



Vegetables

Training for 4-H Horticulture ID and Judging Contest



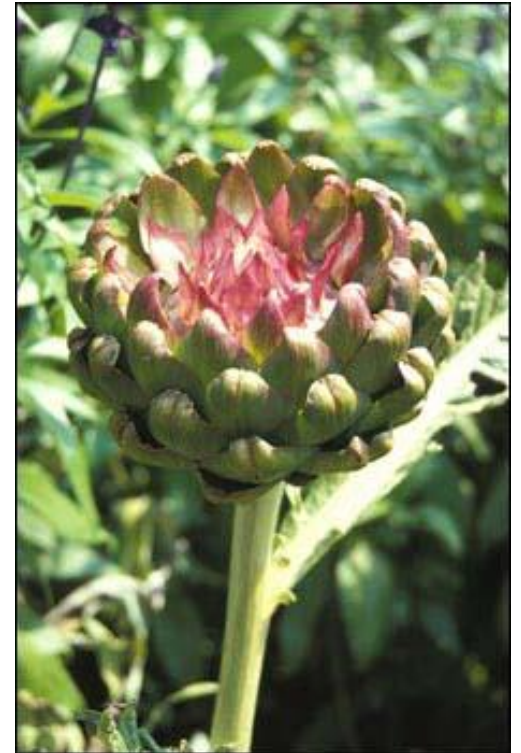
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Artichoke, Globe

(Cynara scolymus)

- The edible heads are immature, unopened flower buds. Each large bud is globular, bluntly pine-cone shaped and composed of many layers of deep green bracts.
- The edible parts are the fleshy bases of the bracts and the center or heart to which the bracts and violet colored flower parts are attached.
- The plant is tall-growing, spreading, with deeply notched, pointed leaves which attach to a sturdy stem several inches in diameter.



Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database / USDA SCS. 1991. Southern wetland flora: Field office guide to plant species. South National Technical Center, Fort Worth.



Jennifer Anderson @ USDA-NRCS PLANTS Database



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Artichoke, Jerusalem

(Helianthus tuberosus)

- The edible tubers are elongated, knobby, white, red or purple skinned. Several tubers are clustered at the base of each stem.
- The plant is upright, tall-growing with bristly, woody stems, green pointed leaves (oppositely arranged), and yellow sunflower-like flowers.



Asparagus

(Asparagus officinalis)

- The edible portion is the above-ground stem or "spear" which grows from a below-ground crown.
- They have overlapping scales that are triangular and the tips are sometimes purple.
- Spears are harvested when they are immature and tender.
- Foliage is light green, fern-like and soft to the touch.
- Small fruits are round and [berry-like](#). When young, they are green, turning red when mature; then black when fully ripened.



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UNIP(Grain Legumes Portal)

Bean, Lima

(Phaseolus lunatus)

- Lima beans are grown for their edible seeds which are produced in pods. Pods are broad, short, flat, and pointed at the blossom-end.
- Each contains 3-5 flat, oval seeds which may be colored in a rather wide range of hues, from white to light green to shades of red and black.
- Plants are usually bushy but are sometimes climbing.
- Leaves are glossy green, crisp-textured and pointed.



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Bean, Snap

(Phaseolus vulgaris)

- Plants may be bush or vining type.
- Leaves are compound with 3 large, somewhat heart-shaped, rough-textured dark green leaflets per leaf.
- Size, shape, and color of pods vary widely from small green snap, to yellow wax types, to larger, wider green pole varieties.
- Seeds are round and slightly elongated, ranging in color from white to black and many in-between shades. Both the pod and the seeds are edible.
- The flower is pink in color.



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Beet

(Beta vulgaris)

- The leaves are dark green with reddish veins, and are attached to long reddish upright leaf stems that form a rosette at their base.
- The edible root is round, somewhat top-shaped and deep red in color, sometimes yellow.
- The seed is tan with a rough corn cob appearance, similar to chard.



