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# Culinary Nutrition News: Heirloom Plants: An Edible Heritage

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“Heirloom” is a term used to describe something that has been passed down from generation to generation. While heirlooms are often used in reference to jewelry and furniture, today we are hearing more and more buzz around heirlooms in regards to plants. Heirloom plants are defined several different ways. Some consider heirlooms as those that have been preserved through generations by passing seeds down within a family or group. Others describe them as those that have been cultivated for a certain length of time, generally 50 to 100 years or more. While the definition of a true, bona fide heirloom is debatable, the consensus falls on the varieties that have been nurtured through open pollination (by wind, rain or insects) and passed down for several generations, if not centuries. These heirlooms can be

renewed by sowing the seeds harvested from each generation of plants, and therefore, they have remained genetically unchanged. Although they were once on the brink of being forever forgotten, heirloom plants have generated newfound attention and appreciation in kitchens everywhere. Why? Maybe it's their mouth-watering flavor, environmental impact, unique appearance, their history or even their amusing names.

## Lost and found

Industrial agriculture in America has drastically reduced the number of varieties of native open-pollinated plants. For example, only about 10 percent of the 16,000 apple varieties once found in North America are still available. Beginning early in the 19th century, as industrialization drew people from the countryside to cities, the presence of fruits and vegetables in the diets of Americans began dwindling. Around the turn of the 20th century, vitamins and their nutritional significance were discovered, securing fruits and vegetables as one of the four major food groups. Still, the consumption of fresh produce continued to decline through much of the 20th century, in part because quality and variety were also declining.

Due to the focus of modern food production on mass-market appeal, the most important

crop characteristics became uniformity and durability—meaning fruit and vegetable varieties were not necessarily selected based on flavor potential or eating quality. This demand caused industrial farmers to breed produce varieties that could withstand the rigors of mechanical harvesting, transport and storage. Consequently, few varieties dominated the market, while thousands of others disappeared, leaving the legacy of centuries of breeding to home gardeners.

In the 1970s, a growing movement began to salvage, perpetuate and distribute what remained of the open-pollinated seed varieties, which became known as “heirloom seeds.” Home gardeners and small-scale growers aided by the interest and support of scientists, historians, environmentalists and consumers began the art of seed saving. Subsequently, the end of the 20th century spawned renewed attention to the diversity and quality of produce. On the heels of the rediscovery of traditional food production and its pleasures, eating locally grown foods, was the once forgotten “heirloom.” Today, the number of heirloom plant varieties continues to grow, and among the many available are beets, carrots, corn, dried beans, eggplant, flowers, herbs, lettuce, melons, peas, peppers, potatoes and tomatoes.

## Reaping the benefits

The reasons for today's resurgence in preserving heirloom plant varieties seem to be as diverse as the varieties themselves,

There are more than 300,000 edible plant species and only 2,000 are cultivated.

from practical epicurean interest and pure nostalgic purposes to social and environmental concerns. One major reason for the preservation of heirlooms is to maintain their genetic traits for future use. Since each heirloom variety has been grown and harvested for generations in a specific region, they have strategically adapted to that area's climate, soil and pests. Each has become genetically unique and developed a certain resistance to diseases and pests. In other words, when these varieties are not maintained, the gene pool grows smaller and smaller, which could lead to increased disease and pest problems.

Not only are heirlooms imperative to biodiversity, but some claim that these varieties are superior in nutritional quality. This idea is founded on the speculation that unlike commercially-grown produce, heirlooms are usually picked when they're ripe and, therefore, may contain more nutrients. Another supporting factor for their superiority comes from the benefits provided by phytonutrients, protective plant compounds found in the pigments of colorful fruits and vegetables. Heirloom varieties tend to stretch the spectrum of colors seen in a given fruit or vegetable. For instance, heirloom tomatoes can come in varieties that are yellow or orange, which signify the presence of healthy, vision-supporting beta carotene, while black and purple varieties suggest the presence of antioxidant-empowering anthocyanins.

