

# EDIBLE PLANTS



## Acacia

*Acacia farnesiana*

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**Description:** Acacia is a spreading, usually short tree with spines and alternate compound leaves. Its individual leaflets are small. Its flowers are ball-shaped, bright yellow, and very fragrant. Its bark is a whitish-gray color. Its fruits are dark brown and podlike.

**Habitat and Distribution:** Acacia grows in open, sunny areas. It is found throughout all tropical regions.

*Note: There are about 500 species of acacia. These plants are especially prevalent in Africa, southern Asia, and Australia, but many species are found in the warmer and drier parts of America.*

**Edible Parts:** Its young leaves, flowers, and pods are edible raw or cooked.





**Agave**  
*Agave species*

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**Description:** These plants have large clusters of thick, fleshy leaves borne close to the ground and surrounding a central stalk. The plants flower only once, then die. They produce a massive flower stalk.

**Habitat and Distribution:** Agaves prefer dry, open areas. They are found throughout Central America, the Caribbean, and parts of the western deserts of the United States and Mexico.

**Edible Parts:** Its flowers and flower buds are edible. Boil them before eating.

**CAUTION**

The juice of some species causes dermatitis in some individuals.

**Other Uses:** Cut the huge flower stalk and collect the juice for drinking. Some species have very fibrous leaves. Pound the leaves and remove the fibers for weaving and making ropes. Most species have thick, sharp needles at the tips of the leaves. Use them for sewing or making hacks. The sap of some species contains a chemical that makes the sap suitable for use as a soap.



**Amaranth**  
*Amaranthus species*

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**Description:** These plants, which grow 90 centimeters to 150 centimeters tall, are abundant weeds in many parts of the world. All amaranth have alternate simple leaves. They may have some red color present on the stems. They bear minute, greenish flowers in dense clusters at the top of the plants. Their seeds may be brown or black in weedy species and light-colored in domestic species.

**Habitat and Distribution:** Look for amaranth along roadsides, in disturbed waste areas, or as weeds in crops throughout the world. Some amaranth species have been grown as a grain crop and a garden vegetable in various parts of the world, especially in South America.

**Edible Parts:** All parts are edible, but some may have sharp spines you should remove before eating. The young plants or the growing tips of alder plants are an excellent vegetable. Simply boil the young plants or eat them raw. Their seeds are very nutritious. Shake the tops of alder plants to get the seeds. Eat the seeds raw, boiled, ground into flour, or popped like popcorn.



### **Arrowroot**

*Maranta* and *Sagittaria* species

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**Description:** The arrowroot is an aquatic plant with arrow-shaped leaves and potato-like tubers in the mud.

**Habitat and Distribution:** Arrowroot is found worldwide in temperate zones and the tropics. It is found in moist to wet habitats.

**Edible Parts:** The rootstock is a rich source of high quality starch. Boil the rootstock and eat it as a vegetable.



## **Bamboo**

Various species including *Bambusa*, *Dendrocalamus*, *Phyllostachys*

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**Description:** Bamboos are woody grasses that grow up to 15 meters tall. The leaves are grasslike and the stems are the familiar bamboo used in furniture and fishing poles.

**Habitat and Distribution:** Look for bamboo in warm, moist regions in open or jungle country, in lowland, or on mountains. Bamboos are native to the Far East (Temperate and Tropical zones) but have been widely planted around the world.

**Edible Parts:** The young shoots of almost all species are edible raw or cooked. Raw shoots have a slightly bitter taste that is removed by boiling. To prepare, remove the tough protective sheath that is coated with tawny or red hairs. The seed grain of the flowering bamboo is also edible. Boil the seeds like rice or pulverize them, mix with water, and make into cakes.

**Other Uses:** Use the mature bamboo to build structures or to make containers, ladles, spoons, and various other cooking utensils. Also use bamboo to make tools and weapons. You can make a strong bow by splitting the bamboo and putting several pieces together.

### **CAUTION**

Green bamboo may explode in a fire. Green bamboo has an internal membrane you must remove before using it as a food or water container.



## Banana and plantain

*Musa* species

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**Description:** These are treelike plants with several large leaves at the top. Their flowers are borne in dense hanging clusters.

**Habitat and Distribution:** Look for bananas and plantains in open fields or margins of forests where they are grown as a crop. They grow in the humid tropics.

**Edible Parts:** Their fruits are edible raw or cooked. They may be boiled or baked. You can boil their flowers and eat them like a vegetable. You can cook and eat the rootstocks and leaf sheaths of many species. The center or "heart" or the plant is edible year-round, cooked or raw.

**Other Uses:** You can use the layers of the lower third of the plants to cover coals to roast food. You can also use their stumps to get water (see [Chapter 6](#)). You can use their leaves to wrap other foods for cooking or storage.



## Batoko plum

*Flacourtia inermis*

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**Description:** This shrub or small tree has dark green, alternate, simple leaves. Its fruits are bright red and contain six or more seeds.

**Habitat and Distribution:** This plant is a native of the Philippines but is widely cultivated for its fruit in other areas. It can be found in clearings and at the edges of the tropical rain forests of Africa and Asia.

**Edible Parts:** Eat the fruit raw or cooked.



## **Bignay**

*Antidesma bunius*

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**Description:** Bignay is a shrub or small tree, 3 to 12 meters tall, with shiny, pointed leaves about 15 centimeters long. Its flowers are small, clustered, and green. It has fleshy, dark red or black fruit and a single seed. The fruit is about 1 centimeter in diameter.

**Habitat and Distribution:** This plant is found in rain forests and semievergreen seasonal forests in the tropics. It is found in open places and in secondary forests. It grows wild from the Himalayas to Ceylon and eastward through Indonesia to northern Australia. However, it may be found anywhere in the tropics in cultivated forms.

