Production and Marketing of Specialty or Novel Vegetables

Specialty or novel vegetables
- are available either part of the year or not at all,
- tend to have limited shelf life as a fresh product and will not ship long distances,
- are grown in limited acreage or volume, and
- require greater marketing efforts.

If you intend to produce specialty vegetables, identify the market channels early in the adoption process and test the market to determine customer preferences prior to ramping up production of a specific specialty vegetable. Encouraging product acceptance may require special promotions.

Specialty crops are more labor intensive and have higher costs of production than most mainstream vegetable crops. Because producing specialty vegetables requires more intensive management and marketing, all successful enterprises have succeeded based on three very important points: (1) researching the production of the crop; (2) researching the market potential and places; and (3) diversifying their crop production to spread out the economic risk. Since specialty vegetable growers do not produce their specialty crops in large volumes, consider selling your specialty vegetable to the consumer in small containers so they will feel comfortable paying a higher per-unit cost for specialty versus conventional vegetables. For roadside and farm markets, display your specialty vegetables on a stand with recipes and how to prepare them. When initially introducing a specialty or novel vegetable to your stand, if appropriate, offer free samples to your customers. The following descriptions of specialty or novel vegetables fit well in the current state and national promotion for vegetables, Buy Local, Buy Fresh.
**Bitter Melon**  
*(Momordica charantia)*

Bitter melon is a member of the Cucurbitaceae (gourd) family and is therefore a relative of squash, watermelon, muskmelon, and cucumber. In the United States varieties are listed as bitter melon, balsam pear, or fu kwa. Breeding programs and variety development for bitter melon have been confined to India, southern China, and other Asian countries. Many cultivars are available and vary in fruit size, shape, color, quality, earliness, yield, and disease resistance, but little is known about their comparative performance in this country. Serious growers of bitter melon should evaluate the varieties available from foreign seed companies and domestic suppliers of oriental vegetable seed to determine which types are best adapted to their specific local environment.

Bitter melon grows extremely well on raised beds with black plastic mulch and drip irrigation tape. The plant is a fast-growing, trailing or climbing vine with thin stems and tendrils. Male and female flowers are borne separately on the same plant and require insects for pollination. Flowers are borne singly in the leaf axils. Male flowers appear first and usually exceed the number of female flowers by about 25 to 1. The flower opens at sunrise and remains open for only 1 day. The fruits are characterized by a pebbly surface of smooth warts and smooth, lengthwise ridges. Harvest fruits 8–10 days after flower opening, while they are still firm and light green. The fruits will be 6–8 inches long, have a diameter of 1.5–2.5 inches, and weigh 4–6 ounces. Immature fruits are light green, oblong, pointed at the blossom end, and have white flesh. As the fruit begins to mature, the surface gradually turns yellow or orange. At maturity, it tends to split open, revealing orange flesh and a bright red placenta to which the seeds are attached. The immature fruits are a good source of vitamin C and provide some vitamin A, phosphorus, and iron. This subtropical vegetable is claimed to help people with type 2 diabetes control their blood sugar. The bitter flavor in the fruit is due to the alkaloid morodicine, which can be reduced somewhat by parboiling or soaking in salt water. Immature fruits are least bitter; ripe fruits are extremely bitter and are reported to be toxic to people and animals.

**Marketing tip:** Display the bitter melons with recipes and some nutritional information. Approximate storage life is 2–3 weeks. Handle and package with care to avoid bruises and abrasions.

**Figs**  
*(Ficus carica)*

Figs can be successfully grown in high tunnels in Pennsylvania and surrounding states from late April through October. Figs can be eaten fresh, dried, and processed. The fruit do have a short shelf life of 3–5 days. The recommended figs do not need pollination. The fruit is a hollow receptacle with hundreds of small, fleshy flowers on the inside. Several fig varieties can be grown in 3- to 5-gallon containers to help maintain plant size. Since subtropical fig trees grown outside in the soil can reach a height of 15–30 feet, figs grown in pots are maintained as bushes that are 5–6 feet high by 3–5 feet wide. Figs have a shallow root system and develop quite well in 3- to 5-gallon plastic containers in a shallow tank of water and nutrients. They tolerate a pH range of 5.5–7.5.

Rootstocks are propagated from cuttings, and both one- and three-year-old cuttings can be purchased from nurseries. Generally, one-year-old fig cuttings will produce in two years, whereas three-year-old cuttings will produce figs in the same year they are purchased. Several varieties do well in the Mid-Atlantic region and are recommended for trial.

The Brown Turkey fig has small to medium-sized, bell-shaped fruit with bronze-colored skin and amber to pink flesh. Brown Turkey also has good cold tolerance.
The Celeste fig has small fruit with strawberry-brown-colored skin, strawberry flesh, and is the sweetest of all the figs. Celeste also has good cold tolerance. Everbearing varieties produce fruit during six months of the year. The Italian Everbearing fig is similar to the Brown Turkey but larger. The Italian Everbearing is a large, reddish brown fig with pink, sweet flesh. It is a very prolific bearer and will set a new crop after the previous one. However, it will handle moderately cold winters if provided warm summers. The Italian Everbearing fig tree grows primarily as a large bush. If figs are grown in pots, be sure to protect the roots so that they are not exposed to below-freezing temperatures. One suggestion is to place the fig trees in cool storage (45°F) during winter months.

**Marketing tips:** Sell fresh figs at a farm market or provide a pick-your-own opportunity in a high tunnel for kids and adults. Since figs have been traced back to at least 5,000 B.C., use their historical value to promote sales.

**Ginger**  
*(Zingiber officinale Roscoe)*

Edible ginger is a tropical crop that optimally requires a 10-month growing season in Hawaii to produce mature ginger rhizomes. A shorter growing season results in reduced yields and rhizome size. Baby ginger or young ginger results from early harvesting and is a gourmet quality product with a tender, low-fiber texture and is mostly used for pickling. Although ginger is typically grown in field culture, other growing methods include a clean seed production method in containers of sterile medium, various hydroponic methods, and aeroponic cultivation. Both fresh and prepared ginger have medicinal uses.

Plant ginger rhizome “seed pieces” (50 grams) in 3- to 5-gallon pots in April. Ginger seed pieces can be purchased from Bernie Kratky at 1kratky@gmail.com or 808-969-8216 or Beau-