Kale

Educator | VermontHarvestoftheMonth.org

Harvest of the Month provides resources for the cafeteria, classroom, and community to promote the use of local, seasonal foods.

History of Kale

Kale is a member of the Brassicaceae family, also known as the cabbage family, along with broccoli, Brussels sprouts, cabbage, cauliflower and kohlrabi. It originated in the Mediterranean region and was brought to the United States from England in the 17th century. Kale is a very hardy plant; it can withstand frosts and snowfall, making it an excellent staple food in the winter months. Kale plants range in color from white-green and yellow-green to blue-green and violet. Some varieties have been developed specifically for ornamental purposes.

Large Green-Leafed Varieties

- **Collards:** Champion, Georgia
- **Chard:** Fordhook Giant, Golden, Pink Passion, Rainbow Mix, Ruby or Rhubarb Red, Silverado

Sources: *The Visual Food Encyclopedia, The Encyclopedia of Healing Foods, GMFTS.*

Fun Facts

- Out of the quite large cabbage family, kale is the closest relative to wild cabbage.
- Kale and collards are very similar; the difference is that kale has uneven leaf edges (serrated, lobed) and is less heat-tolerant.

Reading Corner

Children's Books

» *Captain Kale and the Super Foods*, by Amy Roth

Varieties of Kale:

Lacinato (Dinosaur)

Red Russian

Ripbor

White Russian

Siberian

Vates

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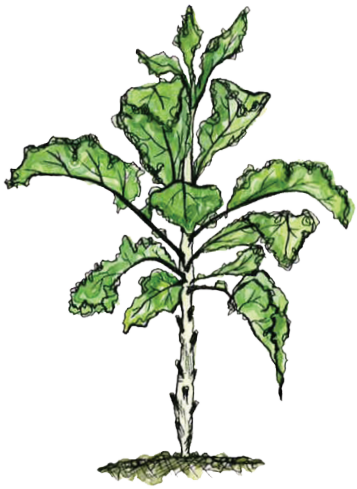

Benefits

Kale is an excellent source of vitamin A and C and the mineral potassium. It is a good source of vitamin B6 (pyridoxal phosphate) and the mineral copper.

Classroom Connections

English | *The Autobiography of Kale*

Supplies needed:
Several varieties of kale leaves or images of them; it would be helpful to include photographs exhibiting each season.

Directions:
- Have students imagine they are a kale plant and describe their life from seed to plate.
- This is a great opportunity to discuss the life cycle of a plant, as it lives through the seasons.

Guiding words:
Winter: eaten, frost-resistant, hardy, death
Spring: warm soil, planting, birth, beginning, small leaves, rain, sun, nutrients
Summer: rain, sun, nutrients, growth, large leaves, long days, harvesting (from the bottom up), eaten (by humans and insects)
Fall: large leaves, harvesting (from the bottom up), eaten (by humans and insects)

Source: *GMFTS*.

Science | *Parts of a Leaf*

Supplies needed:
Drawing tools, journal page or handout, kale leaves or images of them.

Directions:
- Have students draw and label a kale leaf through observation.
- On the board, you can draw the parts along with the students and discuss the role of each part as you go.
- Key words: stem (petiole), veins, blade.
- If age-appropriate, discuss chlorophyll and its role in photosynthesis.

Leaf Parts:
Stem (petiole): attaches the blade to the main stem of the plant.
Veins: carry nutrients throughout the plants.
Blade: absorbs sunlight.
Photosynthesis: is the process leaves use to convert light into food for the plant. Carbon dioxide and water are used and oxygen is released. This process is *not visible*.
Chlorophyll: is what makes leaves green! It is involved in the process of photosynthesis. This pigment is *visible*.

Source: *Vital Communities*.
Note: *For an extended, standards-based version of this lesson plan, please visit Vital Communities' Harvest Lessons: www.vitalcommunities.org/agriculture/uvfts/harvestlessons.cfm*

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