## Taste of the past

The most prominent and exciting features of heirloom fruits and vegetables are their array of shapes, colors, textures and flavors. Unlike commercially-grown produce that often looks similar in size, shape and color, each heirloom is unique in appearance. Furthermore, many heirlooms have been selected and maintained based on their taste and texture through generations. The flavor of an heirloom is often described as tasting the way a fruit or vegetable should taste. In other words, an heirloom tomato tastes like a tomato should, an apple like an

apple should or a bean like a bean should, and so on. However, it should be noted that heirlooms may have a slightly different flavor profile than their commercial counterparts that we are accustomed to. While heirlooms do not necessarily call for special treatment in the kitchen, they do suggest a need for some culinary ingenuity and the creation of new, innovative dishes that highlight the history-making heirloom.

## Saving seeds

There are thousands of cultivars of heirloom fruits and vegetables, with variations in taste, size, color and markings, as well as climate adaptability. The list below was prepared by Clemson University's Karen Russ, HGIC horticulture specialist, and David Bradshaw, extension horticulture specialist (<http://www.clemson.edu/extension/hgic/plants/vegetables/gardening/hgic1255.html>), and is based on those varieties that flourish in the climate and conditions of South Carolina.

### Lima and Butter Beans

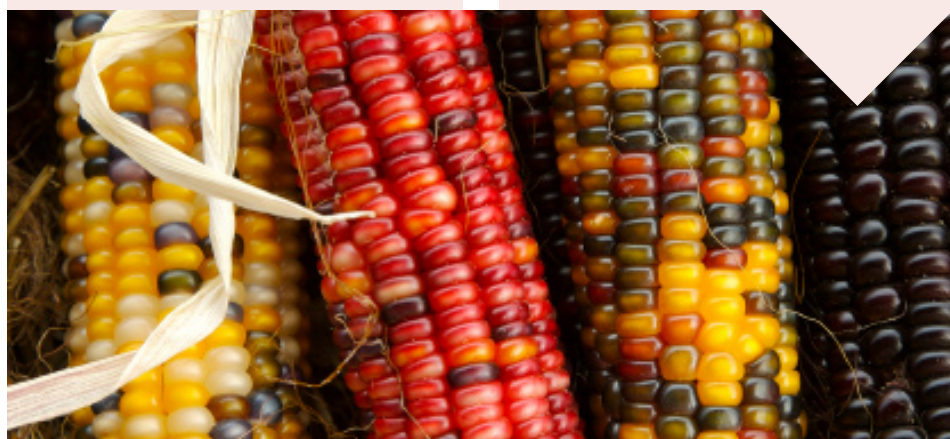
- **Christmas Lima:** Does well in hot, humid climates. Climbing vines produce large seeds that are white with maroon streaks, and have a wonderful flavor.
- **Snow on the Mountain:** A beautiful, heavy-producing pole lima from the 1800s. It has deep maroon seeds with white markings.
- **Jackson Wonder Bush:** A productive and drought-tolerant 1880s vintage heirloom from Georgia with purple and black mottling.

### Pole, Snap and Dry Beans

- **Cherokee Trail of Tears Pole:** These heirloom pole beans were carried by Cherokee Indians on the Trail of Tears. They have purple-striped pods with shiny black seeds.
- **Greasy Cutshort Pole:** Has shiny leaves that give a greasy appearance. Good eaten as snap beans.
- **Jacob's Cattle:** A small, pretty bean, pure white with deep maroon splashes. Excellent quality for baking and soups.
- **Rattlesnake Pole:** Has purple streaked seven-inch green pods that curl like a snake. The buff-colored beans with black stripes are good as shell beans or snaps. Vines grow 10 feet tall.
- **Tongues of Fire:** An early snap bean with beige and brown markings and an excellent flavor.