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Broccoli

(Brassica oleracea, Italica group)

- The plants bear edible flower heads (*florets*) which are clusters of deep green flower buds arranged on branches sprouting from a thick stalk.
- The heads are harvested with a portion of the tender stalk before the buds open into tiny yellow flowers. (Broccoli resembles cauliflower, but is green rather than white).
- Leaves are similar to collards, but much smaller.
- Seeds are similar to cabbage seeds.



Brussels Sprouts

(*Brassica oleracea*, Gemmifera group)

- The plants are upright with a single stalk thickly set with small, firm, cabbage-like heads.
- Leaves are similar to broccoli and cauliflower, but more circular in shape and grow in whorls.
- Seeds are similar to cabbage.



Cabbage

(Brassica oleracea, Capitata group)

- Large, glossy, tightly-wrapped leaves are cupped into round, sometimes pointed, firm heads.
- The plant grows into a rosette near the ground or on a short stalk. Color may be dark green, yellowish green or deep red.
- Leaf texture may be smooth or crinkled.
- Seeds are round and brownish-black in color.



B. campestris, Chinensis group
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B. campestris, Pekinesnsis group (Bok Choy)
UF/IFAS

Cabbage, Chinese

(*Brassica campestris*,

Chinensis or Pekinensis group)

- Long, cylindrical or round, upright heads are formed by tightly bunched leaves with large, fleshy midribs.
- The base of the head resembles celery and the leaves are similar to mustard.
- Bok Choy is a non-heading type with several fleshy, white leaf stalks tipped with a glossy dark-green leaves.
- Seeds are round and cabbage-like.



Cantaloupe

(Cucumis melo, Reticulatus)

- The plant vines along the ground.
- Leaves are rough and lobed, similar to cucumber, but not as angular.
- Fruit is round to oval, sometimes ribbed, sometimes with a netted surface and has interior seed cavity. The edible flesh is orange.
- Flowers are bright yellow. The female flower is identified by the ovary below the petals. The male flower is held on a longer stem and does not develop a fruit.
- Seed is similar to cucumber seed, but a little larger and more orange in color. Honeydew is a variety of cantaloupe with smooth skin and pale green flesh.



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Carrot

(Daucus carota var. sativa)

- The edible part of a carrot is the yellowish orange root that varies in shape from long-cylindrical to short and blunt.
- The leaves are compound, deeply cut with a lacy appearance and form from the base of the one to two foot tall plant.
- Seeds are small, straw to brown in color, flat on one side and curved on the other, with 4 to 6 ridges on the curved side, similar to celery except much larger. Carrots are biennial. They will produce a white umbel flower in the second growing season if the roots are not harvested.



Cauliflower

(Brassica oleracea, Botrytis group)

- Long, tapering, cabbage-like leaves surround a central, terminal, fleshy, creamy white, tightly-formed head similar to broccoli, though individual flower buds are not present.
- There are green-headed and purple-headed varieties.
- Cauliflower seeds resemble those of cabbage.



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Celery

(Apium graveolens var. dulce)

- Flat, notched, yellowish-green leaves, which are lobed and toothed, are attached to crisp, fleshy, smooth-ribbed leaf stems joined at the base to form long cylindrical stalks. Both the stalks and leaves are edible.
- The striped seeds are very similar to carrot seeds, but much smaller.



Chard, Swiss

(*Beta vulgaris*, Cicla group)

- The edible leaves are large, smooth, beet-like and grow upright from a central crown.
- Each leaf has a long, usually white, fleshy *petiole* or stem although novel varieties exist that have yellow, reddish or orange *petioles*.
- Leaf color varies from medium to deep green.
- Seeds are corky, similar to beet seeds.



