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Kale: The "New" Old Vegetable

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Kale is the one of the oldest forms of cabbage, originating in the eastern Mediterranean. Kale is thought to have been used as a food crop as early as 2000 B. C. Theophrastus described a savoyed form of kale in 350 B.C. Travelers and immigrants through the ages have introduced this green vegetable to many parts of the world.

The curly leaves of kale are among the most nutritious vegetables. One 3.5-ounce serving of kale provides all the adult daily requirement of vitamin A and C and 13 percent of the calcium requirement. Kale is used as a green vegetable, steamed and served with butter or vinegar, or in soups. Much of the present production is used as decoration on salad bars since kale is less likely to wilt than lettuce or other greens.

Kale is tolerant of cold temperatures and is especially sweet following a light frost. Production is mainly from Norfolk, Virginia to Long Island, New York where it can be spread over a long, mild winter season. Smaller production areas are scattered throughout the U. S.

Cultivars of kale differ primarily in leaf color and texture, but selections and availability are limited. Scotch types have extremely curled, wrinkled, and finely divided leaves with color ranging from bright green to yellowish-green. Varieties include Dwarf Green Curled Scotch, Dwarf Blue Curled Scotch, and Tall Green Curled Scotch. Hybrid kale such as Blue Knight, Blue Armor, and Winterbor tends to be more uniform in plant size, leaf texture, and the preferred blue-green color. Blue-green color is commonly associated with greater cold tolerance. Smooth-leaf Siberian kale (Hanover salad) is not commonly grown. Some specialty seed dealers sell Red Russian kale, an heirloom cultivar with wavy leaves. The veins and stems of Red Russian are blue-green in warm weather but turn red in cold weather. Varieties sold as "flowering kale" are used as ornamental plants or for decoration. Although edible, it is not as palatable as regular kale. Seed of "flowering kale" is available through flower seed dealers rather than vegetable seed dealers.

Kale can be transplanted, but most of the production is direct-seeded into heavy, friable loam soils. These soils, with a pH of 6.5 to 6.8, produce the heaviest yields and are preferred. As with cabbage, kale is a heavy feeder. For a yield of 1000 lbs/A of greens, suggested fertilizer rates are 40, 12, and 40 lbs/A of actual N, P, and K banded under the seed followed by a side-dressing of 15 to 30 lb/A of N

approximately 1 month after seeding. Seeding is usually 1/4-inch deep, with 6-inch in-row spacing and up to 36 inches between rows. For smaller gardens, a closer in-row spacing is possible with the thinnings used as an early crop. Home gardeners may harvest only the more mature outer leaves allowing the plant to produce new leaves throughout the spring or fall. Commercially, the crop is produced for a one-time harvest about 40-55 days after planting with sequential plantings at 2-week intervals to provide continuous supply for the market. Quality deteriorates when temperatures exceed 85 degrees. For an early spring crop of kale, Nebraskans can begin sequential seedings when soil temperatures reach 45 degrees. For a fall crop, plantings can be made in late July and August. Although kale flavor improves with frost, plants should be almost market size before cold weather.

Leaves should be young and tender at harvest. After harvest, the leaves are washed, graded, and either bunched or packed. Containers include bushel baskets, crates, and cartons (12 or 24 bunches), or wirebound crates. For local distribution, ice may not be necessary. All long-distance shipping requires ice to preserve freshness. Kale can be stored for 10-14 days at 32 degrees and 90-95 percent relative humidity.

Pest and disease problems are similar to those of cabbage.

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