branch
Offshoot of one of the tree's limbs.

taproot
First root growing out of the seed that grows vertically into the soil; it usually has few offshoots, its main function being to anchor the tree in the ground.

shallow root
Root, often having many offshoots, growing somewhat horizontally into the rich moist topsoil.

radicle
The most slender offshoot of a tree root.

twig
The most slender offshoot of a tree branch.

limb
Offshoot growing directly out of a tree trunk, subsequently dividing into branches and twigs.

bole
Part of the tree trunk extending between the stump and the first lower limbs; it has no offshoots.

trunk
Main part of the tree extending between the soil and the lower branches.
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EDITORIAL POLICY

*The Visual Dictionary* takes an inventory of the physical environment of a person who is part of today's technological age and who knows and uses a large number of specialized terms in a wide variety of fields.

Designed for the general public, it responds to the needs of anyone seeking the precise, correct terms for a wide range of personal or professional reasons: finding an unknown term, checking the meaning of a word, translation, advertising, teaching material, etc.

The target user has guided the choice of contents for *The Visual Dictionary*, which aims to bring together in 12 thematic books the technical terms required to express the contemporary world, in the specialized fields that shape our daily experience.

STRUCTURE

Each tome has three sections: the preliminary pages, including the table of contents; the body of the text (i.e. the detailed treatment of the theme); the index.

Information is presented moving from the most abstract to the most concrete: sub-theme, title, subtitle, illustration, terminology.

TERMINOLOGY

Each word in *The Visual Dictionary* has been carefully selected following examination of high-quality documentation, at the required level of specialization.

There may be cases where different terms are used to name the same item. In such instances, the word most frequently used by the most highly regarded authors has been chosen.

Words are usually referred to in the singular, even if the illustration shows a number of individual examples. The word designates the concept, not the actual illustration.

DEFINITIONS

Within the hierarchical format of *The Visual Dictionary*’s presentation, the definitions fit together like a Russian doll. For example, the information within the definition for the term insect at the top of the page does not have to be repeated for each of the insects illustrated. Instead, the text concentrates on defining the distinguishing characteristics of each insect (the louse is a parasite, the female yellow jacket stings, and so forth).

Since the definition leaves out what is obvious from the illustration, the illustrations and definitions complement one another.

The vast majority of the terms in the *Visual Dictionary* are defined. Terms are not defined when the illustration makes the meaning absolutely clear, or when the illustration suggests the usual meaning of the word (for example, the numerous handles).

METHODS OF CONSULTATION

Users may gain access to the contents of *The Visual Dictionary* in a variety of ways:

- From the TABLE OF CONTENTS at the end of the preliminary pages, the user can locate by title the section that is of interest.
- With the INDEX, the user can consult *The Visual Dictionary* from a word, so as to see what it corresponds to, or to verify accuracy by examining the illustration that depicts it.
- The most original aspect of *The Visual Dictionary* is the fact that the illustrations enable the user to find a word even if he or she only has a vague idea of what it is. The dictionary is unique in this feature, as consultation of any other dictionary requires the user first to know the word.
structure of a fern
Fern leaf, originating at the rhizome, that bears sori and is especially adapted to capture light and perform photosynthesis.

pinna
Segment of the frond’s blade, the underside of which bears sori.

petiole
Slender part of the frond connecting the blade to the rhizome.

sori
Cluster of small spore-producing structures covering the underside of a pinna.

sorus
Cluster of small spore-producing structures covering the underside of a pinna.

fiddlehead
Immature fern frond; its coiled tip is shaped like the head of a fiddle.

rhizome
Stem usually found underground that grows horizontally, occasionally vertically, out of which adventitious fronds and roots grow.

adventitious roots
Roots that grow out of the rhizome, enabling the fern to anchor itself to the soil and absorb water and mineral salts from it.

fern
Flowerless vegetable that grows mainly in the tropics; it also grows in temperate climates in rich damp soil.

blade
Main part of the frond, rich in chlorophyll.

sori
Cluster of small spore-producing structures covering the underside of a pinna.

examples of ferns
There are more than 10,000 species of fern, varying in height from a fraction of an inch to several feet.

common polypody
Fern with fronds up to a foot long; it is usually found in damp overgrown soil, on rocks or tree trunks.

bird’s nest fern
Fern that usually grows out of another plant and not developing a rhizome from it; its fronds grow in a rosette around a central rhizome, hence its name.

large fern
Large fern that resembles a tree and can reach heights up to 6 ft; it grows mainly in the tropics.

tree fern
Large fern that resembles a tree and can reach heights up to 6 ft; it grows mainly in the tropics.

ILLUSTRATION
It is an integral part of the visual definition for each of the terms that refer to it.

NARROW LINES
These link the word to the item indicated. Where too many lines would make reading difficult, they have been replaced by color codes with captions or, in rare cases, by numbers.
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Plant cell

Smallest living structure and the constituent element of all vegetables; it varies in size and shape depending on its function.
**plasmodesma**
Perforations in the membranes allowing two adjacent cells to exchange cytoplasm.

