



Vegetables:

Growing Green Peas in Home Gardens

WASHINGTON STATE UNIVERSITY EXTENSION FACT SHEET • FS116E

Crop at a Glance

Growing season: Spring, late summer, and early fall.

Time of planting: Sow seeds in spring, 4 to 6 weeks before last spring frost, when soil temperatures reach 50°F.

Spacing: Bush peas, 2–4 inches apart in rows 2 feet apart; vining peas, 2–4 inches apart in rows 3 feet apart.

Days to harvest: 50–80 days.

Average yield: 2–6 pounds per 10-foot row.

Common starting method: Direct soil seeding or seedling transplants.

Introduction

There are two main types of peas: those with an inedible pod, such as shelling (garden) peas, and edible-pod peas, such as snow or sugar snap peas. Green pea varieties also grow on two different plant types—bush or vine.

Peas thrive in cool, moist weather and produce best in cool, moderate climates. Early plantings tend to produce larger yields than plantings later in the season.

Shelling peas are used for cooking; split the pod and remove the pea seeds immediately. Preserve shelling peas for later use by freezing, drying, or canning.

Snow peas, sometimes called Chinese pea pods, are typically used in stir-fries. These peas have flat edible pods with small peas inside; the peas are not shelled.

Sugar snap peas are a cross between shelling and snow peas. Sugar snap peas have plump, edible pods with a crisp, snappy texture. They are not typically shelled.

Both snow and snap peas feature a slightly sweeter and crisper taste than than shelling peas.

Selecting Types to Plant

Select pea varieties that appeal to your taste and culinary use. Pole (climbing) pea plants grow as vines and need a support system; bush peas are freestanding. Be sure to select a variety that matures within the growing season of your region. Most peas require 50 to 80 days from planting to first harvest. Home gardeners in western Washington should select pea varieties that will mature in a short growing season (listed as days to maturity) to ensure ripening. Eastern Washington has a longer growing season; therefore gardeners may select pea varieties that take longer to mature.

Choosing a Planting Site

Peas grow best in fertile, well-drained soils that contain adequate levels of organic matter, and in a location that gets full sun exposure. Vining pea plants need ample support through a netting or trellis system, as some vines grow 3 to 5 feet or more before setting fruit. Bush type peas are mostly self-supporting. Peas have moderate water needs when planted early in the growing season, but water needs will increase during the heat of summer. To prevent fungus problems on the plants, do not get the leaves wet—avoid overhead watering.

If planting peas in eastern Washington, it may be helpful to have the soil tested for pH. Some eastern Washington soils are highly alkaline and may need amending to adjust pH levels before planting. A soil test will reveal the pH and nutrient content of your soil. Contact your local extension office for assistance.

Planting Guidelines

Purchase certified seed from seed catalogs or garden centers. Pea seeds saved from hybrid varieties will not produce the same type of pea due to cross hybridization. Specific pea varieties are not listed in this publication because of the continual introduction of new pea plant varieties.

This fact sheet is part of the WSU Extension Home Garden Series.

Peas are a cool-season crop and should be sown directly into the ground when the soil temperature is at least 50°F, and the soil is dry enough to work without it sticking to garden tools. For bush varieties, sow seeds about one inch deep and two inches apart, in rows spaced 18 to 24 inches apart. Vining peas need the support of a trellis or pole system. Plant 6 to 8 seeds around the base of a circular (“teepee”) trellis system, or space seeds 1 inch apart and 1 inch deep along a straight line trellis, with rows spaced 3 feet apart.

Home gardeners may start plants in the home or greenhouse 10 days to 2 weeks prior to transplanting seedlings into the garden. Ideally, transplanting should occur after the threat of killing spring frosts have passed.

A successful harvest will yield approximately 2 to 6 pounds of peas per 10 foot row. Gardeners should plant 30 plants per person for an adequate yield.

Gardeners who have never grown peas may want to mix a pea inoculant (a Rhizobia bacteria mixture) into the soil. Peas are in the legume family, and with the aid of soil-borne bacteria, they can take nitrogen gas from the air and turn it into a plant-usable form. This process, called nitrogen-fixation, happens in little root nodules. After harvesting, the pea vines can be composted, but many roots are left in the soil. As the roots decay they provide nitrogen for the next crop.

Plant Maintenance

The first few weeks after planting are the most critical to the survival and productivity of the pea plant. If seeds fail to germinate or germinate unevenly, a gardener should investigate the reasons: seeds planted too deep, cold soil, old seed, pest-damaged seed, and the like. Gardeners need to observe their plants periodically (2 to 3 times a week) for signs of disease, insects, or garden pests. Check the moisture level of the soil near the root zone of the pea plants; it should be moist and pliable, not dry and crumbly, or wet and soggy. Signs of low soil fertility are stunted plants with pale leaves, or vigorous plants that fail to bloom or set fruit.

Another key period for maintenance is flower bloom. For peas, the flowers are self-pollinating (meaning that they contain male and female parts) on the same plant. These flowers are dependent on honeybees, other bees, and insects to transfer the pollen from the anthers to the tip of the stigma (female part) to create a pea pod. Take precautions to minimize pesticide use during flower bloom and encourage bee and insect visitation.