**Edible Parts:** The fruit is edible raw. Do not eat any other parts of the tree. In Africa, the roots are toxic. Other parts of the plant may be poisonous.

### **CAUTION**

Eaten in large quantities, the fruit may have a laxative effect.



## **Breadfruit**

*Artocarpus incisa*

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**Description:** This tree may grow up to 9 meters tall. It has dark green, deeply divided leaves that are 75 centimeters long and 30 centimeters wide. Its fruits are large, green, ball-like structures up to 30 centimeters across when mature.

**Habitat and Distribution:** Look for this tree at the margins of forests and homesites in the humid tropics. It is native to the South Pacific region but has been widely planted in the West Indies and parts of Polynesia.

**Edible Parts:** The fruit pulp is edible raw. The fruit can be sliced, dried, and ground into flour for later use. The seeds are edible cooked.

**Other Uses:** The thick sap can serve as glue and caulking material. You can also use it as birdlime (to entrap small birds by smearing the sap on twigs where they usually perch).



## **Burdock** *Arctium lappa*

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**Description:** This plant has wavy-edged, arrow-shaped leaves and flower heads in burrlike clusters. It grows up to 2 meters tall, with purple or pink flowers and a large, fleshy root.

**Habitat and Distribution:** Burdock is found worldwide in the North Temperate Zone. Look for it in open waste areas during the spring and summer.

**Edible Parts:** Peel the tender leaf stalks and eat them raw or cook them like greens. The roots are also edible boiled or baked.

### **CAUTION**

Do not confuse burdock with rhubarb that has poisonous leaves.

**Other Uses:** A liquid made from the roots will help to produce sweating and increase urination. Dry the root, simmer it in water, strain the liquid, and then drink the strained liquid. Use the fiber from the dried stalk to weave cordage.



### **Burl Palm**

*Corypha elata*

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**Description:** This tree may reach 18 meters in height. It has large, fan-shaped leaves up to 3 meters long and split into about 100 narrow segments. It bears flowers in huge dusters at the top of the tree. The tree dies after flowering.

**Habitat and Distribution:** This tree grows in coastal areas of the East Indies.

**Edible Parts:** The trunk contains starch that is edible raw. The very tip of the trunk is also edible raw or cooked. You can get large quantities of liquid by bruising the flowering stalk. The kernels of the nuts are edible.

### **CAUTION**

The seed covering may cause dermatitis in some individuals.

**Other Uses:** You can use the leaves as weaving material.



### **Canna lily**

*Canna indica*

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**Description:** The canna lily is a coarse perennial herb, 90 centimeters to 3 meters tall. The plant grows from a large, thick, underground rootstock that is edible. Its large leaves resemble those of the banana plant but are not so large. The flowers of wild canna lily are usually small, relatively inconspicuous, and brightly colored reds, oranges, or yellows.

**Habitat and Distribution:** As a wild plant, the canna lily is found in all tropical areas, especially in moist places along streams, springs, ditches, and the margins of woods. It may also be found in wet temperate, mountainous regions. It is easy to recognize because it is commonly cultivated in flower gardens in the United States.

**Edible Parts:** The large and much branched rootstocks are full of edible starch. The younger parts may be finely chopped and then boiled or pulverized into a meal. Mix in the young shoots of palm cabbage for flavoring.



**Carob tree**  
*Ceratonia siliqua*

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**Description:** This large tree has a spreading crown. Its leaves are compound and alternate. Its seedpods, also known as Saint John's bread, are up to 45 centimeters long and are filled with round, hard seeds and a thick pulp.

**Habitat and Distribution:** This tree is found throughout the Mediterranean, the Middle East, and parts of North Africa.

**Edible Parts:** The young tender pods are edible raw or boiled. You can pulverize the seeds in mature pods and cook as porridge.



## **Cattail**

*Typha latifolia*

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**Description:** Cattails are grasslike plants with strap-shaped leaves 1 to 5 centimeters wide and growing up to 1.8 meters tall. The male flowers are borne in a dense mass above the female flowers. These last only a short time, leaving the female flowers that develop into the brown cattail. Pollen from the male flowers is often abundant and bright yellow.

**Habitat and Distribution:** Cattails are found throughout most of the world. Look for them in full sun areas at the margins of lakes, streams, canals, rivers, and brackish water.

**Edible Parts:** The young tender shoots are edible raw or cooked. The rhizome is often very tough but is a rich source of starch. Pound the rhizome to remove the starch and use as a flour. The pollen is also an exceptional source of starch. When the cattail is immature and still green, you can boil the female portion and eat it like corn on the cob.

**Other Uses:** The dried leaves are an excellent source of weaving material you can use to make floats and rafts. The cottony seeds make good pillow stuffing and insulation. The fluff makes excellent tinder. Dried cattails are effective insect repellents when burned.



## **Cereus cactus**

*Cereus* species

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**Description:** These cacti are tall and narrow with angled stems and numerous spines.

**Habitat and Distribution:** They may be found in true deserts and other dry, open, sunny areas throughout the Caribbean region, Central America, and the western United States.

**Edible Parts:** The fruits are edible, but some may have a laxative effect.

**Other Uses:** The pulp of the cactus is a good source of water. Break open the stem and scoop out the pulp.



## Chufa

*Cyperus esculentus*

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**Description:** This very common plant has a triangular stem and grasslike leaves. It grows to a height of 20 to 60 centimeters. The mature plant has a soft furlike bloom that extends from a whorl of leaves. Tubers 1 to 2.5 centimeters in diameter grow at the ends of the roots.

**Habitat and Distribution:** Chufa grows in moist sandy areas throughout the world. It is often an abundant weed in cultivated fields.

**Edible Parts:** The tubers are edible raw, boiled, or baked. You can also grind them and use them as a coffee substitute.



## Coconut

*Cocos nucifera*

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**Description:** This tree has a single, narrow, tall trunk with a cluster of very large leaves at the top. Each leaf may be over 6 meters long with over 100 pairs of leaflets.