Chayote

(Sechium edule)

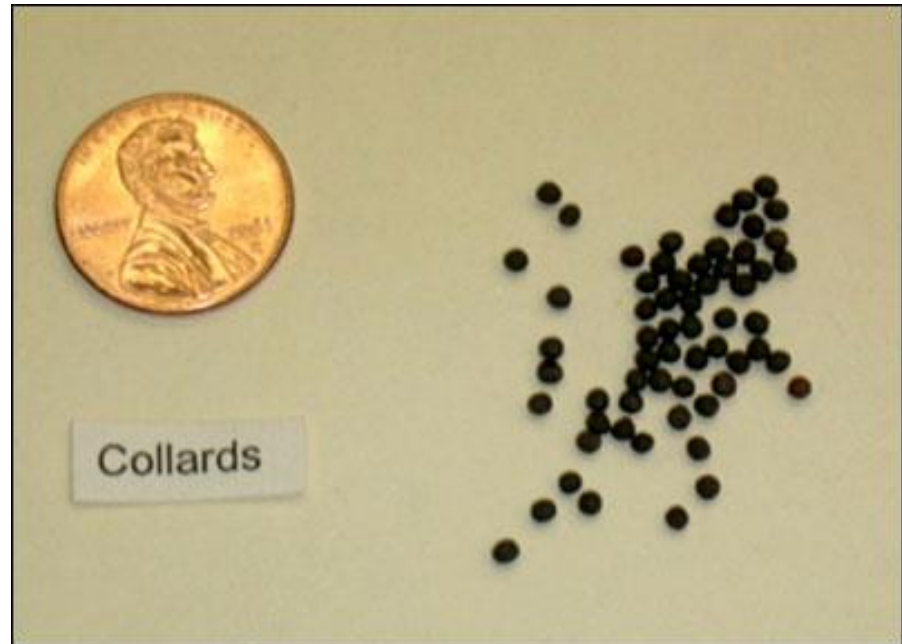
- This is a vigorous, climbing vine with leaves that resemble cucumber.
- The light-green pear-shaped fruit can weight as much as 2-3 pound (average is 8 ounces).
- Each fruit contains a single flat edible seed.
- Fruits are slightly flattened, sometimes grooved and prickly, but usually smooth.



Chives

(Allium schoenoprasum)

- Chives are small, dark green plants that grow in clumps.
- Leaves are very thin, tubular and hollow.
- Plants do not form onion bulbs.
- The flower is lavender, roundish and edible.
- This herb gives foods a mild onion flavor and is used to flavor potatoes, soups, salads, dips, and fish.



Collards

(Brassica oleracea, Acephala group)

- The plant, which grows in a rosette, does not form a head.
- Glossy, blue-green, cabbage-like leaves are attached by slender stems to an upright, single, round stalk which may reach several feet in length.
- Leaves have a prominent white mid-vein, and are flat with ruffled edges.
- Seeds resemble those of cabbage.



Cucumber

(Cucumis sativus)

- The cucumber plant is vining with large, lobed, triangular, green, bristly leaves and long petioles.
- Fruits are elongated, cylindrical, yellow-green to dark green and either spiny or smooth. Cucumbers are eaten raw or pickled. Size is variable, depending on variety.
- Flowers are male or female, small, yellow and somewhat cupped. The female flower produces the fruit and has a tiny cucumber-like appendage which is the undeveloped ovary. The flowers and fruit develop in the leaf axil, where the leaves join the stem.
- Seeds are creamy-white, flat, buttonhole shaped, tapering at both ends and about 3 times longer than wide.



Eggplant

(Solanum melongena var. esculentum)

- The plant is large, upright and branching.
- Leaves are broad and slightly fuzzy with scalloped margins. Stems are prickly, especially near the leathery, green cap where the fruit attaches.
- Fruits are oblong to round and may be green, white, yellow, bronze, orange, purple or most commonly purple-black. Some varieties have small (1-inch diameter) fruits, while most average about 1 pound.
- Flowers are small, somewhat star-shaped and lavender in color.
- Seeds are very similar to pepper seed but are smaller and darker in color.



Endive

(Cichorium endivia)

- Endive, sometimes called chicory, has upright to spreading growth similar to leaf lettuce but does not form a head.
- Leaves are narrow, deeply cut and fringed, with white to pale green midribs. The broadleaf type is called escarole.
- Seeds are elongated, straight, and slender.