Pest Management

Diseases. Plant diseases can affect pea yield in the home garden. Diseases can be reduced by 1) planting certified disease-free seed, 2) planting peas in well-drained soil, 3) avoiding overhead watering and keeping water from splashing on pea vines and foliage, 4) avoiding plant overcrowding by weeding and properly thinning plants and, 5) cleaning up plant debris and removing any plants that

are diseased or dying. (Do not compost those!) Investigate the reasons why any plants are weak and why they failed to grow. Follow the steps listed above to prevent plant diseases.

Insects. Insect pest problems are few and rarely affect pea quality when proper crop rotation is used in home gardens. Healthy pea vines tolerate pest damage, while stressed (often water stressed) vines may attract insect pests. By checking vines regularly for evidence of insects or signs of damage (leaf discoloration, insect feeding damage on leaves, vine tip dieback, or surface marking on pods), gardeners may anticipate problems and control pests before they jeopardize plant health or fruit quality. Learn to recognize the beneficial insects, especially insect predators, and encourage their presence in your home landscape. Contact the local WSU Master Gardener program in your county to assist in identifying pests and beneficial insects.

Common Problems

The table below illustrates and describes a few of the most common disease and insect pest problems for green peas.

Powdery mildew

Photo: Michelle Grabowski,
University of Minnesota



Symptoms: Powdery mildew is a fungal disease that attacks the leaves, pods, and stems.

Leaves and stems develop discolored spots. The spots later show characteristic white mats of powdery fungal growth, which give a bluish cast to the foliage.

Corrective Action: Clean up plant debris in the garden. Destroy or discard (do not compost) diseased materials. Plant peas in early spring. Spring crops seldom show serious damage. Do not replant peas in the same location more often than every third year. Plant mildew-resistant varieties.

Root rot

Photo: Michelle Grabowski,
University of Minnesota



Symptoms: Several fungal root rots can affect peas.

Typical symptoms of root rots are stunting, yellowing, and dieback of above-ground portions of the plant. Root systems of affected plants are smaller than normal.

Corrective Action: Plant in well-drained soil. Raised beds or organic matter added to soil will help improve drainage. Remove and discard diseased plants, including their root systems. Do not compost. Rotate crops. Do not plant peas in the same location more frequently than every third year.

Root rot/damping off

Photo: Michelle Grabowski, University of Minnesota



Symptoms: Soil-borne fungi cause seed rot and damping-off of pea seedlings. Infected seeds decay without germinating or emerged seedlings wilt and topple over.

Corrective Action: Plant in well-drained soils. Do not over-water. Do not plant in soil infested with damping-off fungi. Mulch to help raise soil temperature. Plant seeds at suggested depth to encourage quick seedling emergence and growth.

Pea leaf weevil

Photo: H. Goulet, AAFC, Ottawa



Symptoms: The pea leaf weevil is a small, brownish-gray beetle about 1/5 inch long. Adults are marked with lighter longitudinal lines on the back.

Corrective Action: Do not plant peas near clover, vetch, or alfalfa patches. Handpick any adults found on young plants. Older plants are seldom seriously damaged. Provide proper conditions to maintain vigorously growing plants. Healthy plants can usually outgrow damage. There are insecticides labeled for use in peas to control these weevils. For a list of products available for home garden pests, consult the WSU Hortsense at <http://pep.wsu.edu/hortsense>.

Slugs

Photo: R. Rosetta, OSU



Symptoms: Slugs are especially common garden pests in western Washington. Foliage of older plants is raggedly chewed, while younger plants may be totally consumed. Slugs leave behind a slime trail, which appears silvery when it dries. Slugs typically feed at night during cool, moist weather.

Corrective Action: Handpick and kill slugs by placing them in a container and discarding. Use baits, chemical or of natural products, with caution, as pets can be poisoned. Iron phosphate-based baits are safer for pets.

healthy and producing. Frequent picking of green peas is essential for optimum quality and continued production. Delayed harvests results in reduced quality products and less productive plants.

After the final harvest, be sure to remove and destroy the left over plant debris. Alternatively, turning the remaining healthy plant material under the soil in the fall can help replenish nutrients and contribute to the organic matter content of the soil.

End Uses

Snow or sugar snap peas. Choose young pods with tender skin. Wash and cut or snap as desired for segments, or eat pod and seeds whole in salads, soups, or side dishes, or preserve them for future use.

Green shelling peas. Choose pods that are well filled, yet not bulging. Remove peas from their pods and cook as desired.

Further Reading

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Harvest and Storage

Green peas are ready for harvest 50 to 80 days after planting. Depending on their use, peas should be harvested based on their size. Harvest sugar or snow peas for their edible pod just as the seeds start to form. For tender and sweet shelling peas, harvest when the pods are well developed but not bulging. If picked later, shelling peas become starchy and are not as sweet. Do not allow pods to reach the yellowish stage as they become bitter and yields are reduced.

Harvest by removing the pods from the pea vines 1/4 inch above the fruit. Do not trample the vines any more than necessary while harvesting the crop to keep the plants



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Use pesticides with care. Apply them only to plants, animals, or sites as listed on the label. When mixing and applying pesticides, follow all label precautions to protect yourself and others around you. It is a violation of the law to disregard label directions. If pesticides are spilled on skin or clothing, remove clothing and wash skin thoroughly. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

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