



Winter Vegetable Gardening Tips from Joyce Gemmell

Peas Brassica family

There are three categories of peas: the English or shelling pea, the Chinese pea or snow pea and the snap pea. The differences between the last two, edible pod types, is in the maturity of the pea inside the pod. The Chinese or snow pea has a large flat pod, some up to 2 inches across and 4 - 5 inches long with immature peas, at ideal harvest. The snap pea has a smaller pod width, round or oval in diameter and fleshy. Flavor of the pod is very sweet in some varieties when the peas in the pod are half to fully developed. The sweetness of the pod encourages most people to eat them raw.



All of the three categories have hybrids developed for disease resistance, earlier harvest, plant size, yield and flavor. In areas of the country where cool wet spring and summer favor the pea, they grow and produce without many problems, but in an alien environment of mild wet springs and hot humid summers, they are susceptible to many diseases and generally give a quick flush of peas before the plants are under mildew stress and stop blooming.

To overcome, somewhat, the combination of powdery mildew and other susceptible wilts, we plant peas in late fall (October) and harvest in about 60 to 90 days, depending on the weather. The longer one delays planting, even early maturing varieties, the bigger chance that the harvest will begin the same time spring temperatures start rising and overcast days bring high humidity, the two factors for mildew infection. Most certainly, one should select varieties that have been developed with mildew resistance but that does not mean your plants will be 100% protected from the problem.

Germination can be a problem in wet cold soil. It can also be a problem in warm wet soil. Peas prefer well drained soil. On heavy soil, plant on mounds for better winter drainage. Do not use high nitrogen fertilizer as peas are sensitive to salinity. Apply all purpose (5 - 10 - 5) fertilizer before planting and work into the top 12 inches. Do NOT use fresh horse or any other fresh manure.

Plant seed 1 to 2 inches deep (2 inches deep if your ground is still warm, 70 degrees or over.) Water the rows or beds several days before planting to bring soil moisture up. After planting, wait for germination before watering again, especially on heavy soil. Peas can stand crowding, 2 - 3 inches apart in a row, or wait for good germination and then thin. If you plant dwarf varieties, try planting in double rows, 6 - 8 inches apart and they will support each other. Most dwarf varieties do better with a short trellis. Large climbers need sturdy support, for some, as much as 8 feet

The **Shelling pea** has a fibrous, stringy pod with sweet plump peas. It takes many plants to give enough peas for a good sized harvest. Pods are picked when the peas are filled out and before the pods become mottled or yellow. The peas, when over mature, lose their sweet flavor Some of the better hybrids are: **Maestro** (61 days) with 11 peas in each pod, **Wando** (68 days) takes heat so you might try it in March, **Novella** (70) days is a dwarf, semi leafless and prolific, **Green Arrow** (70 days), **Burpeeana Early** (63 days) or **Alaska** (55 days), a smooth seed type that germinates better in wet soil. All of the maturity dates listed are based on spring planting. Fall planting and slower winter growth may extend maturity dates.



The **Chinese or snow pea** that we know from Chinese cooking, must be picked when the pea is immature. The pods can be fibrous and “grassy tasting.” Some of the tall varieties are very prolific and need daily picking. Some of the recommended varieties in field testing are: **Mammoth Melting Sugar** (90) days, very large pods, prolific; **Dwarf White Sugar** (60 days) early, large harvest; **Dwarf**

Planting Dates for bush peas:
Coastal region
Plants can be set out from September to March.

Inland Region
Plants can be set out from January to March.

Grey Sugar (80 days), very prolific, good mildew resistance. A new Park Seed Co. introduction (1996) is **Short 'N Sweet** (50 days), a snow pea with vines only 30 inches tall. Wait until October to plant. **Oregon Giant** (60 days), 2 ½ foot vines, high sugar pod, tolerant of powdery mildew.

The **Snap Pea**, a generally different pea from the snow pea, was developed by a plant breeder in Idaho in the early '70s. It was awarded the All American Selection for vegetables in 1981 under the name of **Sugar Snap**. Since its introduction, many variations of the snap pea have been developed to improve the characteristics. **Sugar Daddy**, a 1985 introduction, is stringless; **Sugar Bon** is a dwarf variety and early. There are now 5 or 6 snap pea relatives from which to choose. All have the typical sweet, oval, fleshy pod with large sweet peas inside.

There is some evidence that some snap type peas are day length sensitive, which would mean that some varieties would grow larger, bloom more and consequently have higher yield if planted in early spring instead of the fall. Which varieties should be planted in the spring and which could be planted in the fall may be determined by the field trials.

