

Pepper

Planting & Growing Guide

Questions? Contact us at (888) 784-1722 or helpdesk@groworganic.com



Peppers come in all sizes and shapes and are a favorite for most home gardeners. Whether you enjoy a sweet bell pepper in your salad or the hot flavor of a habanero, there is a pepper for every palate. Peppers are native to Mexico, Central and South America. The plant thrives in warm weather and can be grown as a perennial in areas that stay warm enough throughout the year. In regions that experience more extreme winters, peppers are grown as an annual.

PEPPER TYPES

There are a variety of ways to categorize the many types of peppers, from shape to how hot the pepper will be. Here is a broad list of pepper types (SHU—Scoville Heat Units):

Banana: Thin walled; long; used green to red. **0 SHU**

Bell: Large; roundish with 3–4 lobes; mature color varies from green, yellow, red, purple, brown or orange. **0 SHU**

Cayenne: Hot; short (2–8"); narrow and pointed; **25,000-50,000 SHU**

Cherry: Globed with 3 cells; hot or sweet; fruits grow upward rather than dangle.

Habanero: Thin; waxy; less squat than a bonnet shape; **100-350,000 SHU**

Jalapeno: Mildly hot; conical; **5,000-15,000 SHU**

New Mexico (Anahim): Elongated; blunt tip; **1,000-5,000 SHU**

Ornamental: Mini versions of hot peppers meant to be decoration, but are edible.

Pimento: Sweet; thick walled; conical shaped, nearly as wide as long; Ripe when red. **0 SHU**

GROWING BASICS

Pepper seeds are pretty slow to germinate, taking between 9 days (soil at 85°F or warmer) to 3 weeks in cooler situations; hot varieties tend to take longer than sweet.

Soil: peppers prefer a soil pH between 6 to 8 and temperatures of 70–85°F (will tolerate temperatures between 65–90°F).

Air temperatures: should be around 70–80°F during the day and 60–70°F at night.

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Seed longevity: if properly stored, the seeds should be viable for about 2 years.

Spacing: should be between 12–15" in each direction (too close or distant will affect yields and amount of sun burn).

Companion planting:

Incompatibility — fennel, kohlrabi.

Companions — basil, carrots, marjoram, oregano, onions, eggplants, and tomatoes.

Water requirements: water when soil is dry to touch; soak to 6" depth.

Fertilization: Address amendments prior to transplanting into garden; supplement per product label. Avoid too much nitrogen, this will lead to excessive foliage and little fruit.

PLANTING & GROWING

Due to tender nature and slow growth, start your seeds indoors at least 8 weeks before your last frost date.

Sowing: sow about ¼" deep in damp soilless mix (**Quickroot**) to prevent damping off and facilitate easy emergence. Moisten with sprayer or mister. Cover with a dome (optional) to prevent drying out and use a heat mat to provide sufficient warmth. Maintain soil as just moist (overwatering will displace or degrade seed). Place in a 65–85°F area with very good light or under grow lights. After first set of true leaves form, begin to supplement with half dilution of hydrolyzed fish and kelp every 14 days. Before transplanting to garden, place plants in a sheltered area outdoors during day and bring in at night to harden off.

Transplanting: Wait until night temperatures stay above 60°F and plants are hardened off. Work soil well and amend per soil report recommendations or add ½ cup balanced vegetable fertilizer in perimeter. Space 12–15" apart in well-drained soil with sufficient depth for roots. Peppers should be planted close enough so when they are mature they will "hold hands." That way the peppers will get shaded by foliage and less likely to get sunburned. Plants should be planted at the same level of original soil ball.

Water lightly to settle soil. As plants grow, water when soil is dry to touch; soak to 6" depth. As plants get bigger you may need to support them with a bamboo stake or trellis (especially when heavy with fruit). Apply mulch, silver film or green film to increase yields. Have frost protection on hand if there is a possibility that nights will drop below 45°F. It is recommended to remove early flowers to allow for adequate root formation.

To reduce sunburn on the fruit you can either cover with shade cloth or place plants on the north side of a taller plant to allow for some afternoon shading.

HARVESTING

Most peppers can be harvested from green to any variation for varietal color. Plants will flower according to amount of peppers being sustained, keep mature fruit picked to encourage more flowers.