Escarole

(Cichorium endivia var. latifolia)

- Escarole, or broad-leaved endive, has broad, pale-green, and slightly firm leaves arranged in a loose head. It is less bitter than endive.



Forest & Kim Starr, [Hear.org](https://www.hear.org/).



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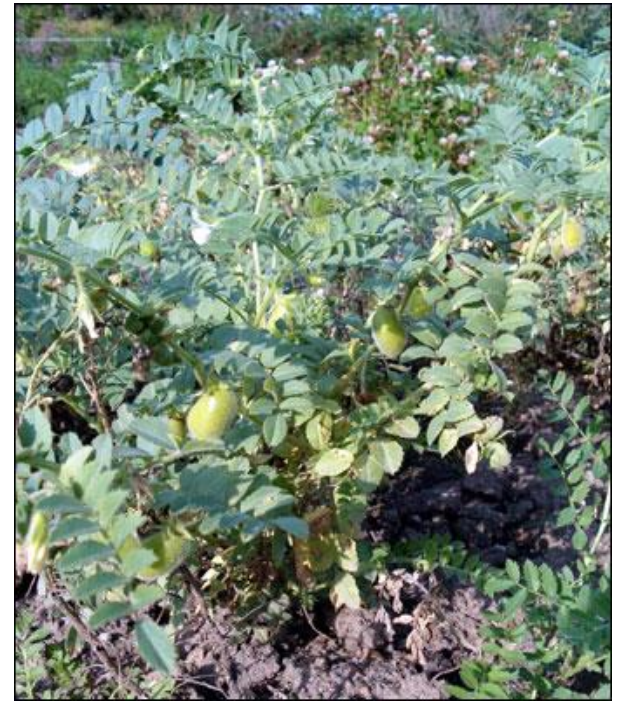


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Fennel, Common Fennel

(Foeniculum vulgare)

- Fennel is an herb grown for its shoots, leaves, and seeds which give foods a licorice-like flavor.
- The plant resembles dill, with narrow, feathery leaves, bright yellowish green hollow stems, and umbrella-like seed structures.
- The flowers are yellow *umbels*.



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Garbanzo

(Cicer arietinum)

- Garbanzo is a low bushy plant with hairy stems and compound leaves.
- The edible seeds, borne in pods, are rounded, flattened on the sides, somewhat wrinkled, and about 1/3 inch in diameter.



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Garlic

(Allium sativum)

- The plant is onion-like in appearance.
- Green leaves are flat and have an onion or garlic odor when crushed.
- The white to purplish bulbs may be separated into sections (edible cloves) and have a distinct, pungent odor. The bulb and cloves have a white, papery covering.
- The flower is an umbel, held at the end of a stalk that arises from the bulb.



Kale

(*Brassica oleracea*, Acephala group)

- Kale grows as a rosette and does not form a head.
- The leaves are the same general size as collards, but with very frilled margins. Color is deep green and texture is very coarse and crisp. Some ornamental varieties show colorful combinations of red, white, and green.
- Seeds are cabbage-like.



Kohlrabi

(*Brassica oleracea*, Gongylodes group)

- The leaves, which are similar to collards (but smaller), rise from turnip-like enlargements of the stem just above ground level. This swollen stem is light green or purple in color.
- Seeds are cabbage-like.
- Both the leaves and bulbs are edible.



Leek

(Allium ampeloprasum, Porrum)

- The plant is very similar to a large green onion.
- Leaves are smooth and flat and are arranged in a fan-like fashion spreading in 2 directions. The white leaf base is the edible portion. Unlike garlic, there is very little bulb development.
- Seeds are black and onion-like.