**endoplasmic reticulum**
Interconnecting tubes allowing substances to be transported within the cell or between the cell and its exterior environment.

**starch granule**
Concentric layers of starch produced by the cell and stored for food.

**pore**
Perforations in the nuclear envelope allowing for exchanges between the cytoplasm and the nucleus.

**leucoplast**
Small colorless structure that produces and stores starch, the vegetable's food.

**nucleus**
Organelle containing a cell's genes and controlling its activities.

**nuclear envelope**
A double-layered membrane enveloping the nucleus.

**nucleolus**
Small spherical body located inside the nucleus, within which the ribosomes, or protein-synthesizing structures, are produced.

**plasmodesma**
Perforations in the membranes allowing two adjacent cells to exchange cytoplasm.

**leucoplast**
Small colorless structure that produces and stores starch, the vegetable's food.
lichen

Vegetable formed from the symbiotic association of an alga and a fungus.

structure of a lichen

apothecium
Reproductive organ of the fungus that is a part of the lichen.

thallus
Lichen's main structure formed by the imbrication of fungal filaments and alga cells.
examples of lichens
There are more than 20,000 species of lichen, found growing out of the soil, on tree trunks or on rocks; they grow in all climatic zones.

- **crustose lichen**
  Lichen whose thallus forms a crust that is firmly attached to its substrate.

- **fruticose lichen**
  Lichen whose thallus resembles a small tree; it is attached to its substrate at a single point.

- **foliose lichen**
  Lichen whose thallus resembles leaves or lobes that are loosely attached to their substrate and can be easily removed.
Moss

Flowerless vegetable, usually small in size, that grows in large tightly packed tufts to create a veritable soft carpet.

Structure of a moss

- **Stem**: Main part of the moss from which the leaves spiral outward; it can be upright or flat.
- **Rhizoid**: Rootlike filament enabling the moss to anchor itself to its substrate and absorb water and mineral salts.
- **Leaf**: Part of the moss originating at the stem, especially adapted to capture light, perform photosynthesis and absorb water.
- **Capsule**: Hollow structure that manufactures spores, small seeds used in reproduction; it has a cover that opens to release the mature spores.
- **Stalk**: Long slender axis that supports the capsule, enabling it to absorb nutrients.
examples of mosses
There are more than 13,000 species of moss; they generally grow in damp soil, on rocks or tree trunks and occasionally in fresh water.

prickly sphagnum
Bog moss that has no rhizoid and rarely bears a capsule; it has a high water content and its decomposition helps to form peat.

common hair cap moss
Ground moss with an erect stem and stiff leaves that grows in tufts, mostly in wooded areas; the capsule emerges from the end of a very long stalk.
alga

Flowerless vegetable that usually lives in aquatic environments; it produces oxygen and is at the base of the food chain.

structure of an alga

receptacle
Enlarged part, generally located at the tip of a frond, holding the alga’s reproductive organs.

thallus
Alga’s main structure, with undifferentiated stem and leaves.

aerocyst
Small gas-filled bladder containing nitrogen and oxygen; it is located in the thallus of some algae and provides buoyancy.

midrib
Projection running the length of the thallus or fronds of certain algae.
red alga
Red-pigmented alga that generally lives in salt water and at greater depths than other algae; there are 4,000 species of red algae.

green alga
Alga often found in freshwater, but also in seas and some nonaquatic environments; there are 6,000 species of green algae.

brown alga
Brown-pigmented alga that usually lives in the sea, often in cold water; there are more than 1,500 species of brown alga.

lamina
Part of the thallus that is shaped like a blade; it is quite wide and looks like a leaf.

hapteron
Small, occasionally branched disk, located at the base of certain thalli, enabling their attachment to a substrate.

examples of algae
More than 25,000 species of algae live in aquatic environments or in some regions with damp soil; they vary in size from microscopic to 60 ft in length.
**fern**

Flowerless vegetable that grows mainly in the tropics; it also grows in temperate climates in rich damp soil.

**structure of a fern**

- **frond**: Fern leaf, originating at the rhizome, that bears sori and is especially adapted to capture light and perform photosynthesis.
- **rhizome**: Stem usually found underground that grows horizontally, occasionally vertically, out of which adventitious fronds and roots grow.
- **sorus**: Cluster of small spore-producing structures covering the underside of a pinna.
- **pinna**: Segment of the frond’s blade, the underside of which bears sori.
- **blade**: Main part of the frond, rich in chlorophyll.
- **petiole**: Slender part of the frond connecting the blade to the rhizome.
- **fiddlehead**: Immature fern frond; its coiled tip is shaped like the head of a fiddle.
- **adventitious roots**: Roots that grow out of the rhizome, enabling the fern to anchor itself to the soil and absorb water and mineral salts from it.
There are more than 10,000 species of fern, varying in height from a fraction of an inch to several feet.

**Examples of ferns**

- **Common polypody**: Fern with fronds up to a foot long; it is usually found in damp overgrown soil, on rocks or tree trunks.