**Habitat and Distribution:** Coconut palms are found throughout the tropics. They are most abundant near coastal regions.

**Edible Parts:** The nut is a valuable source of food. The milk of the young coconut is rich in sugar and vitamins and is an excellent source of liquid. The nut meat is also nutritious but is rich in oil. To preserve the meat, spread it in the sun until it is completely dry.

**Other Uses:** Use coconut oil to cook and to protect metal objects from corrosion. Also use the oil to treat saltwater sores, sunburn, and dry skin. Use the oil in improvised torches. Use the tree trunk as building material and the leaves as thatch. Hollow out the large stump for use as a food container. The coconut husks are good flotation devices and the husk's fibers are used to weave ropes and other items. Use the gauzelike fibers at the leaf bases as strainers or use them to weave a bug net or to make a pad to use on wounds. The husk makes a good abrasive. Dried husk fiber is an excellent tinder. A smoldering husk helps to repel mosquitoes. Smoke caused by dripping coconut oil in a fire also repels mosquitoes. To render coconut oil, put the coconut meat in the sun, heat it over a slow fire, or boil it in a pot of water. Coconuts washed out to sea are a good source of fresh liquid for the sea survivor.



## Common jujube

*Ziziphus jujuba*

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**Description:** The common jujube is either a deciduous tree growing to a height of 12 meters or a large shrub, depending upon where it grows and how much water is available for growth. Its branches are usually spiny. Its reddish-brown to yellowish-green fruit is oblong to ovoid, 3 centimeters or less in diameter, smooth, and sweet in flavor, but has rather dry pulp around a comparatively large stone. Its flowers are green.

**Habitat and Distribution:** The jujube is found in forested areas of temperate regions and in desert scrub and waste areas worldwide. It is common in many of the tropical and subtropical areas of the Old World. In Africa, it is found mainly bordering the Mediterranean. In Asia, it is

especially common in the drier parts of India and China. The jujube is also found throughout the East Indies. It can be found bordering some desert areas.

**Edible Parts:** The pulp, crushed in water, makes a refreshing beverage. If time permits, you can dry the ripe fruit in the sun like dates. Its fruits are high in vitamins A and C.



### **Cranberry**

*Vaccinium macrocarpon*

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**Description:** This plant has tiny leaves arranged alternately. Its stem creeps along the ground. Its fruits are red berries.

**Habitat and Distribution:** It only grows in open, sunny, wet areas in the colder regions of the Northern Hemisphere.

**Edible Parts:** The berries are very tart when eaten raw. Cook in a small amount of water and add sugar, if available, to make a jelly.

**Other Uses:** Cranberries may act as a diuretic. They are useful for treating urinary tract infections.



## **Dandelion**

*Taraxacum officinale*

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**Description:** Dandelion leaves have a jagged edge, grow close to the ground, and are seldom more than 20 centimeters long. Its flowers are bright yellow. There are several dandelion species.

**Habitat and Distribution:** Dandelions grow in open, sunny locations throughout the Northern Hemisphere.

**Edible Parts:** All parts are edible. Eat the leaves raw or cooked. Boil the roots as a vegetable. Roots roasted and ground are a good coffee substitute. Dandelions are high in vitamins A and C and in calcium.

**Other Uses:** Use the white juice in the flower stems as glue.



## **Date palm**

*Phoenix dactylifera*

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**Description:** The date palm is a tall, unbranched tree with a crown of huge, compound leaves. Its fruit is yellow when ripe.

**Habitat and Distribution:** This tree grows in arid semitropical regions. It is native to North Africa and the Middle East but has been planted in the arid semitropics in other parts of the world.

**Edible Parts:** Its fruit is edible fresh but is very bitter if eaten before it is ripe. You can dry the fruits in the sun and preserve them for a long time.

**Other Uses:** The trunks provide valuable building material in desert regions where few other treelike plants are found. The leaves are durable and you can use them for thatching and as weaving material. The base of the leaves resembles coarse cloth that you can use for scrubbing and cleaning.



## **Daylily**

*Hemerocallis fulva*

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**Description:** This plant has unspotted, tawny blossoms that open for 1 day only. It has long, swordlike, green basal leaves. Its root is a mass of swollen and elongated tubers.

**Habitat and Distribution:** Daylilies are found worldwide in Tropic and Temperate Zones. They are grown as a vegetable in the Orient and as an ornamental plant elsewhere.

**Edible Parts:** The young green leaves are edible raw or cooked. Tubers are also edible raw or cooked. You can eat its flowers raw, but they taste better cooked. You can also fry the flowers for storage.

### **CAUTION**

Eating excessive amounts of raw flowers may cause diarrhea.



## **Fishtail palm**

*Caryota urens*

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**Description:** Fishtail palms are large trees, at least 18 meters tall. Their leaves are unlike those of any other palm; the leaflets are irregular and toothed on the upper margins. All other palms have either fan-shaped or featherlike leaves. Its massive flowering shoot is borne at the top of the tree and hangs downward.

**Habitat and Distribution:** The fishtail palm is native to the tropics of India, Assam, and Burma. Several related species also exist in Southeast Asia and the Philippines. These palms are found in open hill country and jungle areas.

**Edible Parts:** The chief food in this palm is the starch stored in large quantities in its trunk. The juice from the fishtail palm is very nourishing and you have to drink it shortly after getting it from the palm flower shoot. Boil the juice down to get a rich sugar syrup. Use the same method as for the sugar palm to get the juice. The palm cabbage may be eaten raw or cooked.



### **Goa bean**

*Psophocarpus tetragonolobus*

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**Description:** The goa bean is a climbing plant that may cover small shrubs and trees. Its bean pods are 22 centimeters long, its leaves 15 centimeters long, and its flowers are bright blue. The mature pods are 4-angled, with jagged wings on the pods.