Lettuce

(Lactuca sativa)

- Lettuce plants grow as a loose or firm rosette of leaves. As the plant matures, the leaves increase in number.
- Lettuce seeds are small, tapered at each end and may be straw or black in color.
- **Crisphead (Iceberg)**—Large firm and round heads are surrounded by broad green overlapping wrapper leaves attached at the bottom.
- **Leaf**—Heads are loosely formed with leaves varying greatly in color (red, bronze, yellow, green), size and shape (wavy, notched or frilled).
- **Butterhead**—Heads are soft, velvety smooth, surrounded by green wrapper leaves.
- **Romaine (Cos)**—Leaves with prominent central ribs are gathered in a loose fashion to form an upright head similar to Chinese cabbage.



Malanga

(Xanthosoma spp.)

- Malanga has elephant-ear-like leaves which are about 2 feet wide by 2½ feet long. The upper leaf surface is rather smooth and sometimes waxy, and the lower surface is ribbed.
- The malanga plant may attain a height of 5 feet or more.
- A central large tuber ([corm](#)) is formed at the base of the plant with a cluster of edible [cormels](#) around it. The cormels are grayish brown to black.



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Mustard

(Brassica juncea var. crispifolia)

- The plant is erect, 1-3 feet tall, and leafy. Leaves may be elongated or broad with smooth margins or margins may be notched or curly.
- Mustard and turnip leaves are similar but turnips show more definite notching of the margins and are not curly. The midrib of mustard is broader at the bottom and tapers towards the top while turnip leaves have a midrib that is more uniform from bottom to top. Texture is lighter than collards and the midrib is light green and not as fleshy as Swiss chard.
- Seeds are similar to cabbage but smaller.



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Okra

(Hibiscus esculentus)

- Okra grows 2 to 7 feet tall and has green or red stems, depending on the cultivar.
- Fruit or pods are pointed at the blossom end, white to dark green, ribbed or smooth, spiny or spineless.
- Leaves are broad, notched and fuzzy. The large, light-yellow flowers, similar to hibiscus blooms, have a violet center.
- Seeds are almost round and dark gray in color with a seed stem scar.



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Onion

(Allium cepa)

- Onions grow as single plants or in bunches.
- Leaves are slender, dark green and the tuber becomes red, white, yellow or purple and thickened or bulbous. Bases have a thin papery covering. The base varies from pencil size to round, oblong, top-shaped or flat. Fibrous roots extend from the bottom.
- Seeds are small and black resembling tiny chips of coal.



Parsley

(Petroselinum crispum)

- Parsley is a low growing herb with dark green, flat or curly foliage that has a soft, delicate texture. Parsley plants grow in rounded clumps 1–3 feet tall.
- Leaves, which arise from a central crown, are borne on very slender, green stems.
- Seeds are similar to carrot.



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Steve Hurst @ USDA-NRCS PLANTS Database

Parsnip

(Pastinaca sativa)

- The edible portion is a long, smooth, tapering, yellowish-white, carrot-shaped root.
- The foliage is deep green, with *pinnately compound* leaves similar in size and shape to flat-leaf parsley. The *margins* of the *leaflets* are coarsely toothed.
- The flower is a yellow *umbel*.
- Seeds are round, flat, papery thin and brown to tan in color.



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Peas, English

(Pisum sativum)

- English pea plants are vining with roundish green leaves that clasp to stems at nodes. Curling tendrils occur at tips of branches.
- Pod stems arise at leaf nodes producing 1 or 2 pods each. Pods are plump with 5-10 round green edible seeds per pod, or flat with tiny undeveloped seeds.
- The flower of the pea plant has 5 petals and looks similar to other flowers in the pea or legume family.



