WV EXTENSION SERVICE
FAMILY NUTRITION PROGRAM

Growing Peas in West Virginia

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Peas are typically classified as one of three types depending upon their characteristics and desired usage. Sugar snap peas and snow peas have a sweet, crispy edible pod, while dry peas are generally shelled with the interior pea dried to be cooked in soups and other dishes. Shell peas are shelled for canned or frozen peas, or grown for dry pea production. Historically, the majority of peas have been harvested and shelled for dried, canned or frozen preservation, but the large selection of sugar snap peas and snow peas, which are commonly used in stir-fries and salads, now on the market has increased the popularity of raw consumption.

Production

In general, most peas are cool weather, frost-tolerant crops that are suited well to West Virginia's early growing season. They will not fare well in the high heat of peak summer. If air temperature is too high, germination and pod and seed development will suffer.

Soils

Peas are tolerant of a variety of soils but prefer loose, well-drained, fertile soil and thrive in high organic matter. High clay soils can lead to poor drainage and excessive moisture, which increases the chances of root problems among plants.

Fertilization

Before planting, incorporate up to 3 inches of well-decomposed organic matter and apply a complete all-purpose fertilizer (15-15-15), worked to a depth of 6 inches. A soil test is always recommended to assess nutrient and pH levels of the soil before planting. Legumes have the ability to fix nitrogen in the environment, so additional applications of nitrogen are not recommended and can lead to excessive plant growth, which can hinder flowering and seed production.

Planting

Most peas need soil temperatures to be above 40 degrees for germination. Plant seeds approximately 1 inch deep, spaced 1 to 2 inches apart with at least 12 inches between rows. This spacing will prevent the need for thinning later. Peas can be succession planted every 2 to 3 weeks to have a steady supply throughout the season. The length of time to maturity varies by type and variety with the earliest being about 52 days and longer maturity varieties taking as much as 82 days. Most varieties do not need support; however, many varieties are natural climbers and trellising or running peas along a string can make them easier to pick.

Pea Type	Varieties Selected for West Virginia
Sugar Snap Peas	Sugar Anne, Sugar Sprint
Shell Peas	Green Arrow, Knight, Mr. Big
Snow Peas	Dwarf Gray Sugar, Oregon Sugar Pod

Row cover and mulches

Mulches are not required but can help keep the soil temperature cool and moist as the summer starts to warm it, possibly extending production a little longer. Likewise, row covers can prevent heavy frosts from damaging plants in early spring or late fall.

Water

Peas need moist soil and cool weather and can be adversely affected by both overly dry conditions and high humidity. Lack of moisture restricts plant growth and seed development, and excess humidity can lead to fungal and disease growth. Developing peas need a consistent moisture supply for ideal yields. To prevent drought stress, irrigation may be required.

Weeds

Early and regular cultivation while plants are small can control most weeds. Ensure that tender roots are not damaged by excessive or deep cultivation. Proper plant spacing of the pea plants will typically reduce weeds after a few weeks of plant growth.

Harvest

Maturity time varies widely among pea varieties and types. Snap peas should be harvested within a week of the plant flowering when the pod is young and tender. Continue picking often as a single plant will produce for several weeks as long as the environmental conditions allow. Shelling and sugar snap peas can be harvested when the pod is plump and succulent. Snow peas should be harvested before the seed swells in the pod. Peas should be used immediately or refrigerated for up to a week.

The pods of dry peas should be fully mature and beginning to dry or harden. Plants can be pulled and lain in the garden or another dry spot for up to a week. Once fully dry, pods can be shelled, removing the seeds and allowing them to dry out in a dry area with good ventilation. Peas can be stored in a sealed container and will maintain quality for at least a few years.

Nutrition

Peas are legumes, which are high in protein and low in fat. In general, the protein content is not as high in the sweeter varieties, and the fiber content increases if the pod is consumed. All types of peas are good sources of vitamin A, vitamin C, thiamin, folate, iron and phosphorus. Canned peas are often higher in sodium due to added salt content. Boiling can also reduce the amount of water soluble vitamins, such as vitamin C. According to USDA nutrition facts, one cup of shelled peas has 125 calories, and one cup of edible-pod peas has 65 calories.

Disease	Symptom	Treatment/Control
Powdery mildew	White or gray powdery growth on leaf surface and distorted fruit/seeds.	Mildew resistant varieties are in development. Fungicides are available for treatment and prevention.
Downy mildew	Fungal disease that exists on the seed and in the soil. Causes yellow lesions on upper leaf surface, which eventually turn brown. New growth is stunted and discolored with the fuzz of fungal spores.	Seed treatments are available. Rotate fields with non-legumes. Destroy infected plant tissue to prevent fungal spread.
Fusarium root rot	Fungal disease that destroys plant's water transport system causing it to die. Vascular tissue may be visibly brown when cut open.	No effective treatment. Rotate crops (fields are infected for six or more years).
Ascochyta leaf spot	Damage beginning with small black spots and enlarging to dark rings with light centers.	Humidity increases prevalence. Copper fungicides may provide limited control.
Root rot and dampening off	Soil borne organisms cause seeds, roots and other tissues to rot.	Seed treatments and fungicides are available.
Viruses	Patchy color pattern, stunted plants and crinkled leaves.	Control vectors, such as beetles and aphids.
Aphids	Damage plants by sucking sap. Aphids also transmit viral diseases in peas.	Spray plants with water. Insecticides are approved, but may not be necessary. Destroy infected plants so eggs don't overwinter.

Insects, Diseases and Other Issues *(continued)*

Disease	Symptom	Treatment/Control
Weevils	Damage plants by feeding on foliage causing a scalloped edge. Larvae burrow into pods and feed on growing seed.	Timing of planting can reduce damage by avoiding peak weevil season. Hand pick adults. Chemical treatment is available if warranted.
Spotted cucumber beetles	Feed on leaves creating holes, especially damaging to young plants. Beetles also can spread viruses.	Timing of planting can reduce damage by avoiding peak beetle season. Hand pick adults. Chemical treatment is available if warranted.
Army worms and cutworms	Various larvae damage plants by eating large holes. Cutworms eat near the soil surface.	Hand pick adults. Chemical treatment is available if warranted. Removing debris from garden can reduce cover for adults.