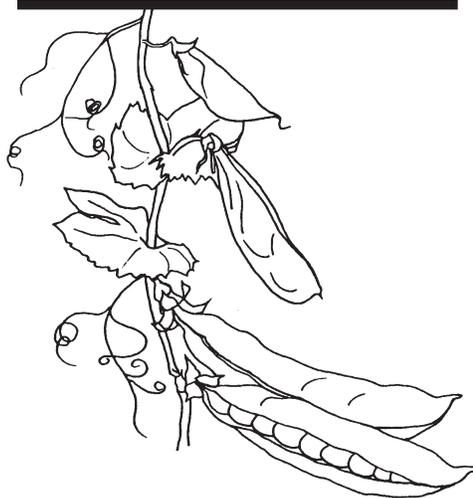


# CULTURE AND CULTIVARS

FOR THE GARDENER,  
BEDDING PLANT GROWER,  
GARDEN CENTER SUPPLIER,  
AND DIRECT MARKETER

## Growing Peas



### SUGGESTED CULTIVARS AND DESIRABLE CHARACTERISTICS

Cultivar	Days to maturity	Disease resistance	Suggested use	Comments
<b>Standard (English) type</b>				
Maestro	61	BYMV, F, PEV, PM	F, G	Large pods, early
Knight	62	CW, F, PEV, PM	C, F, G	Large pods, early
Little Marvel	63	—	F, G	Dwarf vines, high-yielding
Frosty	64	F	F, G	Good for freezing
Lincoln	66	CW	F, G	Standard cultivar for home gardens
Mr. Big	66	F, PM	F, G	Trellis type, 5-inch puffy pods, easy harvest, AAS 2000
Wando	68	F	F, G	Best pea for late planting
Green Arrow	70	CW, F	F, G	Large pods, high yields
<b>Edible pod/flat (snow pea type)</b>				
Dwarf Gray Sugar	65	—	F, G	Especially used for edible stems and red flowers
Mammoth Melting Sugar	68	CW	F, G	Broad, flat pods, needs trellis
Oregon Sugar Pod II	68	CW, PEV, PM	F, G	Most disease resistant, double clusters of peas
<b>Edible pod/round (snap type)</b>				
Cascadia	58	PEV, PM	F, G	Round, snap, bush type
Sugar Ann	58	CW, F	F, G	Round, snap, bush type, AAS 1984
Sugar Sprint	62	PEV, PM	F, G	Stringless, bush type
Super Snappy	65	PM	F, G	Largest pods with 8–10 peas/pod
Super Sugar Snap	66	BLRV, PM	F, G	Trellis type, more disease resistant than ‘Sugar Snap’
Sugar Lace II	68	BLRV, PEV, PM	F, G	Semileafless type, self supporting in double rows, stringless pods

 = also recommended for direct market and sustainable agriculture enterprises since it has high yield potential, pest resistance/tolerance, and very good eating quality

Disease resistance: **BLRV** = Bean Leaf Roll Virus; **BYMV** = Bean Yellow Mosaic Virus; **CW** = Common Wilt; **F** = Fusarium resistance or tolerance; **PEV** = Pea Enation Virus; **PM** = Powdery Mildew resistance or tolerance

Suggested use: **C** = canning; **F** = freezing; **G** = for fresh use

Comments: **AAS** = All-America Selections winner

### CULTURAL PRACTICES

#### Soil Fertility and pH

We strongly recommend adding fertilizer and lime as directed by soil test results. Soil-testing kits can be purchased from county cooperative extension offices or garden supply centers. If the soil is not tested, apply 1 to 2 inches of compost, add 1½ pounds of 5-10-5 (or equivalent) fertilizer per 100 square feet, and work into soil. It is better to band the fertilizer at 2 inches to the side and 3 inches below the seed. Do not apply excessive nitrogen.

#### Planting Dates

Peas may be planted anytime in April in central Pennsylvania. Plant 2 weeks earlier in warmer regions of the state and 10 days later in cooler regions. If you wish to try a later planting, sow ‘Wando’ because it will withstand warm weather better than other cultivars.

#### Depth of Seeding

All pea types should be planted 1 to 1½ inches deep.

#### Spacing

Space rows 3 feet apart. To obtain maximum yields from limited space, plant in double rows 6 to 8 inches apart. Seeds should be spaced 2 to 3 inches apart in the row.

### SPECIAL PRECAUTIONS

#### Planting

Although a cool-season crop, peas germinate well, but slowly, at soil temperatures below 50°F. Plants can tolerate moderate freezes. Peas are injured by poor soil drainage at any time during growth.