- **Bird’s nest fern**: Fern that usually grows out of another plant without deriving nourishment from it; its fronds grow in a rosette around a central rhizome, hence its name.

- **Tree fern**: Large fern that resembles a tree and can reach heights of up to 65 ft; it grows mainly in the tropics.

- **Trunk**: Main part of the fern, composed of a vertical rhizome covered with the stubs of old fronds and, often, with aboveground adventitious roots.
mushroom
Organism that exists parasitically or symbiotically with other living things or grows on dead organic matter.

**structure of a mushroom**
The mushroom is composed of an underground part (mycelium) and an aboveground, often edible part that is also the reproductive organ.

- **cap**
  Differently shaped and colored upper part of the mushroom that protects the gills; it usually resembles a headdress, hence its name.

- **gill**
  Fertile spore-producing part of the mushroom, located under the cap.

- **ring**
  Membrane located under the cap and circling the stem; remnant of a membrane that covered the gills of the immature mushroom and ruptured as the cap grew.

- **stem**
  Axis supporting the mushroom's cap.

- **volva**
  Remnant of a membrane that completely covered the immature mushroom and ruptured as the stem grew.

- **spores**
  Microscopic seeds acting as reproductive agents; they are usually released into the air and fall on a substrate to produce a new mushroom.

- **mycelium**
  Tangle of hyphae created through spore germination, from which the aboveground part of the mushroom develops.

- **hypha**
  Microscopic filament, often white, that draws water and the organic matter necessary for mushroom development.
deadly poisonous mushroom
Mushroom containing a toxin that, following contact or ingestion, produces serious effects on humans, generally resulting in death.

destroying angel
White ground mushroom with an unpleasant smell, growing in wooded areas; the effects of its often-deadly toxin act in a delayed manner, mainly attacking the liver.

poisonous mushroom
Mushroom containing a toxin that, following contact or ingestion, produces a range of usually nonfatal effects on humans.

fly agaric
The cap of this woodland mushroom is covered with white warts; its toxin primarily attacks the nervous system, causing hallucinations, among other symptoms.

edible mushrooms
Mushrooms that can be eaten without danger by human beings.

chanterelle
Pleasantly fragrant and valued by gourmets, especially those in Europe; it is served most often with meat or omelettes.

cultivated mushroom
The most widely cultivated and consumed mushroom; it is eaten raw, in salads or with dips, or cooked, primarily in sauces and on pizza.
The darker the specimen, the more flavorful its thin fragrant flesh; it should be thoroughly cooked to eliminate toxic substances.

Underground mushroom hard to find and perceived as a luxury food; it is usually associated with game and poultry.

Grows on trees or on dead wood; its soft white flesh is a valued ingredient in sauces, where it can substitute for the cultivated mushroom.

The darker the specimen, the more flavorful its thin fragrant flesh; it should be thoroughly cooked to eliminate toxic substances.
**royal agaric**
Equally flavorful raw or cooked, it has been famous since ancient times; it is not to be confused with the poisonous fly agaric, which it resembles.

**green russula**
Its white brittle flesh has an aroma of hazelnut; it can be eaten raw or cooked, preferably grilled.

**enoki mushroom**
Long-stemmed, soft-fleshed resistant mushroom very popular in Asia; it is eaten raw, in salads, or cooked, in soups and Oriental dishes.

**delicious lactarius**
Secretes an orange milk when broken open; it is used primarily in spicy sauces, especially in Spain and the south of France.

**edible boletus**
Squat, it can grow up to 10 in in height and diameter; it is usually cooked in oil, braised or served in an omelette.
**plant**

Vegetable rooted in the soil, the upper part of which grows aboveground or in freshwater; it produces oxygen and is at the bottom of the food chain.

**structure of a plant**

- **terminal bud**
  Bud that grows at the end of the stem, enabling it to grow longer.

- **axillary bud**
  Bud that appears where an older leaf attaches to the stem; a twig will grow out of it.

- **leaf**
  Usually thin and flat part of a vegetable that grows out of the stem and is specially adapted to capturing light and performing photosynthesis.

- **leaf node**
  Point at which a leaf or twig attaches to the stem.

- **stem**
  Main part of the plant, extending from the soil to the terminal bud.

- **primary root**
  Underground extension of the stem resulting from growth of the radicle.

- **secondary root**
  Offshoot growing out of the primary root.

- **radicle**
  Smallest offshoot of a plant's root.

- **internode**
  Part of the stem located between two nodes.

- **collar**
  Point where root and stem meet.

- **flower**
  Often colorful and fragrant part of certain vegetables that holds the reproductive organs; first it produces fruit, then seeds.

- **flower bud**
  Bud that opens and from which a flower grows.

- **twig**
  Offshoot growing out of the plant's stem.

- **root system**
  The aggregate of the roots that anchor a plant to the soil and enable it to absorb water and mineral salts from it.
Soil usually has four main layers; it varies in total thickness from several inches to several feet, depending on the area.