**Habitat and Distribution:** This plant grows in tropical Africa, Asia, the East Indies, the Philippines, and Taiwan. This member of the bean (legume) family serves to illustrate a kind of edible bean common in the tropics of the Old World. Wild edible beans of this sort are most frequently found in clearings and around abandoned garden sites. They are more rare in forested areas.

**Edible Parts:** You can eat the young pods like string beans. The mature seeds are a valuable source of protein after parching or roasting them over hot coals. You can germinate the seeds (as you can many kinds of beans) in damp moss and eat the resultant sprouts. The thickened roots are edible raw. They are slightly sweet, with the firmness of an apple. You can also eat the young leaves as a vegetable, raw or steamed.





## **Lotus**

*Nelumbo* species

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**Description:** There are two species of lotus: one has yellow flowers and the other pink flowers. The flowers are large and showy. The leaves, which may float on or rise above the surface of the water, often reach 1.5 meters in radius. The fruit has a distinctive flattened shape and contains up to 20 hard seeds.

**Habitat and Distribution:** The yellow-flowered lotus is native to North America. The pink-flowered species, which is widespread in the Orient, is planted in many other areas of the world. Lotus are found in quiet fresh water.

**Edible Parts:** All parts of the plant are edible raw or cooked. The underwater parts contain large quantities of starch. Dig the fleshy portions from the mud and bake or boil them. Boil the young leaves and eat them as a vegetable. The seeds have a pleasant flavor and are nutritious. Eat them raw, or parch and grind them into flour.



## **Malanga**

*Xanthosoma caracu*

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**Description:** This plant has soft, arrow-shaped leaves, up to 60 centimeters long. The leaves have no aboveground stems.

**Habitat and Distribution:** This plant grows widely in the Caribbean region. Look for it in open, sunny fields.

**Edible Parts:** The tubers are rich in starch. Cook them before eating to destroy a poison contained in all parts of the plant.

### WARNING

**Always cook before eating.**



### Mango

*Mangifera indica*

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**Description:** This tree may reach 30 meters in height. It has alternate, simple, shiny, dark green leaves. Its flowers are small and inconspicuous. Its fruits have a large single seed. There are many cultivated varieties of mango. Some have red flesh, others yellow or orange, often with many fibers and a kerosene taste.

**Habitat and Distribution:** This tree grows in warm, moist regions. It is native to northern India, Burma, and western Malaysia. It is now grown throughout the tropics.

**Edible Parts:** The fruits are a nutritious food source. The unripe fruit can be peeled and its flesh eaten by shredding it and eating it like a salad. The ripe fruit can be peeled and eaten raw. Roasted seed kernels are edible.

### CAUTION

If you are sensitive to poison ivy, avoid eating mangoes, as they cause a severe reaction in sensitive individuals.



## **Manioc**

*Manihot utilissima*

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**Description:** Manioc is a perennial shrubby plant, 1 to 3 meters tall, with jointed stems and deep green, fingerlike leaves. It has large, fleshy rootstocks.

**Habitat and Distribution:** Manioc is widespread in all tropical climates, particularly in moist areas. Although cultivated extensively, it may be found in abandoned gardens and growing wild in many areas.

**Edible Parts:** The rootstocks are full of starch and high in food value. Two kinds of manioc are known: bitter and sweet. Both are edible. The bitter type contains poisonous hydrocyanic acid. To prepare manioc, first grind the fresh manioc root into a pulp, then cook it for at least 1 hour to remove the bitter poison from the roots. Then flatten the pulp into cakes and bake as bread. Manioc cakes or flour will keep almost indefinitely if protected against insects and dampness. Wrap them in banana leaves for protection.

### **CAUTION**

For safety, always cook the roots of either type.



## Mulberry

*Morus* species

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**Description:** This tree has alternate, simple, often lobed leaves with rough surfaces. Its fruits are blue or black and many seeded.

**Habitat and Distribution:** Mulberry trees are found in forests, along roadsides, and in abandoned fields in Temperate and Tropical Zones of North America, South America, Europe, Asia, and Africa.

**Edible Parts:** The fruit is edible raw or cooked. It can be dried for eating later.

### CAUTION

When eaten in quantity, mulberry fruit acts as a laxative. Green, unripe fruit can be hallucinogenic and cause extreme nausea and cramps.

**Other Uses:** You can shred the inner bark of the tree and use it to make twine or cord.



## **Nipa palm**

*Nipa fruticans*

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**Description:** This palm has a short, mainly underground trunk and very large, erect leaves up to 6 meters tall. The leaves are divided into leaflets. A flowering head forms on a short erect stem that rises among the palm leaves. The fruiting (seed) head is dark brown and may be 30 centimeters in diameter.

**Habitat and Distribution:** This palm is common on muddy shores in coastal regions throughout eastern Asia.

**Edible Parts:** The young flower stalk and the seeds provide a good source of water and food. Cut the flower stalk and collect the juice. The juice is rich in sugar. The seeds are hard but edible.

**Other Uses:** The leaves are excellent as thatch and coarse weaving material.



## **Papaya or pawpaw**

*Carica papaya*

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**Description:** The papaya is a small tree 1.8 to 6 meters tall, with a soft, hollow trunk. When cut, the entire plant exudes a milky juice. The trunk is rough and the leaves are crowded at the trunk's apex. The fruit grows directly from the trunk, among and below the leaves. The fruit is green before ripening. When ripe, it turns yellow or remains greenish with a squashlike appearance.

**Habitat and Distribution:** Papaya is found in rain forests and semievergreen seasonal forests in tropical regions and in some temperate regions as well. Look for it in moist areas near clearings and former habitations. It is also found in open, sunny places in uninhabited jungle areas.

