

Horticulture



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Seed Poppy in the Garden

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Summary

Poppy (*Papaver somniferum*) is a 2 to 3 feet tall hardy annual, grown for its seeds, which are used for culinary purposes. Poppy grows best in full sun and requires well-drained, fertile soil. Sow seeds in early spring in rows 12 to 24 inches apart and cover with 1/8 inch of soil. The seed bed should remain moist until plants emerge, which takes 7 to 28 days depending on soil temperature. Thin before plants are 6 inches tall with final in-row spacing of 6 to 8 inches. Water sparingly and lightly fertilize until plants are fully mature and begin flower production. Control insects and diseases during plant establishment prior to the onset of flowering in order to maximize seed production. Flowering begins in late spring to early summer followed by seed pod maturation in mid- to late summer (80–90 days after planting). Harvest during dry weather conditions when the seeds begin to rattle inside the pod. Because seed poppies enjoy warm, dry environments, many cultivars are suitable for Utah.



Recommended Varieties

*Variety	DESCRIPTION
Bread Seed Poppy	Smooth gray scalloped leaves, pink, purple, and red flowers and big seed heads.
Elka Poppy	Large seed heads; seeds are sweet, nutty, white and have 50% more oil content.
Heirloom Pepperbox	Gray-green plants; purple, red and pale lilac blossoms; dark nutty tasting seeds.
Hungarian Bread Seed	Eastern European heirloom; white to pale lavender flowers; blue-black seeds.
Ziar Poppy	Light lavender petals, dark red centers; sweet seeds and large seed heads.

*Purchase seeds from a reputable dealer. Varieties often not locally available.

How to Grow

Location & Soil Type: Seed poppy requires full sun and thrives in a dry, warm climate. It grows well in most Utah soils provided they are fertile, finely textured, and friable.

Soil Preparation: Poppies prefer a site in the garden that receives full sun and fertile soils. Soil should be prepared in the fall to allow for early spring planting. Before planting, determine fertilizer needs with a soil test, then follow the recommendations given with the report. If fertilizer applications are warranted, work the fertilizer into the top 6 inches of soil. If you apply compost, use no more than 1 inch of well-composted organic matter per 100 square feet of garden area.



Seed Cultivation: Poppy seeds are extremely small (100,000+ seeds per ounce). Seeds should be sown sparingly in shallow furrows or surface broadcast. To prevent over seeding, mix seed with fine sand and broadcasted mixture. Poppy seeds need light to germinate. Cover seed with no more than 1/8 inch of soil. Seeds also germinated better when exposed to freezing and thawing conditions; therefore, sow seeds either in late fall or very early spring. Plant growth and development is slow, and seed maturation takes up to 5 months, so early sowing is essential. Seeds germinate slowly requiring 4 weeks to emerge in cool weather and 2 weeks if the weather is warmer.

Plant Cultivation: Seedlings are cold hardy and plants form larger blossoms and seed heads when grown in cool weather. Several weeks after seedling establishment but before seedlings are 6 inches tall, thin plants to 4 or 6 inches apart. Thinning can be avoided by using transplants in place of direct seeding; however, poppies do not transplant well. If transplants are used, germinate and grow plants at 60°F. Grow seedlings for 4-6 weeks and plant out around the last frost date for the area. Transplant carefully to minimize damage the roots while planting.

Water: After seeding or transplanting, keep the seed bed moist until seedling emerge or transplants are established. Various methods of irrigation may be used as long as the seeds are not washed away before they germinate and become established. After final thinning, water needs are low about one inch per week, depending on weather conditions.