- **Topsoil**: Second layer of soil, dark in color and rich in organic matter; it contains almost all of the soil’s animal and vegetable life.
- **Subsoil**: Third layer of soil to which the roots extend; contains little organic matter but many nutrients leached from the topsoil.
- **Bedrock**: Rock that forms the bottom layer of soil; its physical and chemical breakdown enables the upper layers to develop.

**Plant litter**
Upper layer of soil, composed of recently fallen animal and vegetable scraps or those in the early stages of decomposition.
seed
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

radicle
First root produced by the seed; it quickly breaks through the seed coat and grows downward into the soil.

root hairs
Root cell extensions that ensure the provision of water and mineral salts; they increase the surface area available for absorbing nutrients.

primary root
Root that emerges as the radicle develops; many secondary offshoots rapidly grow out of it.

secondary root
Offshoot growing out of the primary root.

germination
Phenomenon by which, given favorable conditions, a seed will develop and grow into a plant.
**First leaves**
First leaf, formed inside the seed; it provides vital food for the seedling, then withers and falls shortly after germination.

**Terminal bud**
Bud that grows at the end of the stem, enabling it to grow longer.

**Leaf**
Usually thin and flat part of a vegetable that grows out of the stem and is specially adapted to capturing light and performing photosynthesis.

**Cotyledon**
First leaf, formed inside the seed; it provides vital food for the seedling, then withers and falls shortly after germination.
**photosynthesis**

Phenomenon by which the plant, helped by solar energy, obtains its food (glucose) from the air and the soil and releases oxygen into the atmosphere.

- **solar energy**
  
  Energy derived from sunlight and absorbed through the chlorophyll, the green pigment found in plant leaves.

- **leaf**
  
  Part of the plant where photosynthesis takes place; it also helps oxygenate the ambient air and reduce carbon dioxide.

- **stem**
  
  Main part of the plant, extending from the soil to the terminal bud.

- **glucose**
  
  Organic food produced through photosynthesis and used by the plant to ensure growth; it is transported throughout the plant by the sap.

- **absorption of water and mineral salts**
  
  Water and mineral salts are absorbed through the roots and carried up to the leaves by the stem and its offshoots.

- **release of oxygen**
  
  The process of photosynthesis releases oxygen, a gas essential to life.

- **carbon dioxide absorption**
  
  The carbon dioxide in the atmosphere required for photosynthesis is absorbed by the leaf.
Bulb: underground structure of certain plants where nutrients are stored; it ensures seasonal regrowth of the aboveground part of the plant.

**scale leaf**
Bulb’s external casing; it is made of layered papery leaves.

**bud**
Small plantlike structure constituting a collection of immature organs that will develop once it opens.

**fleshy leaf**
Nutrient-rich leaf underneath the scale leaf.

**bulbil**
A secondary bulb that develops from a bud growing out of the side of the main bulb; it can break away and grow into a new plant.

**underground stem**
Main part of the bulb extending from the base to the bud and protected by fleshy leaves.

**base**
Round part located at the bulb’s base from which the stem, roots and fleshy leaves grow.

**root**
Underground structure that anchors the plant to the soil and enables the plant to absorb water and mineral salts.
root
Underground structure that anchors the plant to the soil and enables the plant to absorb water and mineral salts.

primary root
Underground extension of the stem resulting from growth of the radicle.

ramification zone
Part of the root that produces secondary roots.

secondary root
Offshoot growing out of the primary root.

growth zone
Part of the root where the new cells produced by the growing point extend and differentiate into specialized tissues.

root cap
Casing that covers the root tip and protects the root from abrasion as it grows downward into the soil.

root hairs
Root cell extensions that ensure the provision of water and mineral salts; they increase the surface area available for absorbing nutrients.

feeder root zone
Part of the root covered with absorbent hairs. It is always the same length, since the hairs degenerate as others form near the tip.

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PLANTS
**examples of roots**

Roots, which usually grow underground, sometimes show major changes in structure in order to fill varied roles in the plant.

- **buttress roots**
  Large aboveground roots that support the trunk of certain trees growing in shallow soil.

- **underground roots**
  Roots that grow downward in the soil to absorb water and minerals. This is the most common type of root.

- **aerial roots**
  Roots that develop above the ground.

- **claspers**
  Small aerial roots that enable the stem to attach itself to a support.

- **brace roots**
  Aerial roots that support the stem of certain plants.
stem
Main part of the plant, extending from the soil to the terminal bud.

examples of stems
There are several types of roots, aerial and underground, that perform a wide variety of tasks.

rhizome
Underground stem where the plant stores nutritive elements.

tuber
Underground protuberance of the stem containing the plant's nutritive reserves.

stolon
Thin stem that grows horizontally; it may send out roots at the knots, enabling a new plant to develop.
**tendril**
Spiral-shaped excrescence that enables the stem to attach itself to a support.

**succulent stem**
Stem engorged with reserves of water, enabling certain plants to survive during long periods of drought.

**spiny stem**
Stem with hard, pointy protuberances designed to fend off animals.
leaf

Usually thin and flat part of a vegetable that grows out of the stem and is specially adapted to capturing light and performing photosynthesis.

