

# English and Edible Pod Peas

## Introduction

Peas (*Pisum sativum*) are a cool season vegetable that must be planted in early spring to ensure good yields in Kentucky. Types include the ENGLISH PEA (shelled for the fresh green seeds within non-edible pods), SUGAR SNAP TYPES (round, fleshy edible pods), and ASIAN POD TYPES (thin, flat edible pods). The latter are also referred to as snow peas.

## Marketing

Farm fresh pea sales at farmers markets account for most of Kentucky's commercial acreage. Other fresh market options include community supported agriculture (CSA) subscriptions, produce auctions, U-pick, and roadside stands. Sales to locally owned retail grocery markets may be an option for edible pod peas.

## Market Outlook

English peas are a minor part of Kentucky's commercial vegetable production. Though popular with many consumers, peas involve intensive harvest labor and will demand mechanical harvest for profitable larger-scale production. For most Kentucky growers, peas will be best used as an early season crop that offers flavor and variety to the direct market crop mix.

Fresh edible pod peas, on the other hand, are frequently used in Asian and other ethnic dishes and are a popular farmers market



item. Their popularity may be attributed to increased consumer interest in different types of cuisine and a greater ethnic diversity of the population. The current emphasis on the health benefits of eating fresh produce may also be a contributing factor.

## Production Considerations

### *Site selection, cultivar selection, and planting*

Peas are a cool season crop that grow best between 55° and 65° F. Seeds should be planted as soon as the soil can be worked and when soil temperatures reach 45° F. At soil temperatures above 75° F germination is greatly reduced; plant growth slows dramatically above 85° F. High temperatures also lead to poor flower development and fruit set. Stagger plantings for a continuous harvest of peas throughout the spring.

Peas can be grown on almost any soil and will tolerate a wide pH range from 6.0 to 7.5. However, lighter, sandy loam



soils are preferred since they warm up sooner in the spring, yielding an earlier harvest. Although peas do benefit from supplemental moisture they are very sensitive to excessive moisture. Select a well-drained site to reduce the potential of root and stem rots that often plague peas in wet soils. Peas should not follow other legumes, such as beans or southernpeas.

Most pea varieties that are used for commercial wholesale production are mechanically harvested, are self-supporting, and tend to have a determinate habit with large bunches of pea pods near the tops of plants. Varieties can have heavy foliage with lots of leaflets or they can be virtually leafless, with most leaflets forming tendrils instead. Leafless types are preferred for wholesale production due to the ease of harvest.

Indeterminate types are often used for smaller plantings. These cultivars can be planted in either double or single rows; plants in double rows will support each other. However, tall growing indeterminate varieties over 3 foot high will require the construction of plant supports. Trellising helps keep pods from touching the ground and promotes better air circulation, resulting in increased yields and quality. Trellising does add to labor and input costs.

#### *Pest management*

Damping-off and root rot diseases can pose a serious problem in wet soils. Other common diseases include anthracnose, Ascochyta leaf spot and pod blight, powdery mildew, and viruses. Cutworms, wireworms, seedcorn maggot, alfalfa loopers, green cloverworms, aphids, and armyworms are some of the potential insect pests occurring on peas.

#### *Harvest and storage*

English peas mature rapidly in the pod, while snow peas and sugar snap peas mature at a much slower rate. Nonetheless, peas should be monitored closely during pod fill to ensure that quality is maintained. Peas are either machine or hand-harvested and then must be promptly

cooled to maintain freshness and to preserve sugar content. Much like sweet corn, the sugars in peas can quickly turn to starch if they are not stored at cool (32° to 34° F) temperatures immediately after harvest. Peas stored in plastic bags will keep for 10 days under refrigeration without loss of quality.

ENGLISH PEAS are picked as soon as the pods are well-filled, but before they harden and fade in color. A single planting may yield 2 to 3 harvests. These peas are generally sold in the pod for shelling by the consumer. EDIBLE ASIAN POD TYPES are harvested while the peas are immature and pods are flat. Pods should be harvested every other day to prevent development of large seeds and tough pods. EDIBLE POD SUGAR SNAP PEAS can be harvested when peas begin to form, continuing up until pods are well-filled

#### *Labor requirements*

Labor needs per 1/5 acre yielding 1,000 pounds are approximately 40 hours for production (including hand weeding), 80 hours for harvest, and 6 hours for packing/grading.

### **Economic Considerations**

Initial investments include land preparation and purchase of seed. Additional start-up costs can include the installation of an irrigation system and trellis.

The following projected budget figures for 2008 are based on 1/5 acre of irrigated snow peas yielding 1,000 pounds. Production costs are estimated at \$700, with harvest and marketing costs at \$1,245. Total expenses, including both variable and fixed, would come to approximately \$2,135. Presuming gross returns of \$2,750, returns to land, operator labor, capital, and management would be approximately \$640. Assuming 40 hours of operator labor are necessary for production and assuming an operator wage rate of \$15 per hour, a return of approximately \$40 to land, capital and management can be expected for 1/5 acre snow peas.

## **Selected Resources**

- Vegetable Production Guide for Commercial Growers, ID-36 (University of Kentucky)  
<http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm>
- Edible-Pod Peas (Oregon State University, 2003)  
<http://hort-devel-nwrec.hort.oregonstate.edu/snowpea.html>

- Edible Pod Pea Production in California (University of California, 1997)  
<http://anrcatalog.ucdavis.edu/pdf/7233.pdf>
- Legume Production in Florida: Snapbean, Lima bean, Southernpea, Snowpea (University of Florida, 2007)  
<http://edis.ifas.ufl.edu/pdffiles/CV/CV12500.pdf>

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*Photos by Rosie Lerner, Purdue University (pea plants in bloom) and Heinz Schneider, Botanical Institute of the University of Basel, Switzerland, Botanical Image Database, [www.unibas.ch/botimage](http://www.unibas.ch/botimage) (snow pea pod) (Issued February 2009)*

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For additional information, contact, your local [County Extension](#) agent