Peas, Southern

(*Vigna unguiculata*)

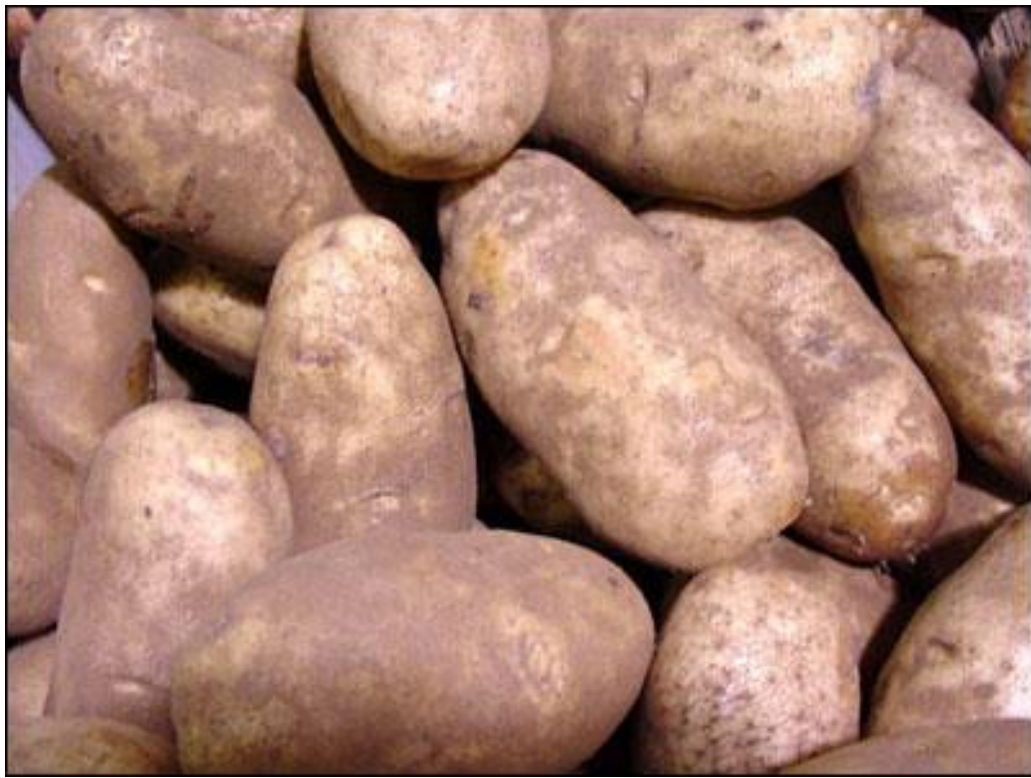
- Plants are bean-like, sometimes bush and often vining, or semi-vining.
- Green leaves are trifoliate, round and pointed, and glossy-smooth.
- Pods are long, slender, pointed, and variously colored from yellow to green, purple, and black.
- Seeds are plump, not as flat as beans, and are many-colored. Seed coat is white to tan with a dark spot, called the "eye" ranging from black to green, pink and purple.
- Common names include black-eyed pea, Crowder pea, and cowpea.



Pepper

(*Capsicum annuum*)

- The plants are much branched with glossy green (sometimes purple) leaves that are pointed.
- Fruits are hollow pods with many white, flat, roundish seeds attached to the central core. There is much variation in size, shape (from long, thin to large, roundish), color (green, red, yellow) and taste (from mild to hot).
- Flowers are small (½-inch diameter) pale yellow to white, star shaped with the corolla tightly held by a green calyx.



Potato, Irish

(Solanum tuberosum)

- The leaves are compound, soft green in color with a slightly rough texture.
- Edible tubers are oblong to round in shape, red, green or brownish in color and smooth skinned with slight indentions (eyes).
- Small (½-inch diameter) flowers range from white to purple.