**structure of a leaf**

- **tip**: Apex of the leaf blade, at the opposite end from the part attached to the petiole; this part can vary markedly in shape.
- **margin**: Part that forms the outline of the leaf blade.
- **vein**: Branching of the midrib that carries sap to the various parts of the blade; it also functions as the leaf's skeleton.
- **blade**: Main part of the leaf, rich in chlorophyll; it can vary markedly in shape, depending on the type of rib and size of indentation.
- **midrib**: Hollow projection that extends the petiole into the blade and carries sap; it forms the basis of the leaf's skeleton.
- **petiole**: Narrow part of the leaf connecting the blade to the stem.
- **stipule**: Small outgrowth at the base of the petiole in certain leaves.
- **sheath**: Distension of the petiole, partly or completely surrounding the stem.
- **leaf axil**: Point at which the petiole attaches to the stem node.
compound leaves

Leaves with blades divided into several distinct sections, called folioles, the arrangement of which determines the leaf type.

- **abruptly pinnate**
  Compound feathered leaf ending in two folioles on each side of the main petiole.

- **pinnatifid**
  Compound leaf with folioles on both sides of a common petiole.

- **trifoliolate**
  Leaf having three distinct folioles.

- **odd pinnate**
  Compound feathered leaf with a main petiole ending in a single foliole.

- **palmate**
  Compound leaf with all its folioles attached at the same point, at the apex of the petiole.
simple leaves
Leaves with an undivided blade; there are many types, grouped according to shape.

orbiculate
Simple leaf with a somewhat rounded blade.

spatulate
Simple leaf in which the blade widens, taking the shape of a spatula.

cordate
Simple leaf with a heart-shaped blade.

reniform
Simple leaf with a kidney-shaped blade.
**hastate**
Simple leaf with a spear-shaped blade.

**linear**
Simple leaf with a long and very narrow blade and almost parallel margins.

**peltate**
Simple leaf with a petiole attached perpendicularly to the center of the blade's underside.

**ovate**
Simple leaf with an egg-shaped blade.

**lanceolate**
Simple leaf with a narrow blade that is longer than it is wide, ending in a point.

**linear**
Simple leaf with a long and very narrow blade and almost parallel margins.
leaf margin
Leaf edges vary markedly, depending on the shape and depth of their indentations.

dentate
Leaf edged with pointy teeth of similar size.

doubly dentate
Leaf edged with teeth of different sizes, the main tooth often having smaller teeth.

crenate
Leaf edge with rounded teeth.

ciliate
Leaf edge surrounded by short thin hairs called cilia.

entire
Leaf edge with no indentations.

lobate
Leaf edge indented with deep notches.
palmate leaf
Leaf whose petiole is divided into an odd number of veins, all spreading from a single point.

parallel-veined leaf
Leaf whose blade has veins that run parallel to each other.

pinnate leaf
Leaf whose blade has a principal median vein and secondary veins arranged evenly on each side.

single-veined leaf
Leaf whose blade has only one vein.

leaf venation
Shape of the vein network in the blade of a leaf.
seed
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

endosperm
Tissue responsible for storing nutrients used in development of embryos and plantlets.

seed coat
Protective casing covering the endosperm and the embryo.

cotyledon
First leaf, formed inside the seed; it provides vital food for the seedling, then withers and falls shortly after germination.

radicle
First root produced by the seed; it will become the main root of the plant during germination.

tigelle
Part of the embryo that will form, during germination, a primitive stem between the soil and the cotyledons.

hilium
Scar marking the point of attachment between the seed and the fruit.

embryo
Young plant contained in the seed, formed of a plumule, a tigelle, a radicle, and one or two cotyledons.

plumule
Part of the embryo that will form, during germination, the leafy stem.
PLANTS

aquatic plant

Plant that lives totally or partially submerged in water.

succulent plant

Plant with organs engorged with water that enable it to endure arid conditions; cacti are the best-known examples.

rhizome

Underground stem that stores nutritive elements and anchors the plant to the bottom of the basin.

leaf

Usually thin and flat part of a vegetable that grows out of the stem and is specially adapted to capturing light and performing photosynthesis.

stem

Main part of the plant, storing water and containing chlorophyll, necessary to perform photosynthesis.

spine

Leaf of the succulent plant, whose small size limits water loss.
flower

Often colorful and fragrant part of certain vegetables that holds the reproductive organs; first it produces fruit, then seeds.

structure of a flower

- **stigma**: Upper part of the female floral organ (pistil) that receives and holds pollen.
- **style**: Cylindrical axis connecting the stigma to the ovary.
- **filament**: Cylindrical axis connecting the anther to the rest of the flower.
- **receptacle**: Enlarged portion of the peduncle containing and supporting the other parts of the flower.
- **ovary**: Hollow structure containing one or more ovules; the fruit usually develops from it after fertilization.
- **ovule**: Small rounded structure produced by the ovary and containing the female cell; after fertilization, the seed develops from it.
- **peduncle**: Terminal offshoot of the stem or twig; it first connects the flower, then the fruit, to the plant.
- **sepal**: Usually green part of the flower that protects the flower’s internal structures; it may fall after flowering occurs or remain until the fruit has ripened.
**anther**
Upper part of the male floral organ (stamen) that produces pollen grains; at maturity, it splits to release them.