**Edible Parts:** The ripe fruit is high in vitamin C. Eat it raw or cook it like squash. Place green fruit in the sun to make it ripen quickly. Cook the young papaya leaves, flowers, and stems carefully, changing the water as for taro.

## CAUTION

Be careful not to get the milky sap from the unripe fruit into your eyes. It will cause intense pain and temporary--sometimes even permanent--blindness.

Other Uses: Use the milky juice of the unripe fruit to tenderize tough meat. Rub the juice on the meat.



### Pine

*Pinus* species

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**Description:** Pine trees are easily recognized by their needlelike leaves grouped in bundles. Each bundle may contain one to five needles, the number varying among species. The tree's odor and sticky sap provide a simple way to distinguish pines from similar looking trees with needlelike leaves.

**Habitat and Distribution:** Pines prefer open, sunny areas. They are found throughout North America, Central America, much of the Caribbean region, North Africa, the Middle East, Europe, and some places in Asia.

**Edible Parts:** The seeds of all species are edible. You can collect the young male cones, which grow only in the spring, as a survival food. Boil or bake the young cones. The bark of young twigs is edible. Peel off the bark of thin twigs. You can chew the juicy inner bark; it is rich in sugar and vitamins. Eat the seeds raw or cooked. Green pine needle tea is high in vitamin C.

**Other Uses :** Use the resin to waterproof articles. Also use it as glue. Collect the resin from the tree. If there is not enough resin on the tree, cut a notch in the bark so more sap will seep out. Put the resin in a container and heat it. The hot resin is your glue. Use it as is or add a small amount of ash dust to strengthen it. Use it immediately. You can use hardened pine resin as an emergency dental filling.



### **Plantain, broad and narrow leaf**

*Plantago* species

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**Description:** The broad leaf plantain has leaves over 2.5 centimeters across that grow close to the ground. The flowers are on a spike that rises from the middle of the cluster of leaves. The narrow leaf plantain has leaves up to 12 centimeters long and 2.5 centimeters wide, covered with hairs. The leaves form a rosette. The flowers are small and inconspicuous.

**Habitat and Distribution:** Look for these plants in lawns and along roads in the North Temperate Zone. This plant is a common weed throughout much of the world.

**Edible Parts:** The young tender leaves are edible raw. Older leaves should be cooked. Seeds are edible raw or roasted.

**Other Uses:** To relieve pain from wounds and sores, wash and soak the entire plant for a short time and apply it to the injured area. To treat diarrhea, drink tea made from 28 grams (1 ounce) of the plant leaves boiled in 0.5 liter of water. The seeds and seed husks act as laxatives.



### **Rattan palm**

*Calamus* species

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**Description:** The rattan palm is a stout, robust climber. It has hooks on the midrib of its leaves that it uses to remain attached to trees on which it grows. Sometimes, mature stems grow to 90 meters. It has alternate, compound leaves and a whitish flower.

**Habitat and Distribution:** The rattan palm is found from tropical Africa through Asia to the East Indies and Australia. It grows mainly in rain forests.

**Edible Parts:** Rattan palms hold a considerable amount of starch in their young stem tips. You can eat them roasted or raw. In other kinds, a gelatinous pulp, either sweet or sour, surrounds the seeds. You can suck out this pulp. The palm heart is also edible raw or cooked.

**Other Uses:** You can obtain large amounts of potable water by cutting the ends of the long stems (see [Chapter 6](#)). The stems can be used to make baskets and fish traps.



## Reed

*Phragmites australis*

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**Description:** This tall, coarse grass grows to 3.5 meters tall and has gray-green leaves about 4 centimeters wide. It has large masses of brown flower branches in early summer. These rarely produce grain and become fluffy, gray masses late in the season.

**Habitat and Distribution:** Look for reed in any open, wet area, especially one that has been disturbed through dredging. Reed is found throughout the temperate regions of both the Northern and Southern Hemispheres.

**Edible Parts:** All parts of the plant are edible raw or cooked in any season. Harvest the stems as they emerge from the soil and boil them. You can also harvest them just before they produce flowers, then dry and beat them into flour. You can also dig up and boil the underground stems, but they are often tough. Seeds are edible raw or boiled, but they are rarely found.





### **Rose apple**

*Eugenia jambos*

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**Description:** This tree grows 3 to 9 meters high. It has opposite, simple, dark green, shiny leaves. When fresh, it has fluffy, yellowish-green flowers and red to purple egg-shaped fruit.

**Habitat and Distribution:** This tree is widely planted in all of the tropics. It can also be found in a semiwild state in thickets, waste places, and secondary forests.

**Edible Parts:** The entire fruit is edible raw or cooked.



### **Sago palm**

*Metroxylon sagu*

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**Description:** These palms are low trees, rarely over 9 meters tall, with a stout, spiny trunk. The outer rind is about 5 centimeters thick and hard as bamboo. The rind encloses a spongy inner pith containing a high proportion of starch. It has typical palmlike leaves clustered at the tip.

**Habitat and Distribution:** Sago palm is found in tropical rain forests. It flourishes in damp lowlands in the Malay Peninsula, New Guinea, Indonesia, the Philippines, and adjacent islands. It is found mainly in swamps and along streams, lakes, and rivers.

**Edible Parts:** These palms, when available, are of great use to the survivor. One trunk, cut just before it flowers, will yield enough sago to feed a person for 1 year. Obtain sago starch from nonflowering palms. To extract the edible sago, cut away the bark lengthwise from one half of the trunk, and pound the soft, whitish inner part (pith) as fine as possible. Knead the pith in water and strain it through a coarse cloth into a container. The fine, white sago will settle in the container. Once the sago settles, it is ready for use. Squeeze off the excess water and let it dry. Cook it as pancakes or oatmeal. Two kilograms of sago is the nutritional equivalent of 1.5 kilograms of rice. The upper part of the trunk's core does not yield sago, but you can roast it in lumps over a fire. You can also eat the young sago nuts and the growing shoots or palm cabbage.