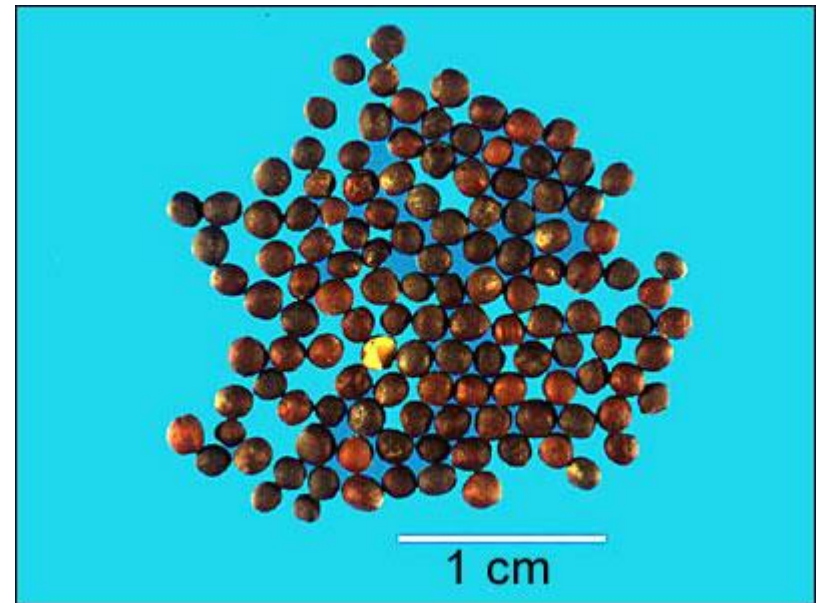
Radish

(Raphanus sativus)

- Radish is grown for its crisp, peppery-tasting root.
- The roots are typically red and round but may be elongated and pink, white or black in color.
- A rosette of fuzzy, green leaves on slender stems grows from the top of each root.
- The seeds are off-round, rose-colored, very hard, about the size of a match head. Some of the large winter radishes may reach 20 pounds or more.
- The flower is pink to light purple.



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Texas A&M (1961. The Yearbook of Agriculture. U.S. Government Printing Office.)

Rutabaga

(*Brassica napus*, Napobrassica group)

- The edible roots are smooth, and sometimes lumpy and irregular. Larger, rounder, and firmer than turnips, they are slightly oblong and white or pale yellow with or without purple at the top.
- The leaves are collard-like but more divided at the base. They are smooth and waxy, unlike turnips that have fuzzy leaves.
- Seeds are similar to cabbage.



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Sage

(Salvia officinalis)

- Sage is a medium-sized, 2-foot-tall hardy perennial herb. The 2 to 3-inch long leaves are thick, opposite, oblong, and pointed.
- The stems are semi-woody and square. Color varies by cultivar, from grayish green, to variegated green and yellow, or green with purple and white.
- Spikes of purple flowers are produced on mature plants.



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Spinach

(Spinacia oleracea)

- The plants are compact, upright to slightly spreading with tender dark green leaves forming a rosette.
- The edible leaves are glossy, may be smooth or crumpled, are oval or spade-shaped and are usually pointed.
- Leaves are eaten raw or cooked.
- Seeds are straw colored and similar in size to radish seed. Seed shape varies from round, smooth to prickly, pointed.



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Squash, Butternut

(Cucurbita moschata)

- Vining plant that is typically grown on the ground.
- Fruits are very firm with a tough outer skin making them suitable for storage. The beige-yellow fruits average 1-3 pounds and have a hollow seed cavity. Fruits are usually bell-shaped, but sometimes blocky-round.
- Leaves are pubescent and comprised of 3-5 lobes. Stem is ridged or angular. Tan seeds are flat with indistinct edges.
- Flower is star-shaped and yellow.



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Squash, Zucchini

(Cucurbita pepo)