Field trials were done in El Cajon by the University of California for three seasons on both types of edible pea pods. Evaluations were made for mildew resistance, maturity dates, yield and flavor. (see notes following)

Snap Pea and China Pea (Snow Pea) Notes from Field Trials

Snap Pea: Size varies, plants 2 ½ to 6 or 7 feet tall. All have thick wall pods, round or oval, firm, crisp, sweet, some more than others. Can be eaten raw, cooked and shelled. Original variety called Sugar Snap is stringy, later varieties are stringless.

China Pea or Snow Pea: Plant size from 3 ½ to over 6 feet tall. Pods are 3 - 5 inches long and broad, depending on variety. In field tests done by the Master gardeners, the highest yielding China Pea was **Dwarf Grey Sugar** and a tall variety called **Mammoth Melting**.

PLANTING: If planted October to mid-November, harvest should begin in January to mid-February and continue for approximately two months before mildew affects the yield. Once mildew is observed on the bottom leaves and temperatures are increasing, the yield begins to decline. It's time to pull the vines. Smooth seed varieties are adapted to cool weather and colder soil.

FROST: Mature plants can take freezing temperatures to the mid twenties, but if in bloom and pod, freezing will usually kill both flower and fruit. The plants will continue to grow and set more fruit as soon as temperatures rise again.

MATURITY DATES: Listed maturity dates are based on spring planting. Use them only to compare varieties. Maturity will depend on the date one planted and the winter temperatures.

GARDEN PEA VARIETIES

Green peas, sugar peas, china peas, and snap peas are all cultivars within *Pisum sativum*. Green peas are the common shelling variety of pea, While others are edible podded varieties botanically identified as *P. sativum* var. *saccharatum* and *P. sativum* var. *macrocarpon*.

In the edible-pod varieties, there are two sub groups -the sugar or snow peas and snap peas. Within sugar peas, china peas are semi-dwarf types growing to a height of about three feet and producing pods three or four inches long. Standard sugar peas typically grow to a height of six feet or more and produce pods four or five inches long. Both the China and standard sugar pea types produce pods that are broad and thin. The leading China pea variety is **Dwarf Grey Sugar**, while **Mammoth Melting Sugar** is the most preferred standard sugar pea variety. The plant size of snap peas varies as there are standard varieties and a growing number of dwarf ones now available, but they all have pods with thick walls that become round, firm, and crisp. Pods may be eaten raw, cooked or allowed to mature for shelling like common peas

Pea varieties are categorized further into groups through many traits: pod color (light or dark green); seed surface (smooth or wrinkled); days to maturity (early, mid or late season); plant size (indeterminate/tall, semi-determinate/semi-dwarf or determinate/dwarf); pod shape; seed size and color. The varieties with dark green pods are preferred for freezing and home garden use. Smooth-seeded Varieties are more adapted to cool weather conditions, and wrinkled-seeded peas are generally considered to be sweeter, although there is recent evidence contradicting this.

There is an ever-changing list of garden pea varieties as breeders develop new peas with improved qualities. Better flavor, larger peas, higher yields, dwarf growing habit, more tendrils for vine support, disease resistance, and stringless pods have all been introduced.

Most dwarf varieties and many semi-dwarf ones require no staking or support. However, harvesting may be easier if plants are grown on a short fence to keep them from falling over in the wind. The tall varieties will require a strong support system consisting of stakes and twine to keep plants upright and facilitate harvesting.

Source: Dennis Pittenger, Urban Horticulturist; VC - UCR, Vegetable Briefs, January 1985.

Also check out ...

http://vric.ucdavis.edu/veg_info_crop/peas.htm

<http://www.ipm.ucdavis.edu/PMG/GARDEN/VEGES/peas.html>

Nutritional Information...

Peas

Energy	339 kJ (81 kcal)
Carbohydrates	14.5 g
Sugars	5.7 g
Dietary fibre	5.1 g
Fat	0.4 g
Protein	5.4 g
Vitamin A equiv.	38 µg (4%)
- beta-carotene	449 µg (4%)
- lutein and zeaxanthin	2593 µg
Thiamine (Vit. B1)	0.3 mg (23%)
Riboflavin (Vit. B2)	0.1 mg (7%)
Niacin (Vit. B3)	2.1 mg (14%)
Pantothenic acid (B5)	0.1 mg (2%)
Vitamin B6	0.2 mg (15%)
Folate (Vit. B9)	65 µg (16%)
Vitamin C	40.0 mg (67%)
Calcium	25.0 mg (3%)
Iron	1.5 mg (12%)
Magnesium	33.0 mg (9%)
Phosphorus	108 mg (15%)
Potassium	244 mg (5%)
Zinc	1.2 mg (12%)

Percentages are relative to US recommendations for adults.

Source: Wikipedia : USDA Nutrient database