foliage with Bravo 720. Any part of the leaf surface that is not covered with a film of fungicide is open to infection. Prevention is probable if spray repeated every two weeks.

Insect Control

Squash Bug.-Cucumber
Beetle, and Squash
Vine Borer: Squash bugs lay shiny brown eggs on leaf underside. Young squash bugs are small gray bugs with black legs. Direct spray to underside of leaves, to stems, and to base of stem at soil line. Spray at emergence when beetles are first noticed. Cucumber beetles infect plants with bacterial wilt. Spray field borders. Spray to cover base of

plant for squash vine borer when adult moth (which has metallic blue front wings and body ringed with bright red, black and copper) are found flying in the field.

Aphid:

~~Keep field free of weeds to young plants~~ when aphids are noticed on underside of leaves.

EPA Registered Pest Control Chemicals

Labelled Herbicides

Preplant	Preemergence	Postemergence
Amiben (weak)	Amiben (weak)	Poast (grasses)
Command 4-EC (rotate to anytime)	Command 4-EC (rotate to anytime)	
Gramoxone Extra	Prefar 4-E	
Roundup		

Labelled Soil Fumigants

Telone - for nematodes
Vorlex - for nematodes, weeds

Labelled Fungicides

Bravo 720 - angular leaf spot, downy mildew, alternada, anthracnose, gummy stem blight-black rot, powdery mildew, and *Spaerotheca fuliginea*.

Do not use spreaders or stickers or wetting agents with Bravo. Demonstrations in Floyd County show Bravo 720 superior to other fungicides for preventing powdery mildew.

Labelled Insecticides

Ambush - squash bug, others	Kelthane - spider mite
Asana - squash bug, others	Metasystox-R - aphid, others
Biobit (BT) - worms	Pounce - squash bug, aphid
Dylox - Squash bug, variegated cutworm	Sevin - leafhopper
Furadan - Aphid, beetles, others	Thiodan - squash bug, others
Javelin - worms	Vydate - thrips, others

Harvesting, Handling, Storage

Harvest when the pumpkin reaches full size, the rind and stem harden and the skin is bright, deep orange. Leaving pumpkins in the field after the foliage has died hurts quality. Sun bleaches the shoulder's of the fruit. Fruit in contact with moist soil may begin to rot. Rodents and soil insects eat into the rind. These are some of the reasons for getting pumpkins under cover. Cut vine away from the fruit stem with sharp pruning clippers. Lift pumpkins without touching stem. Set them down easy to prevent cracking. Pile them on pallets in a well aerated shed or barn to await shipment. The Small Sugar pumpkin can be stored for 2 or 3 month at 50' to 55°F. and 70% to 75% relative humidity. Pile pumpkins no more than 3 to 4 fruits deep to prevent bruising, cracking and loss of the stem.

Pumpkin Seed Source

1. Abbott & Cobb, Inc., P.O. Box 381 Muleshoe, TX 78347, Dick Chitwood, Phone (806-272-4625).
2. ~~207-888-8328~~ Grow Seed Co., 717 Cedar Street, McAllen, TX 78501, Ron Smith, Phone 210-971-0025, Mobile 210-
6512-6824-4313
3. W. Atlee Burpee Company, Inc., 300 Park Avenue, Warminster, PA 18991.
4. Sunseeds, Inc., P.O. Box 720063, McAllen, TX 78504, Mike McLarty, Phone (512) 381-4278.
5. ~~6512-6824-4313~~ Horse Seed Company, 1005 East Highway 83, McAllen, TX 78501, Richard DeLos Santos, Phone
6. Harris-Moran Seed Company, Inc., 6200 S. 35th St., Suite D, McAllen, TX 78503, Jana Middleton, Phone (512) 686-5412.
7. Willhite Melon Seed Farms, P.O. Box 23, Poolville, TX 76076 or Box 85, Weatherford, TX 76086. Phone (817) 594-7519.
8. Craig Edwards, Route 3, Box 184, Floydada, Texas 79235. Phone (806) 983-2675.

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