#### Staking

Low-growing dwarf cultivars or semileafless types such as ‘Sugar Lace II’ do not need support, especially if grown in double rows. Tall-growing cultivars such as ‘Super Sugar Snap’ or ‘Mammoth Melting Sugar’ must be supported. Chicken wire, a trellis of string, or a row of twigs are some common supports.

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## HARVESTING

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Pick standard green (English) pea types while they are firm but still succulent. Pick flat-type, edible, podded peas (snow peas) before seed swellings become too evident. The newer, round, crisp, fleshy “snap” types should be picked when round and firm but still succulent. Snap and remove strings from both ends, but do not shell. Pea pods are firmly attached to their vine, so hold the vine with one hand and pull the pod with the other to avoid injuring plants and reducing yields.

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## WEED MANAGEMENT

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Dense weeds not only rob vegetable crops of moisture, light, and nutrients, but can also harbor insects and create an ideal environment for many diseases to develop. Eliminate young weed seedlings with shallow hoeing or cultivating. Never let weeds become too big. Always pull or mow weeds before they form seeds. Place mulch such as straw around plants and between rows to reduce weeds and conserve moisture. Perennial weeds near and in the planting provides a site for diseases (viruses and mycoplasmas) to overwinter and should be removed whenever possible.

To help keep weeds and weed seeds out of the planting during fall and winter, sow a cover crop in late summer or fall (for example, annual ryegrass or spring oats mixed with hairy vetch). Turn the cover crop under about one month before planting in spring.

As a rule, avoid using herbicides for weed management in the home garden. No single available herbicide can be used safely on all kinds of vegetables growing in the garden. Also, herbicides are difficult to apply at proper rates with hand sprayers in small areas. In most cases, some areas may receive too little herbicide for effective weed control and other areas may receive such heavy rates that the crop is damaged or killed. You also risk damaging or killing other plants from spray drift when using herbicides. Finally, avoiding herbicides eliminates potential adverse health affects.

Direct marketers desiring any chemical pest management should consult the *Pennsylvania Commercial Vegetable Recommendations* guide (available through the cooperative extension office in your county).

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## DISEASES AND INSECTS

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Pest management programs for vegetables can involve both cultural and chemical control measures. Nonchemical methods should be used in order to prevent plant injury. Resistant cultivars, proper cultural practices,

and sanitation are key in an effective pest control program.

Diseases or insects may seriously reduce plant vigor, quality, and productivity. The success or failure of a fungicide or an insecticide is related to correctly identifying the pest problem, selecting the correct pesticide, the pesticide dosage applied, the application method used, weather conditions, and correct timing.

Always follow the directions on the container package when mixing and applying pesticides. Never increase the amount of pesticide or decrease the amount of water you mix with the pesticide.

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## DISEASE IDENTIFICATION AND MANAGEMENT

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### *Root Rots and Wilts*

*Symptoms:* Roots rot, leaves turn yellow, and plants wilt and die.

*Management:* Grow peas in a well-drained area where peas have not been grown for 5 years. Fertilize adequately and follow soil test recommendations. Grow cultivars resistant to common wilt and Fusarium (CW, F) as listed in the cultivar table.

### *Viruses*

*Symptoms:* Affected plants may have mottled leaves, distorted pods, and dead stems.

*Management:* When available, grow virus-resistant cultivars (BLRV, BYMV, PEV) as listed in the cultivar table. Also be sure to manage aphids since they can spread viruses (see aphid management section below).

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## INSECT IDENTIFICATION AND MANAGEMENT

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### *Pea Aphids*

Aphids are green, soft-bodied, pear-shaped, slow-moving insects up to 1/8 inch long. Colonies consist of winged and wingless adults and immature nymphs of various sizes. They usually congregate on the upper plant parts, on the undersides of leaves, inside immature folded leaves, on flowers, and on pods. As infestations build, aphids appear all along the stems and especially on the undersides of leaves. Plants become sticky from aphids' secretions, called honeydew.

Damage occurs when aphids insert their beaks into plants and suck out plant juices. This results in discolored foliage, stunted growth, curled leaves, and damage to the buds. Aphids can also spread virus diseases to plants on which they feed.

*Management:* Small infestations can sometimes be controlled by washing the aphids from plants with a stream of water. Naturally occurring parasitoids and predators of aphids are fairly common. To control heavy infestations, use insecticidal soap or

an insecticide labeled to control aphids in vegetables.

### *Root Maggots*

Maggots are small (1/4 inch), legless, and white. They feed on seeds and stems, preventing young plants from emerging. If plants do emerge, they fail to grow normally.

*Management:* Root maggot problems are worse in cool, wet soils high in organic matter. If you have problems with this insect, you may need to plant after the soil is warm to avoid damage. Replant if seedlings do not emerge within 7 to 10 days.

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