

Heirloom Vegetables

Introduction

Heirloom vegetables are vintage varieties which have been preserved by passing seed down from generation to generation. These varieties are generally 50 to 100 years old, although many are much older. All heirlooms are open-pollinated (i.e. they pollinate naturally) and usually breed true-to-type. Unlike hybrids, which have been bred largely for uniformity in size, shape, and ripening, as well as for durability in shipping, heirlooms have often been selected for flavor and tenderness.

Marketing

Many heirloom vegetables, such as tomatoes, are vulnerable to bruising, and are therefore not suitable for long-distance shipping. However, some heirloom tomatoes have been shipped short distances in recent years with special packaging. The best marketing opportunities in Kentucky are local farmers markets and roadside stands where heirloom crops are presented in a total mix of other high-quality in-season crops.

Heirlooms may yield a higher percentage of cull fruit, deteriorate more rapidly after harvest, and require additional handling for effective marketing. These factors often translate into higher retail prices at urban markets. However, because heirloom crops are most attractive to customers who value quality, flavor and heritage, these buyers are generally less concerned about pricing issues. In contrast, some Kentucky producers have found it difficult to move heirloom varieties in local rural markets



at premiums sufficient to justify the additional labor required.

Labeling produce as heirlooms, offering samples to taste, and providing free recipes are some ways to attract customers and boost sales. Wholesale markets can include local upscale restaurants, food co-ops and health food stores. Retail markets for heirloom seeds include farmers markets, garden clubs, agricultural expositions, gardening conferences, and the internet.

Market Outlook

The demand for heirloom vegetables is rapidly increasing, especially among consumers looking for unique flavors and freshness. Some Kentucky growers indicate that they are currently unable to meet this demand, in spite of continued production increases. While many vegetable crops are available as heirloom varieties, tomatoes, beans and cucumbers are the most popular. Quality heirloom root crops are good farmers market sellers in some areas of Kentucky. Heirloom seeds and transplants are also highly marketable.

Prices have remained strong as heirloom varieties have increased in popularity with consumers. More intensive



production requirements for heirloom crops may continue to limit their supply, but there is also a potential for prices to drop if the supply exceeds demand.

Production considerations

Seed sources

Heirloom seed may be initially obtained from commercial seed suppliers, through seed exchanges and/or as “handed-me-downs” from previous generations. Thereafter, heirloom growers can usually save their own seed from desirable varieties. Maintaining seed purity is essential to saving seed. This can be accomplished by isolating varieties of the same crop by distance and/or time of bloom. Some small-scale growers use blossom covers on mostly self-pollinated crops to prevent unwanted crosses. Seed should be harvested from several vigorous, disease-free plants of each variety. Processing after harvest can include fermenting the seed mass in water prior to drying on screens or wire mesh. Seeds need to be stored in air-tight containers in a cool, dry location or in a freezer. Properly stored, some seeds may be maintained for several years without significant loss in germination.

Site selection and planting

Choose a site that is well-drained and warms up quickly in the spring. Avoid low-lying fields that are subject to late frosts and high humidity. Cold-sensitive crops should not be planted until all danger of frost has passed and the soil has warmed sufficiently. Transplants can be grown in a greenhouse structure or hotbed, both for direct sales or on-farm use.

Begin with small plantings of unfamiliar crops/varieties, both to assess whether the cultivar will grow well in your situation and to determine marketability. Growers more familiar with hybrids may find that certain heirlooms can require changes in production practices. For example, most heirloom tomatoes are indeterminate and will need taller stakes and wider row spacing than hybrids. Since the majority of heirloom beans

are climbers, they will require the construction of a trellis for support before the plants begin to produce runners.

Some crops require a continuous supply of moisture, especially during fruit-set and development. UK research has reported greater yields, increased earliness and a cleaner harvest when growing most vegetable crops on raised beds with black plastic and drip irrigation. The moisture levels under the plastic must be carefully monitored when using this system.