**petal**
Usually colorful and scented part of the flower that surrounds the male and female reproductive organs; it often helps attract pollinators.

**pistil**
Each of the female floral organs at the flower’s center, consisting of an ovary, a stylus and a stigma.

**corolla**
Part of the flower composed of all its petals.

**stamen**
Each of the male floral organs, consisting of a filament and an anther.

**calyx**
Part of the flower composed of all its sepals.
**examples of flowers**

Flowers: there are more than 250,000 varieties of flowers, prized for their shapes, colors and great range of scents.

- **poppy**
  Bright red wildflower, related to the domestic poppy.

- **carnation**
  Strongly scented flower of various colors; it is sometimes worn as a boutonniere on special occasions.

- **orchid**
  Flower prized for the variety of its delicate shapes and colors; there are more than 15,000 species.

- **tulip**
  Flower whose petals grow in the shape of a rounded vase; there are approximately 100 differently colored species.
**violet**
Small flower with several ornamental varieties; it is also cultivated for perfume production and cooking.

**lily of the valley**
Small strongly scented bell-shaped white flower that grows in clusters.

**begonia**
Decorative flower that is native to South America and prized for its vibrant colors.

**lily**
Large flower of various colors, prized for its beauty; the white lily is the symbol of French royalty and the emblem of Quebec.
**rose**
Flower cultivated for its beauty, scent and range of colors; it is used in floral arrangements.

**crocus**
Small white flower that blooms with the first warm rays of spring sunshine.

**daffodil**
Fairly tall bright yellow flower that blooms in the spring.

**buttercup**
Wildflower with usually bright-yellow petals, widespread in fields and prairies.

**sunflower**
Tall flower whose seeds provide a high-quality cooking oil. The head always turns toward the Sun, hence its name.
**primrose**
Small decorative flower in various colors that blooms early in the spring.

**daisy**
Flower with a yellow center and usually white petals, common in fields and woodlands.

**dandelion**
Very common flower composed of dozens of small, tightly bunched florets.

**thistle**
Wildflower whose receptacle is covered with modified leaves covered with spines.
**types of inflorescences**

Inflorescence: the arrangement of flowers on the stem or twig of a plant.

- **raceme**
  Inflorescence composed of a main axis and laterally borne flowers with pedicels of equal length.

- **spike**
  Inflorescence composed of a main axis and laterally borne flowers with no pedicel.

- **uniparous cyme**
  Inflorescence whose main axis ends in a flower under which a single lateral twig develops; the process is repeated under each terminal flower.

- **biparous cyme**
  Inflorescence whose main axis ends in a flower under which two lateral twigs develop; the process is repeated under each terminal flower.
umbel
Inflorescence composed of a main axis and laterally borne flowers with pedicels of equal length, all originating from the same point.

corymb
Inflorescence composed of a main axis and laterally borne flowers with pedicels of unequal length, all ending at the same height.

capitulum
Inflorescence composed of flowers with no pedicel, all embedded in a flat receptacle.

spadix
Inflorescence composed of flowers with no pedicel, all embedded in an elongated ovoid receptacle.
fruits

Vegetable structures usually resulting from the development of one or several floral ovaries that, once mature, contain seeds; they are often edible.

**stone fleshy fruit**
Fruit whose seed is surrounded by three distinct layers: an exocarp, a fleshy mesocarp and an extremely hard stone, or endocarp.

technical terms

- **peduncle**
  Part of the fruit that once attached it to the terminal offshoot of the twig or branch.

- **exocarp**
  Fruit’s outer layer, covering the mesocarp.

- **mesocarp**
  Plump part of the fruit, usually sweet and juicy.

- **seed coat**
  Protective casing covering the embryo and the nutrients stored in the seed.

- **seed**
  Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

- **endocarp**
  Fruit’s interior layer that surrounds and protects the seed; it is rough and extremely hard.

- **style**
  Visible remnant of the flower’s style, now withered, that once connected the stigma to the ovary.
usual terms

stalk
Part of the fruit that once attached it to the terminal offshoot of the twig or branch.

skin
Fruit's outer layer, covering the flesh.

flesh
Plump part of the fruit, usually sweet and juicy.

kernel
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

stone
Fruit's interior layer that surrounds and protects the seed; it is rough and extremely hard.
apricot
Often eaten dried or candied, its orange flesh can be mushy if picked before fully ripe; the kernel inside the stone contains a toxic substance.

cherry
An essential ingredient in Black Forest cake and, candied, in fruitcake; when artificially colored and flavored, it is used as a cocktail garnish.

plum
Of various colors and sizes, it is excellent either raw or cooked and is used especially to make chutney; the dried plum is called a prune.

nectarine
Differentiated from the peach by its smooth, more colorful skin and by its more flavorful flesh; like the peach, it is eaten raw or used in certain desserts.
date
Has a high sugar content and is often sold dried; in North America, it is primarily associated with baked goods, such as squares, muffins and cakes.

olive
Inedible when raw, the olive is treated to reduce its bitter taste, then cured in brine or sometimes in oil.

longan
Stone fruit, related to the litchi, whose whitish translucent flesh is sweet and juicy; the peeled and stoned fruit is often eaten plain.

mango
Fruit with a flattened stone and a skin that should be discarded, as it irritates the mouth; it is mostly eaten ripe, but sometimes used green, as a vegetable.
**fleshy fruit: citrus fruit**
Fruit composed of several segments, each one enclosing seeds that are in direct contact with the pulp.