**Other Uses:** Use the stems of tall sorghums as thatching materials.



### **Screw pine** *Pandanus species*

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**Description:** The screw pine is a strange plant on stilts, or prop roots, that support the plant above-ground so that it appears more or less suspended in midair. These plants are either shrubby or treelike, 3 to 9 meters tall, with stiff leaves having sawlike edges. The fruits are large, roughened balls resembling pineapples, but without the tuft of leaves at the end.

**Habitat and Distribution:** The screw pine is a tropical plant that grows in rain forests and semievergreen seasonal forests. It is found mainly along seashores, although certain kinds occur inland for some distance, from Madagascar to southern Asia and the islands of the southwestern Pacific. There are about 180 types.

**Edible Parts:** Knock the ripe fruit to the ground to separate the fruit segments from the hard outer covering. Chew the inner fleshy part. Cook fruit that is not fully ripe in an earth oven. Before cooking, wrap the whole fruit in banana leaves, breadfruit leaves, or any other suitable thick, leathery leaves. After cooking for about 2 hours, you can chew fruit segments like ripe fruit. Green fruit is inedible.



## **Sterculia**

*Sterculia foetida*

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**Description:** Sterculias are tall trees, rising in some instances to 30 meters. Their leaves are either undivided or palmately lobed. Their flowers are red or purple. The fruit of all sterculias is similar in aspect, with a red, segmented seedpod containing many edible black seeds.

**Habitat and Distribution:** There are over 100 species of sterculias distributed through all warm or tropical climates. They are mainly forest trees.

**Edible Parts:** The large, red pods produce a number of edible seeds. The seeds of all sterculias are edible and have a pleasant taste similar to cocoa. You can eat them like nuts, either raw or roasted.

### **CAUTION**

Avoid eating large quantities. The seeds may have a laxative effect.



## **Sugarcane**

*Saccharum officinarum*

**Description:** This plant grows up to 4.5 meters tall. It is a grass and has grasslike leaves. Its green or reddish stems are swollen where the leaves grow. Cultivated sugarcane seldom flowers.

**Habitat and Distribution:** Look for sugarcane in fields. It grows only in the tropics (throughout the world). Because it is a crop, it is often found in large numbers.

**Edible Parts:** The stem is an excellent source of sugar and is very nutritious. Peel the outer portion off with your teeth and eat the sugarcane raw. You can also squeeze juice out of the sugarcane.



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**Sugar palm**  
*Arenga pinnata*

**Description:** This tree grows about 15 meters high and has huge leaves up to 6 meters long. Needlelike structures stick out of the bases of the leaves. Flowers grow below the leaves and form large conspicuous dusters from which the fruits grow.

**Habitat and Distribution:** This palm is native to the East Indies but has been planted in many parts off the tropics. It can be found at the margins of forests.

**Edible Parts:** The chief use of this palm is for sugar. However, its seeds and the tip of its stems are a survival food. Bruise a young flower stalk with a stone or similar object and collect the juice as it comes out. It is an excellent source of sugar. Boil the seeds. Use the tip of the stems as a vegetable.

**CAUTION**

The flesh covering the seeds may cause dermatitis.

**Other Uses:** The shaggy material at the base of the leaves makes an excellent rope as it is strong and resists decay.



### **Sweetsop**

*Annona squamosa*

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**Description:** This tree is small, seldom more than 6 meters tall, and multi-branched. It has alternate, simple, elongate, dark green leaves. Its fruit is green when ripe, round in shape, and covered with protruding bumps on its surface. The fruit's flesh is white and creamy.

**Habitat and Distribution:** Look for sweetsop at margins of fields, near villages, and around homesites in tropical regions.

**Edible Parts:** The fruit flesh is edible raw.

**Other Uses:** You can use the finely ground seeds as an insecticide.

### **CAUTION**

The ground seeds are extremely dangerous to the eyes.



### **Tamarind**

*Tamarindus indica*

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**Description:** The tamarind is a large, densely branched tree, up to 25 meters tall. It has pinnate leaves (divided like a feather) with 10 to 15 pairs of leaflets.

**Habitat and Distribution:** The tamarind grows in the drier parts of Africa, Asia, and the Philippines. Although it is thought to be a native of Africa, it has been cultivated in India for so long that it looks like a native tree. It is also found in the American tropics, the West Indies, Central America, and tropical South America.

**Edible Parts:** The pulp surrounding the seeds is rich in vitamin C and is an important survival food. You can make a pleasantly acid drink by mixing the pulp with water and sugar or honey and letting the mixture mature for several days. Suck the pulp to relieve thirst. Cook the young, unripe fruits or seedpods with meat. Use the young leaves in soup. You must cook the seeds. Roast them above a fire or in ashes. Another way is to remove the seed coat and soak the seeds in salted water and grated coconut for 24 hours, then cook them. You can peel the tamarind bark and chew it.



**Taro, cocoyam, elephant ears, eddo, dasheen**  
*Colocasia and Alocasia species*

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**Description:** All plants in these groups have large leaves, sometimes up to 1.8 meters tall, that grow from a very short stem. The rootstock is thick and fleshy and filled with starch.

**Habitat and Distribution:** These plants grow in the humid tropics. Look for them in fields and near homesites and villages.

**Edible Parts:** All parts of the plant are edible when boiled or roasted. When boiling, change the water once to get rid of any poison.

**CAUTION**

If eaten raw, these plants will cause a serious inflammation of the mouth and throat.



## Ti

*Cordyline terminalis*

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**Description:** The ti has unbranched stems with straplike leaves often clustered at the tip of the stem. The leaves vary in color and may be green or reddish. The flowers grow at the plant's top in large, plumelike clusters. The ti may grow up to 4.5 meters tall.