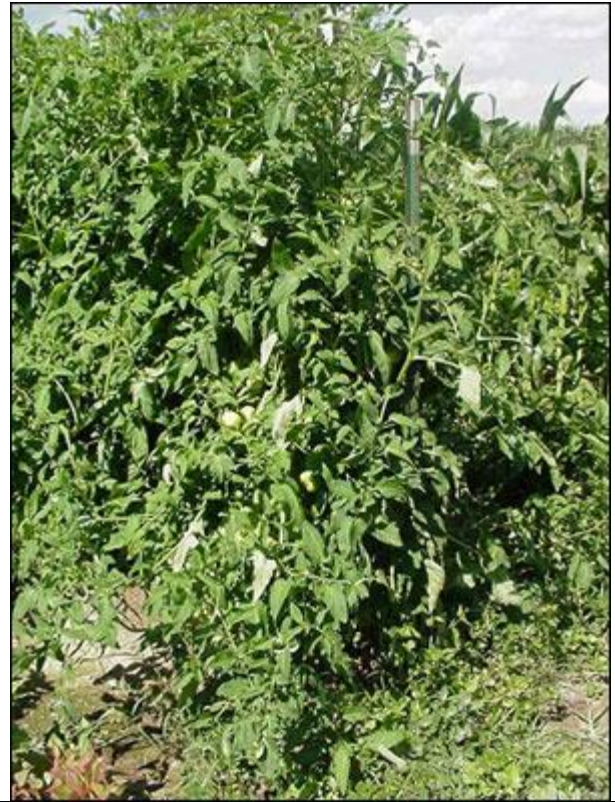
- Fruits are thin-skinned with solid, crisp succulent interiors. There is no seed cavity (unlike cucumbers). Fruits are elongated, somewhat larger at the blossom-end, and range in color from dark green to bright yellow. Some are striped while others are solid color. The skin is ridged and dry, while cucumber skin is waxy and often bumpy.
- The large, yellow flower blossoms are either male or female. While zucchini grows as a bush, the stems may appear vine-like at times.
- Leaves are large, deeply notched, and show a mottling of silvery, light green on a darker green background.
- The seed is white and flat.



Sweet Corn

(Zea mays var. saccharata)

- The plant is upright, often growing to a height of 8 feet or more. The 1-2 inch diameter stem has several internodes which are nearly smooth in the upper part, but somewhat grooved lower on the plant.
- Leaves, called "blades," are alternate, long, sharp-edged, pointed and covered with hairs on top. The central stalk is hollow. Ear shoots develop at the base of internodes.
- The ear (female flower) is wrapped with leaves (husk) and contains a slender "cob" covered with rows of kernels (seeds), each attached to a threadlike "silk." The male flowers are in the tassel at the top of the stalk.
- The seed kernel is plump and smooth when fresh, but may be hard and wrinkled when dried. Seed color varies from white and yellow to hues of red.



Tomato

(Lycopersicon esculentum)

- Tomato plants are either bushy or vining. Leaves are compound, deeply divided, green and soft-textured. When rubbed they have a distinctive smell, somewhat reminiscent of the tomato fruit.
- The stems are somewhat weak and often require staking or support. Both the stems and the leaves are slightly rough and fuzzy.
- Fruits vary in shape (round, pear, oblong); in color (red, pink, yellow, green, white); and in size (cherry size to 1 pound or more).
- The seed is small, fuzzy, tan in color and resembles eggplant and pepper seed. Flowers are borne in clusters, small (½-inch diameter or less), with a yellow open corolla attached to a green calyx.



Turnip

(Brassica rapa)

- Both tops and roots are edible.
- Leaves are green and fuzzy, and attached to slender succulent stems that often show purple coloration. Mustard and turnip leaves are similar but turnips show more definite notching of the margins and are not curly. The midrib of mustard is broader at the bottom and tapers towards the top while turnip leaves have a midrib that is more uniform from bottom to top.
- Roots are roundish or flat and all white or white with a purple top. The roots are similar to rutabaga but are smaller, rounder, and consistently white in color. The flesh is smooth, crisp and white.
- Seeds are cabbage-like.



Watermelon

(Citrullus lunatus)

- The plants are vines with deeply notched leaves, prominent veins, deep lobes and many tendrils.
- Fruits range in shape from oblong to round and vary greatly in size. Exterior color is light to dark green and may be striped or solid. Interior is white when immature, turning red, pink or yellow at maturity.
- Seeds are oval, flat and smooth varying in color from creamy white to speckled to black.
- Flowers are yellow with five petals and are either male or female.

- You can now test yourself with a quiz
- Go to [Quiz: Test your Florida ornamentals knowledge](http://gardeningsolutions.ifas.ufl.edu/mastergardener/outreach/plant_id/quiz/orn_quiz.html)
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