Pest management

Disease and insect pressure may or may not be greater for heirlooms than it is for modern hybrids, depending on the season and cultivar. Many heirloom vegetables are grown organically or with a minimum of pesticides. Integrated pest management (IPM) strategies, including frequent scouting to monitor pests, may be needed to prevent or reduce losses. Controlling weeds, following a good rotation system and the use of beneficial insects can aid in pest control.

Harvest and storage

Heirloom varieties, which tend to have staggered ripening dates, are hand-picked at their peak. Yields, in comparison to hybrids, are completely cultivar-dependent and can range from prolific to sparse. Some researchers report that heirloom yields may be less reliable than modern hybrids and that there are often more culls. Their tendency toward a shorter shelf-life dictates that many heirlooms be sold within a few days of harvest; thus, little storage time is needed. On the other hand, because root crops store well for longer periods, there is less urgency to market them after harvest.

Some of the more fragile heirloom crops, such as tomatoes, will require special care to avoid bruising. To reduce handling, tomatoes may be picked directly into shallow, single-layer cushioned crates, boxes or other containers used to transport the fruit to market.

Labor requirements

Most heirloom crops are standbys from days before mechanical harvest and require hand harvesting to maintain quality. In addition, heirlooms are frequently more fragile and perishable than modern hybrids, requiring additional labor in handling. Producers who are saving their own seed will also incur additional labor which may be valued as much or more than their savings on seed. While heirloom crops may require anywhere from 10 to 40 percent additional labor time, many producers report the extra effort is currently compensated by higher prices.

Economic Considerations

It is not uncommon for heirloom varieties, especially tomatoes, to retail for prices much higher than commercial hybrids. Heirloom tomatoes in Atlanta, for example, were selling for twice the price of hybrid varieties during the 2004 growing season. Similarly, greasy bean varieties have retailed for five to six times the price of commercial, machine-picked beans at North Carolina farmers markets.

Heirloom producers must remember that higher prices do not automatically translate into greater profits. Additional operator/owner labor in producing, harvesting, marketing (particularly in areas unfamiliar with heirlooms), and saving seed increase the costs for heirloom production. While these may be non-cash expenses, the value of the producer's time must not be overlooked. Specialty crop producers should only seek those enterprises that yield reasonable returns for their time. A well-prepared budget projection that includes all production costs will better enable prospective growers to evaluate heirloom crops against other uses of their resources.

Finally, producers will nearly always maximize their profitability from producing heirloom crops by focusing on more than just selling their produce. Sales of seed, transplants, and even value-added products (such as dry bean soup

mixes) can diversify an heirloom enterprise and spread the producer's risk away from relying solely on fresh product sales. Savvy managers and marketers may also find ways to profit from their knowledge of specialty crops through agritourism opportunities (like on-farm workshops), speaking engagements, and other ways of making their knowledge pay.

More Information

Articles and publications on the internet

- Vegetable Production Guide for Commercial Growers, ID-36 (University of Kentucky)
<http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm>
- Heirloom Beans (Sustainable Mountain Agriculture Center, Inc., 1998)
<http://www.heirlooms.org/beans.html>
- Heirloom Tomatoes (Sustainable Mountain Agriculture Center, Inc., 1998)
<http://www.heirlooms.org/tomato.html>
- The Need for Seed: A Guide to Seed Saving (Victory Seed Company, 2000)
http://www.victoryseeds.com/information/brook_seed_saving.html
- Specialty and Heirloom Tomato Production and Marketing (Ohio State University, 1995-98)
<http://www.ag.ohio-state.edu/~vegnet/reports/spectomw.htm>

Organizations

- Appalachian Heirloom Seed Conservancy (Richmond, Kentucky) email:
KentuckySeeds@hotmail.com
- Seed Savers Exchange (Decorah, Iowa)
<http://www.seedsavers.org>
- Sustainable Mountain Agriculture Center, Inc. (Berea, Kentucky)
<http://www.heirlooms.org>

Books

- *Heirloom Vegetable Gardening* by William Woys Weaver, 1997, published by Henry Holt and Co.
- *Seed to Seed* by Suzanne Ashworth, 2nd ed., 2002, published by Seed Savers Exchange