**Habitat and Distribution:** Look for this plant at the margins of forests or near homesites in tropical areas. It is native to the Far East but is now widely planted in tropical areas worldwide.

**Edible Parts:** The roots and very tender young leaves are good survival food. Boil or bake the short, stout roots found at the base of the plant. They are a valuable source of starch. Boil the very young leaves to eat. You can use the leaves to wrap other food to cook over coals or to steam.

**Other Uses:** Use the leaves to cover shelters or to make a rain cloak. Cut the leaves into liners for shoes; this works especially well if you have a blister. Fashion temporary sandals from the ti leaves. The terminal leaf, if not completely unfurled, can be used as a sterile bandage. Cut the leaves into strips, then braid the strips into rope.



## Tree fern

*Various genera*

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**Description:** Tree ferns are tall trees with long, slender trunks that often have a very rough, barklike covering. Large, lacy leaves uncoil from the top of the trunk.

**Habitat and Distribution:** Tree ferns are found in wet, tropical forests.

**Edible Parts:** The young leaves and the soft inner portion of the trunk are edible. Boil the young leaves and eat as greens. Eat the inner portion of the trunk raw or bake it.



## Tropical almond

*Terminalia catappa*

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**Description:** This tree grows up to 9 meters tall. Its leaves are evergreen, leathery, 45 centimeters long, 15 centimeters wide, and very shiny. It has small, yellowish-green flowers. Its fruit is flat, 10 centimeters long, and not quite as wide. The fruit is green when ripe.

**Habitat and Distribution:** This tree is usually found growing near the ocean. It is a common and often abundant tree in the Caribbean and Central and South America. It is also found in the tropical rain forests of southeastern Asia, northern Australia, and Polynesia.

**Edible Parts:** The seed is a good source of food. Remove the fleshy, green covering and eat the seed raw or cooked.





### **Water chestnut**

*Trapa natans*

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**Description:** The water chestnut is an aquatic plant that roots in the mud and has finely divided leaves that grow underwater. Its floating leaves are much larger and coarsely toothed. The fruits, borne underwater, have four sharp spines on them.

**Habitat and Distribution:** The water chestnut is a freshwater plant only. It is a native of Asia but has spread to many parts of the world in both temperate and tropical areas.

**Edible Parts:** The fruits are edible raw and cooked. The seeds are also a source of food.



### **Water lily**

*Nymphaea odorata*

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**Description:** These plants have large, triangular leaves that float on the water's surface, large, fragrant flowers that are usually white, or red, and thick, fleshy rhizomes that grow in the mud.

**Habitat and Distribution:** Water lilies are found throughout much of the temperate and subtropical regions.

**Edible Parts:** The flowers, seeds, and rhizomes are edible raw or cooked. To prepare rhizomes for eating, peel off the corky rind. Eat raw, or slice thinly, allow to dry, and then grind into flour. Dry, parch, and grind the seeds into flour.

**Other Uses:** Use the liquid resulting from boiling the thickened root in water as a medicine for diarrhea and as a gargle for sore throats.



### **Water plantain**

*Alisma plantago-aquatica*

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**Description:** This plant has small, white flowers and heart-shaped leaves with pointed tips. The leaves are clustered at the base of the plant.

**Habitat and Distribution:** Look for this plant in fresh water and in wet, full sun areas in Temperate and Tropical Zones.

**Edible Parts:** The rootstocks are a good source of starch. Boil or soak them in water to remove the bitter taste.

#### **CAUTION**

To avoid parasites, always cook aquatic plants.



### **Wild crab apple or wild apple**

*Malus* species

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**Description:** Most wild apples look enough like domestic apples that the survivor can easily recognize them. Wild apple varieties are much smaller than cultivated kinds; the largest kinds usually do not exceed 5 to 7.5 centimeters in diameter, and most often less. They have small, alternate, simple leaves and often have thorns. Their flowers are white or pink and their fruits reddish or yellowish.

**Habitat and Distribution:** They are found in the savanna regions of the tropics. In temperate areas, wild apple varieties are found mainly in forested areas. Most frequently, they are found on the edge of woods or in fields. They are found throughout the Northern Hemisphere.

**Edible Parts:** Prepare wild apples for eating in the same manner as cultivated kinds. Eat them fresh, when ripe, or cooked. Should you need to store food, cut the apples into thin slices and dry them. They are a good source of vitamins.

### **CAUTION**

Apple seeds contain cyanide compounds. Do not eat.



## Wild fig

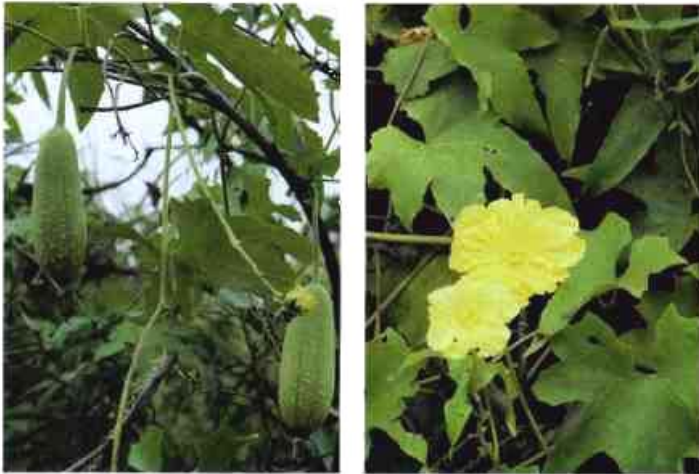
*Ficus species*

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**Description:** These trees have alternate, simple leaves with entire margins. Often, the leaves are dark green and shiny. All figs have a milky, sticky juice. The fruits vary in size depending on the species, but are usually yellow-brown when ripe.

**Habitat and Distribution:** Figs are plants of the tropics and semitropics. They grow in several different habitats, including dense forests, margins of forests, and around human settlements.