**technical terms**

- **wall**
  Thin membrane separating the citrus fruit into segments.

- **seed**
  Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

- **juice sac**
  Each of the small juice-filled pockets that combine to make up the fruit's pulp.

- **mesocarp**
  Designates the whitish part of the rind of a citrus fruit.

- **exocarp**
  Fruit's outer layer, covering the mesocarp.
usual terms

**rind**
Fruit's outer layer covering the pulp, composed of an outer colored part and an inner part made of whitish tissue.

**pulp**
Fleshy portion of the citrus fruit, composed of small juice-filled pockets in every segment.

**pip**
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

**segment**
Part of a citrus fruit surrounded by a thin membrane containing the pulp and seeds; each segment derives from separate ovaries within a single flower.

**zest**
Outer scented layer of the citrus fruit's rind. It produces an essence used in baking and an essential oil.
**kumquat**
Small citrus fruit, .75 to 2 in long with a sweet tender rind that can be eaten unpeeled; its flavor is enhanced through light steeping.

**lime**
Intensely fragrant and used like the lemon; it is an essential ingredient in ceviche, a raw marinated fish dish.

**mandarin**
Similar to a small, slightly flattened orange, it is less acidic than most citrus fruits and is often eaten as is; it peels easily.

**grapefruit**
The pink grapefruit is sweeter and less bitter than the white one that has yellow flesh; it is often cut in half and eaten plain, with a spoon.
**bergamot**
Because its greenish flesh is inedible, it is primarily used for the zest and essential oil derived from its rind, especially in Earl Grey tea.

**lemon**
Highly acidic, it is especially used to flavor various recipes and enhance the flavor of certain foods; it is the main ingredient in lemonade.

**citron**
Extensively grown in Corsica and Israel, this somewhat dry fruit is rarely found fresh and is mostly sold candied.

**pomelo**
Extremely popular in many Asian countries, it has only recently become available in the West; less juicy than the grapefruit, it is mostly cooked or candied.
**fleshy fruit: berry fruit**
Fruit in which the seed is surrounded by two distinct layers: an exocarp and a fleshy mesocarp that is in direct contact with the seed.

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**technical terms**

- **pedicel**: Part of the fruit that once connected it to the cluster’s peduncle.
- **exocarp**: Fruit's outer layer, covering the mesocarp.
- **funiculus**: Slender strand that connects the seed to the grape's pedicel; it is used to transport food to the developing seed.
- **seed**: Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.
- **mesocarp**: Plump part of the fruit, usually sweet and juicy.
- **style**: Visible remnant of the flower's style, now withered, that once connected the stigma to the ovary.
usual terms

stalk
Part of the fruit that once connected it to the cluster's peduncle.

skin
Fruit's outer layer, covering the flesh.

pip
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

flesh
Plump part of the fruit, usually sweet and juicy.
section of a strawberry
The strawberry is a complex fruit, with achenes borne by the fleshy receptacle of the flower.

calyx
All the flower’s sepals, which remain until the strawberry ripens.

achene
Each of the small dry fruits that cover the skin of the strawberry, each one containing a seed.

receptacle
Enlarged portion of the flower’s peduncle; in the strawberry, it becomes fleshy and bears the achenes.

flesh
Pulpy portion of the strawberry, formed as the flower’s receptacle develops.

peduncle
Part of the fruit that once attached it to the terminal offshoot of the twig or branch.

epicalyx
All the small green leaves under the calyx.
**peduncle**
Part of the fruit that once attached it to the terminal offshoot of the twig or branch.

**sepal**
The flower's sepal remains until the raspberry ripens.

**seed**
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

**receptacle**
Enlarged portion of the peduncle; it holds the raspberry's drupelets.

**drupelet**
The small fleshy fruits attached to the receptacle, each one containing a seed; they are derived from separate ovaries within a single flower.

**section of a raspberry**
The raspberry is an aggregate fruit; it consists of a number of small fleshy fruits attached to a common receptacle.
red whortleberry  
Closely related to the cranberry, this small tart berry is somewhat bitter and rarely eaten raw; it is used instead to make sauces, jams and desserts.

blueberry  
Little known outside its native North America, it is primarily eaten plain or in desserts; the lowbush variety is the sweetest.

bilberry  
Although not related to it, this berry of Europe and Asia resembles the blueberry and is used like it.

blackberry  
Grows on canes as does the raspberry, and is used like that fruit; not to be confused with the fruit of the bramble bush, which grows several meters high.

cranberry  
Too tart to be eaten raw, it is primarily used for making desserts, sauces or juice; a traditional accompaniment to turkey in North America.
**arbutus berry**
Fruit from the Mediterranean region, with a granular skin; it is used mainly in the manufacture of jams and jellies.