Seed may be saved from mature (non-hybrid) peppers for the following year's garden. Allow seeds to fully dry and store in a cool, dry location.

PEST CONTROL - IPM

Important to practice good cultural controls for pest management of peppers. Cultural controls such as removing plants after harvest (to avoid leaving food for insects to continue to multiply on), practice crop rotation (i.e. do not plant crops in same family, in the same area for 3 years), use row covers such as Agribon AG15 (apply before insects arrive or to protect against birds when plants are young).

COMMON PESTS & DISEASES

Blossom End Rot: caused from calcium deficiency; inconsistent watering; excess N-P-K, salt or ammonium.

Leaf Spot: aphid borne.

Phytophthora Stem Rot: soil fungus usually due to poor drainage.

Southern Blight: soil fungus (add organic matter and rotate crops).

Sunscald: too much light on peppers (shade fabrics, plant near shading plants).

Aphids: usually found on the underside of leaves or on flower head. Control by strong spray of water, beneficial insects, or organic insecticides labeled for aphids.

Cutworms: targets seedlings.

Flea Beetles: attacks young plants and leaves small holes in the foliage. Use beneficial insects or an insecticide labeled to control flea beetles.

Hornworms: easily hand picked.

Whiteflies: usually found on the underside of leaves or on flower head. Control by strong spray of water, beneficial insects, or organic insecticides labeled for whiteflies.

COMMON QUESTIONS

Are peppers perennials or annuals? Can be treated as a short term perennial if grown in warm winter regions, otherwise it is grown as an annual.

How do I increase the yield from my peppers? Pick peppers young as new flowers will form or plant additional plants. Keep soil warmer to extend season by wrapping base of plant with fabric.

How do I increase the heat units of my peppers? Heat is related to soil conditions, environmental temperatures as well as variety, so plant in hottest areas of garden and ensure adequate plant nutrition.

What are the nutritional benefits of peppers? They supply vitamins C and A as well as antioxidants and minerals while being a low calorie source.

Why are my peppers malformed? Usually a result of inadequate pollination (attract pollinators and tap plants when in flower to distribute pollen).

DEFINITIONS

Heirloom: Heirloom seeds come from open-pollinated plants that pass on similar characteristics and traits from the parent plant to the next generation plant. Heirloom vegetables are old-time varieties generally which have been in production since before WWII, and have been saved and handed down through multiple generations.

Hybrid: a cross between two or more unrelated plant varieties. The two different varieties are cross bred, resulting in a seed that carries one or more favorable traits (increased yield, uniformity, color, disease resistance.) Hybrid seeds are not GMO, as they are manually cross-bred, not genetically modified in a lab. Hybrid seed is often sterile or does not reproduce true to the parent plant. Therefore, never save the seed from hybrids.

Open Pollinated: generally refers to seeds that will "breed true". When the plants of an open-pollinated variety self-pollinate, or are pollinated by another representative of the same variety, the resulting seeds will produce plants roughly identical to their parents. Genetic traits may differ only slightly due to variations created by local conditions.

GMO: Genetically Modified Organisms were genetically modified in a laboratory where DNA genes are extracted and mixed with other unrelated plants to improve characteristics. Saved seed will not always be viable and may be trademarked to prevent unauthorized use.

Scoville Heat Units (SHU): measures the "hotness" of a pepper. The scale represents the concentration of the compound capsaicin, the chemical that produces the heat sensation in peppers. It starts at 0 (bell peppers) and goes to over 2 million (Dragons Breath).

Limited Product Guarantees

Peaceful Valley Brand Seed Packs

Peaceful Valley Farm & Garden Supply brand vegetable seeds are guaranteed to germinate. Once the seeds have sprouted, please understand that Peaceful Valley cannot be held responsible for the many uncontrollable growing and climatic conditions that must be met to ensure the success of your crop(s).

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We warrant to the extent of the purchase price only that the seeds or plants sold hereunder are as described on the label within recognized tolerances. No other warranty is given, expressed or implied, of (1) the merchantability or fitness of the seeds or plants for any particular purpose, or (2) against loss due to any cause. We cannot accept any responsibility for the many uncontrollable growing and climatic conditions (soil preparation, fertilization, weed and pest control, temperature control, irrigation...etc.) that must be met to insure the success of your crop(s) or plants.



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