**Edible Parts:** The fruits are edible raw or cooked. Some figs have little flavor.



## Wild gourd or luffa sponge

*Luffa cylindrica*

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**Description:** The luffa sponge is widely distributed and fairly typical of a wild squash. There are several dozen kinds of wild squashes in tropical regions. Like most squashes, the luffa is a vine with leaves 7.5 to 20 centimeters across having 3 lobes. Some squashes have leaves twice this size. Luffa fruits are oblong or cylindrical, smooth, and many-seeded. Luffa flowers are bright yellow. The luffa fruit, when mature, is brown and resembles the cucumber.

**Habitat and Distribution:** A member of the squash family, which also includes the watermelon, cantaloupe, and cucumber, the luffa sponge is widely cultivated throughout the Tropical Zone. It may be found in a semiwild state in old clearings and abandoned gardens in rain forests and semievergreen seasonal forests.

**Edible Parts:** You can boil the young green (half-ripe) fruit and eat them as a vegetable. Adding coconut milk will improve the flavor. After ripening, the luffa sponge develops an inedible spongelike texture in the interior of the fruit. You can also eat the tender shoots, flowers, and young leaves after cooking them. Roast the mature seeds a little and eat them like peanuts.



### **Wild rice**

*Zizania aquatica*

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**Description:** Wild rice is a tall grass that averages 1 to 1.5 meters in height, but may reach 4.5 meters. Its grain grows in very loose heads at the top of the plant and is dark brown or blackish when ripe.

**Habitat and Distribution:** Wild rice grows only in very wet areas in tropical and temperate regions.

**Edible Parts:** During the spring and summer, the central portion of the lower stems and root shoots are edible. Remove the tough covering before eating. During the late summer and fall, collect the straw-covered husks. Dry and parch the husks, break them, and remove the rice. Boil or roast the rice and then beat it into flour.



### **Wild rose**

*Rosa species*

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**Description:** This shrub grows 60 centimeters to 2.5 meters high. It has alternate leaves and sharp prickles. Its flowers may be red, pink, or yellow. Its fruit, called rose hip, stays on the shrub year-round.

**Habitat and Distribution:** Look for wild roses in dry fields and open woods throughout the Northern Hemisphere.

**Edible Parts:** The flowers and buds are edible raw or boiled. In an emergency, you can peel and eat the young shoots. You can boil fresh, young leaves in water to make a tea. After the flower petals fall, eat the rose hips; the pulp is highly nutritious and an excellent source of vitamin C. Crush or grind dried rose hips to make flour.

### CAUTION

Eat only the outer portion of the fruit as the seeds of some species are quite prickly and can cause internal distress.



### Yam

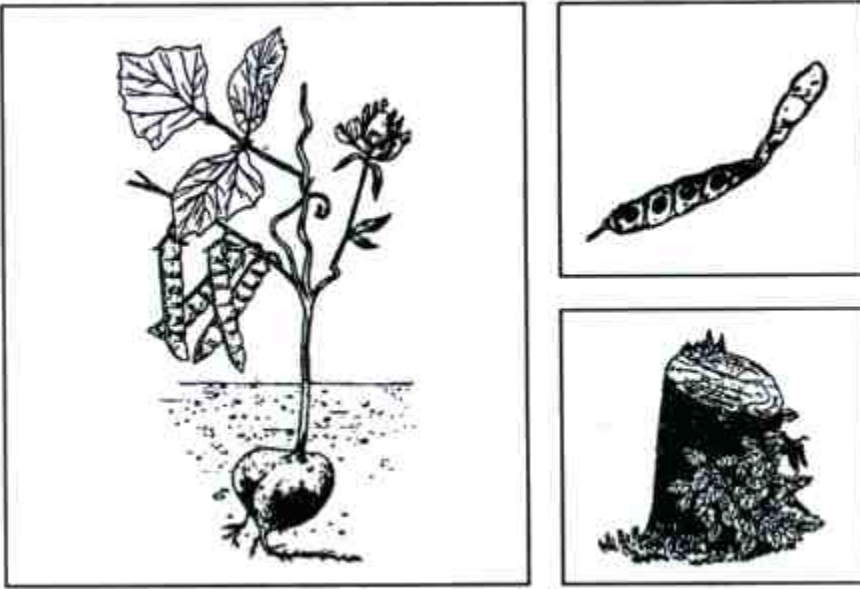
*Dioscorea* species

**Description:** These plants are vines that creep along the ground. They have alternate, heart-or arrow-shaped leaves. Their rootstock may be very large and weigh many kilograms.

**Habitat and Distribution:** True yams are restricted to tropical regions where they are an important food crop. Look for yams in fields, clearings, and abandoned gardens. They are found in rain forests, semievergreen seasonal forests, and scrub and thorn forests in the tropics. In warm temperate areas, they are found in seasonal hardwood or mixed hardwood-coniferous forests, as well as some mountainous areas.

**Edible Parts:** Boil the rootstock and eat it as a vegetable.





### **Yam bean**

*Pachyrhizus erosus*

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**Description:** The yam bean is a climbing plant of the bean family, with alternate, three-parted leaves and a turniplike root. The bluish or purplish flowers are pealike in shape. The plants are often so rampant that they cover the vegetation upon which they are growing.

**Habitat and Distribution:** The yam bean is native to the American tropics, but it was carried by man years ago to Asia and the Pacific islands. Now it is commonly cultivated in these places, and is also found growing wild in forested areas. This plant grows in wet areas of tropical regions.

**Edible Parts:** The tubers are about the size of a turnip and they are crisp, sweet, and juicy and have a nutty flavor. They are nourishing and at the same time quench the thirst. Eat them raw or boiled. To make flour, slice the raw tubers, let them dry in the sun, and grind into a flour that is high in starch and may be used to thicken soup.

#### **CAUTION**

The raw seeds are poisonous.