### Corn

- **Golden Bantam:** First introduced in 1902, this is the corn all others were compared with.
- **Country Gentleman:** A popular old-fashioned shoe peg variety with irregularly spaced white kernels.
- **Stowell's Evergreen:** The standard, late-season white sweet corn before Silver Queen. Ears are 8 to 9 inches long.
- **Bloody Butcher:** A flint corn used for flour-making or decoration. The ears are bright red.
- **Strawberry Popcorn:** An old variety, grows 2-to 3- inch ears that are excellent for decorations in the fall, then for popping in the winter.



## Cucumbers

- **Lemon:** Produces many lemon-colored and lemon-shaped fruit on fast-growing vines.
- **White Wonder:** An old variety that matures to an ivory white color. The 7-inch fruit is easy to see at harvest.

## Lettuce

- **Deer Tongue:** A pre 1900 heirloom that is named for its pointed leaves and thick mid-rib. It is heat tolerant and slow bolting.
- **Tennis-ball:** Was a popular lettuce in the vegetable garden at Thomas Jefferson's Monticello. Tennis-ball lettuce has been grown since the late 18th century, and it is the parent of Boston lettuce types.

## Melons

- **Jenny Lind:** Grows to 1 to 2 pounds, with sweet, lime green flesh. An heirloom from New Jersey, it was named in 1846.
- **Hearts of Gold:** A popular old-timer. The 3-pound melons have thick, fine-grained flesh with a spicy flavor. Flesh is salmon/orange in color.



## Potatoes

- **Russian Banana:** A fingerling potato that is yellow-fleshed with a pleasantly waxy texture. It varies from finger size up to the size of an actual banana.
- **Yellow Finns:** Medium in size, with yellow skin and yellow flesh.
- **Ruby Crescent Fingerling:** Has small tubers between two to six inches long. Ruby-red skin covers deep yellow flesh.

## Okra

- **Longhorn:** Has long pods that are tender up to six or eight inches long. It dates from the 1880s.

## Southern Peas or Cowpeas

- **Calico Crowder:** A medium-sized, heirloom, climbing crowder pea, white with maroon splotches. Is good eaten fresh or dried.
- **Kreutzer:** An excellent cowpea that produces quantities of attractive beige and brown cowpeas with darker brown specks.
- **Pink-Eye Purple-Hull:** Has cream colored seeds with maroon eyes in pods that turn purple when mature. Vigorous, heat-loving and drought-tolerant plants with little vining.
- **Washday:** Named because they cooked up fast on busy washdays. This tan/yellow variety is a good yielder that makes a tasty soup. It is a half-runner type from the 1800s.

## Squash and Pumpkins

Winter and summer squash and pumpkins are all related. Crossing readily occurs between varieties of the same species. No crossing occurs between different species. The commonly grown species are: banana, buttercup, cushaw and hubbard squash (*Cucurbita maxima*); butternut squash (*Cucurbita moschata*); acorn, crookneck, and scallop squash, zucchinis and most pumpkins (*Cucurbita pepo*); and Mexican gourd (*Cucurbita ficifolia*).

- **Cushaw Green-Striped Squash (C. mixta):** Has good sized white fruits with green stripes and long, curved necks. It is good for pies and baking. It is drought-tolerant and a good keeper.



## Pumpkins and Related Squash (*Cucurbita pepo*)

- **Rouge Vif d'Etampes:** Also known as the Cinderella pumpkin. This French heirloom pumpkin is productive and beautiful. The fruits are flat, burnt orange to red, and deeply ridged, ranging from one to two feet across.
- **Connecticut Field:** An old standard in field pumpkins. Large, 20 to 35 pounds.
- **Small Sugar:** A sweet, tasty pumpkin that grows to nine inches across, on short, space-saving vines.