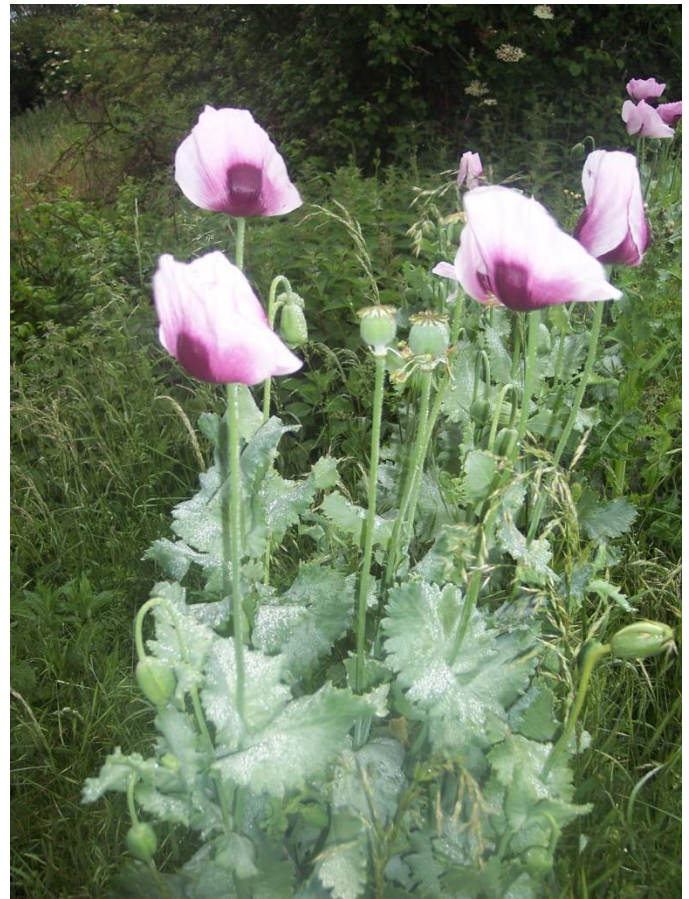
Fertilizer: In addition to fertilizers applied at soil preparation, seed yield increases when plants are fertilized with additional nitrogen. Side-dress poppy plants with 1-2 tablespoons of 21-0-0 per 10 ft. of row after thinning and before flowering to maintain vigorous growth.

Pest and Disease Management

Poppies are easy to grown and have few insect or disease problems. A good seed crop is not difficult to obtain under favorable conditions.

Black Bean Aphids may attack poppies flower buds just prior to bloom. Use insecticidal soap or a strong water stream to dislodge aphids from the plants. Slugs and snails may attack seedlings or newly emerging shoots in early spring during moist conditions. Traps and baits are quite effective for controlling these pests.

Fungal diseases like *downy* and *powdery mildew* may kill young seedlings or cause growth deformities. *Capsule infection* causes the formation of large, velvety black spots on green seed pods. Once symptoms are noticed, irreversible damage



has already been done. Avoid moist or wet conditions (over-head irrigations) that favor disease development. Virus diseases may affect poppies and are often aphid transmitted. Most plant diseases can be prevented by proper plant spacing, careful watering practices, and by providing adequate ventilation.

Poppy does not compete well with weeds particularly during establishment. Cultivate shallowly to avoid root damage and once established use organic mulches (leaves, grass clippings) to help control weeds.



Harvest and Storage

Harvest: Seed harvest should occur when weather is dry after the seed pods have become leathery and the seeds rattle inside the pods. If wet weather occurs before the seeds are fully dried, harvest and finish the drying process in a dry, airy location. To harvest, walk along the rows, inverting the seed capsules, and shaking the ripe seeds into a bag or bucket. Repeat every six or eight days until the entire crop is fully harvested. No further processing is required.

Productivity: Each plant can produce thousands of seeds, depending on the number of pods produced per plant. If well cared for a 10 foot row should produce 4-5 ounces of seed.

Storage: Harvested seeds maintain their flavor and quality for culinary purposes for quite some time; however, seed viability is lost quickly. Store seeds in a cool, dry, dark place. Seeds intended for re-planting should not be stored for more than one year.

Post-Harvest Care: In most Utah locations poppy plants only flower once and plants will not overwinter. After harvest, till plants into the soil or add plant residue to the compost pile.

Frequently Asked Questions

Is it illegal to grow seed poppies in the U.S.? Seed poppy can be grown legally for garden and seed production purposes; however, it is illegal to manufacture opium from the poppies.

Can more than one variety of poppy seed been grown at the same time? When growing more than two varieties and wanting to save seed for re-planting, plants should flower at different times or flowers protected from crossing. Since poppy does cross-pollinate, separate different varieties by at least 250 feet. Otherwise, hand pollinate some flowers and then bag or cover the flowers so crossing cannot occur.

Sources

Grey-Wilson, C. 1993. "Pests and Diseases." In *Poppies: A Guide to the Poppy Family in the Wild and in Cultivation*. Portland, OR. Timber Press. pg. 21-22.

Kapoor, L. D. 1995. "Agricultural Studies." In *Opium Poppy: Botany, Chemistry, and Pharmacology*. New York: Food Products. pg. 65-88.

UC IPM. 2008. "Managing Pests in Gardens: Poppy." *UC Statewide Integrated Pest Management Program*. The Regents of the University of California. accessed 22 Sept. 2011. <http://www.ipm.ucdavis.edu/PMG/GARDEN/FLOWERS/poppy.html>

Washington State University. "Culinary Poppy." *Vegetable Research & Extension Center*. accessed 30 Sept. 2011. <http://agsyst.wsu.edu/culinarypoppy.html>

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