



# 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 as they may not be available locally.

## 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 dry, finely textured, and friable.

**Soil Preparation:** Soil should be tilled or loosened up in the fall in preparation for early spring planting. Because poppies prefer fertile soils, a soil fertility test should be conducted prior to planting. Fertilizer should be used to bring nutrient levels up to test recommendations. Composted farm-yard manure may be used as a natural fertilizer and should be applied at 5-10 pounds per 100 ft<sup>2</sup> of garden space and worked into the top 4 inches of

the soil. If commercial fertilizers are used, broadcast and incorporate 1-2 pounds of 10-10-10 per 100 ft<sup>2</sup> prior to seeding.



**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, seeds may be mixed with fine sand and broadcasted lightly. Poppy seeds need light to germinate, so cover after sowing with no more than 1/8 inch of soil. Seeds also need freezing and thawing conditions before germination will occur; therefore, sow seeds either in late fall or very early spring. Furthermore, plant growth, development, 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 warm. Soil temperatures at or above 60°F are ideal.

**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, plants should be thinned 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, seed should be sown in flats four to five weeks before the last frost taking care not to damage the roots while transplanting.

**Water:** After sowing, keep the seed bed moist until seedling emergence. 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 has taken place, moderate amounts of water (one inch per week) should be applied, depending on weather conditions.

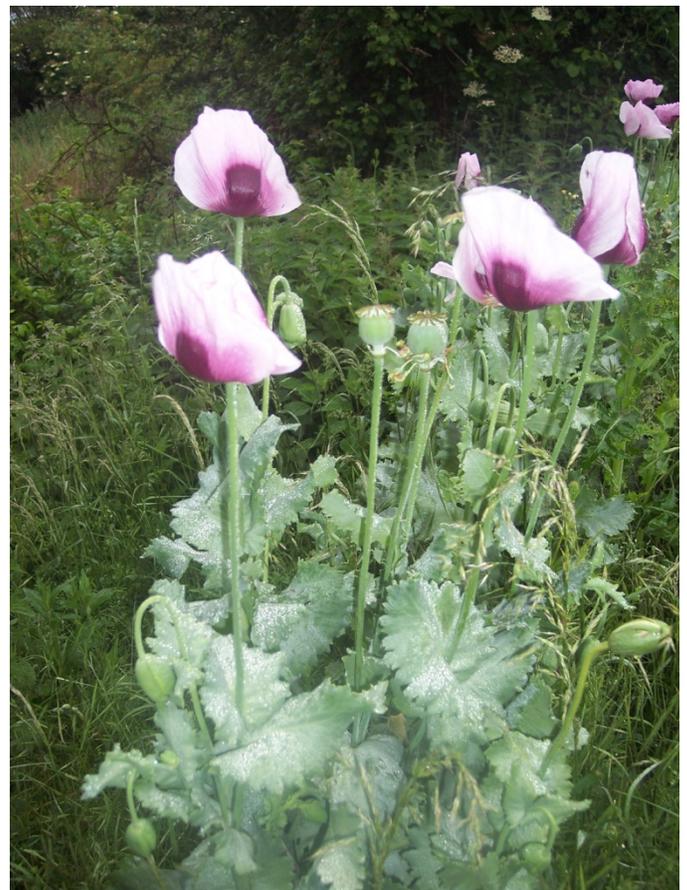
**Fertilizer:** In addition to application of natural or commercial fertilizers at the time of soil preparation, an increase in seed yield can be achieved with additional nitrogen fertilizer applications. Side-dress poppy plants with 1/3 pound of 21-0-0 per 100 ft<sup>2</sup> after thinning and before flowering to maintain vigorous growth.

### Pest and Disease Management

Poppies are remarkably free from insect and fungous attacks; as such, a good seed crop is not difficult to obtain under favorable conditions. However, there are known pests and diseases that do at times attack poppies, including insects, fungal and viral diseases, and weeds.

Black Bean Aphids attack mainly when poppies are in bud, just prior to flowering. 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 infections 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 that favor disease development. Virus diseases can also affect poppies and are often transmitted by aphids. Most plant diseases can be prevented by properly spacing plants, through 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 begin to rattle inside the pods. If wet weather conditions are threatening before the seeds have 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 about 4-5 ounces of seed.

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**Storage:** Harvested seeds will 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 will flower only once and existing plants will not overwinter. As such, after harvest, plants should be cut down and tilled into the soil to restore part of the nutrients taken up by the plants during growth.

## 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?* If the gardener desires to grow more than two varieties and save some seed for re-planting, they should either flower at different times or not be planted side by side. Poppy does cross-pollinate thus reducing the quality of the seed. Separate the poppy varieties by at least 250 feet.

## Sources

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