## Tomatoes

- **Brandywine:** The most famous heirloom tomato. This Amish heirloom originated in Chester County, Pa., in 1885. The flavor and texture are superb. Fruit quality stays high late in the season. The plant often appears disease resistant. This potato-leaf variety makes a half to a pound pinkish-red fruits.
- **Cherokee Purple:** One of the most widely adapted of the purple or black tomatoes. The flesh inside is brick red and soft, and it has good flavor. Pinkish/brownish/purplish delicious fruits on indeterminate vines.
- **Georgia Streak:** A yellow and red beefsteak indeterminate heirloom from Georgia. Makes beautiful slices for summer salads.
- **Yellow Pear:** Has prolific vines that produce loads of one- to two-inch pear-shaped fruits with good flavor.
- **Arkansas Traveler:** Produces medium-sized, dark-pink tomatoes on heat-tolerant vines.
- **Mortgage Lifter:** Produces pink to red, medium-sized to large fruit. Also called Radiator Charlie's Mortgage Lifter.

## Watermelons

- **Moon and Stars:** Another heirloom from the Amish. These 15- to 30-pounds melons have sweet red/pink flesh. The dark green rind is covered with bright yellow spots. The leaves of the plants are also spotted.

## Bottom line

A healthy food system should accommodate both hybrids and heirlooms, with the main focus on supplying a greater variety of plant foods. It's estimated that there are more than 300,000 edible plant species on earth and only about 2,000 that are cultivated to some extent. With so many forgotten varieties of fruits and vegetables to revive, these are good times for curious and adventurous eaters and chefs alike.

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## About the American Culinary Federation and the Chef & Child Foundation



The American Culinary Federation, Inc., established in 1929, is the premier professional organization for culinarians in North America. With more than 20,000 members in 225 chapters nationwide, ACF is the culinary leader in offering educational resources, training, apprenticeship and accreditation. In addition, ACF operates the most comprehensive certification program for chefs in the United States. ACF is home to ACF Culinary Team USA, the official representative for the United States in major international culinary competitions, and to the Chef & Child Foundation, founded in 1989 to promote

proper nutrition in children and to combat childhood obesity. For more information, visit [www.acfchefs.org](http://www.acfchefs.org).

## About Clemson University



CU CHEFS® (Clemson University's Cooking and Healthy Eating Food Specialists) instructional program, led by Dr. Margaret Condrasky, associate professor in Food Science and Human Nutrition, is a registered trademark of Clemson University designed to promote changes in menu planning, food purchasing, food preparation and food consumption behaviors with a goal of fostering good health through healthy nutrition. 'Culinary nutrition' is the application of nutrition principles combined with food science knowledge displayed through a mastery of culinary skills. The results are healthy eating behaviors grounded in culinary confidence and nutrition alertness. CU CHEFS® promotes an awareness of the latest trends in foods and nutrition through the demonstration of proficient culinary skills to produce flavorful, health-inspired menus for schools, churches and restaurants. Clemson University, located in Clemson, S.C., is ranked 22 among the nation's top public institutions. Since 2001, Clemson has doubled external research funding, raised the academic profile of the student body, increased retention and graduation rates, launched high-profile economic development and earned national accolades, including being named *Time's* Public College of the Year.

## About French's Foodservice



French's Foodservice is proud to sponsor this series of nutritional articles authored by Clemson University for the American

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## FOR MORE INFORMATION

**Seed Savers Exchange** is a nonprofit organization of gardeners dedicated to saving and sharing heirloom seeds. Since 1975, Seed Savers Exchange members have passed on approximately 1 million samples of rare garden seeds to other gardeners. Visit: [www.seedsavers.org](http://www.seedsavers.org)

**Seeds of Diversity** is a Canadian volunteer organization that conserves the biodiversity and traditional knowledge of food crops and garden plants. Formerly known as the Heritage Seed Program, a project of the Canadian Organic Growers since 1984, Seeds of Diversity grows, propagates and distributes more than 2,900 varieties of vegetables, fruit, grains, flowers and herbs. Visit: [www.seeds.ca](http://www.seeds.ca)

**Renewing America's Food Traditions (RAFT)** is an alliance of food, farming, environmental and culinary advocates who have joined together to identify, restore and celebrate America's biologically and culturally diverse food traditions through conservation, education, promotion and regional networking. Visit: [www.albc-usa.org/RAFT](http://www.albc-usa.org/RAFT)