**black currant**
Black berry primarily used to make coulis, jellies, wine and liqueurs such as crème de cassis, an ingredient in kir.

**currant**
Small red or white currant primarily eaten cooked due to its sour taste; its juice can replace vinegar in salad dressing.

**gooseberry**
Larger than the clustered berries, it is especially popular in Europe; the British use it to make a chutney that is served with mackerel.

**alkekengi**
Covered in a thin, inedible membrane, it is slightly tart and not very sweet; it is often used to make jams and jellies because of its high pectin content.
**Japanese persimmon**
This national fruit of Japan is often eaten plain, with a spoon; the fuyu variety is eaten like an apple.

**kiwi**
Its juicy, slightly acidic green flesh has a high vitamin C content; delicious plain, its downy skin is generally discarded, although it can be eaten.

**carambola**
Within the delicate edible skin is a juicy, slightly acidic flesh that can be eaten raw or cooked, as a fruit or vegetable.

**watermelon**
This thirst-quenching fruit, named for its high water content, is primarily eaten plain, in slices.
**horned melon**
Its green flesh contains soft edible seeds, similar to those of the cucumber; it is often peeled and then made into juice.

**honeydew melon**
Owes its name to its very sweet, green flesh; its smooth firm rind turns creamy-yellow as it ripens.

**muskmelon**
Named for the characteristic musky smell of its flesh; it has a textured rind and its flavorful flesh is pink or orange.

**cantaloupe**
This orange-fleshed melon is characterized by its patterned textured ribs; the most widely cultivated variety is the charentais.
tomato
Native to Central America, this fruit is essential to Italian, Provençal, Greek and Spanish cooking.

eggplant
Yellowish and spongy-fleshed vegetable that is sometimes sweated with salt to alleviate its bitter taste.

autumn squash
The rind can be yellow, orange or green; often confused with the pumpkin, it can be recognized by its pedicel, which is soft and enlarged where it attaches to the vegetable.

pumpkin
Used primarily in North America, it can be recognized by its hard fibrous pedicel; its flesh is widely used in soups and desserts and its edible seeds are dried.
cucumber
Related to squash and melons, it bears seeds and is usually eaten raw.

zucchini
Small white-fleshed squash picked before fully ripe; it is an essential ingredient in ratatouille.

green sweet pepper
Mild pepper picked before fully ripe, it is used in many typical Mexican and Portuguese dishes.

summer squash
Picked when ripe, the seeds are removed and the flesh eaten raw or cooked; it bears edible flowers.
pome fleshy fruit
Fruit with a seed, or pip, surrounded by three distinct layers: an exocarp, a fleshy mesocarp and a stiff endocarp containing loculi.

technical terms

peduncle
Part of the fruit that once attached it to the terminal offshoot of the twig or branch.

loculus
Small cavity located under the endocarp, usually containing two seeds.

seed
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

mesocarp
Plump part of the fruit, usually sweet and juicy.

endocarp
The stiff inner layer of the fruit, surrounding and protecting the seed and covering the loculi.

exocarp
Fruit’s outer layer, covering the mesocarp.
usual terms

stalk
Part of the fruit that once attached it to the terminal offshoot of the twig or branch.

skin
Fruit's outer layer, covering the flesh.

pip
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

flesh
Plump part of the fruit, usually sweet and juicy.

core
Central inedible part of the apple, comprising the endocarp, the loculi and the seeds within the loculi.

sepal
Remnant of the flower's sepal, visible as small flowers around a depression on the bottom of the fruit.
Among its many and varied uses, it forms the basis for a fruit brandy; it is picked before fully ripe to prevent the flesh from acquiring a granular texture.

**quince**
Fruit of the quince tree, native to warm climates; inedible raw, it is traditionally made into jams and jellies.

**Japanese plum**
Has thin skin, sometimes covered in fine hairs, that envelops juicy, somewhat sour flesh; whether raw or cooked, it tastes somewhat like cherries or plums.

**Asian pear**
Most popular Asian fruit, primarily eaten plain; its flesh is sweet and juicy, like the pear’s, and crunchy, like the apple’s.

**pear**
Among its many and varied uses, it forms the basis for a fruit brandy; it is picked before fully ripe to prevent the flesh from acquiring a granular texture.
The fruit of the walnut tree is the nut, which has an edible seed; its stone, or shell, is surrounded by a fleshy husk.

**husk**
Fleshy covering, first green then changing to brown, that protects the walnut shell. The husk is used to produce a stain that makes white wood look like walnut.

**shell**
Hard fibrous ovoid casing that covers and protects the green walnut.

**green walnut**
Kernel of the walnut, divided into two main sections by the partition.

**partition**
Membranous barrier that divides the walnut kernel into sections.

**dry fruits**
Fruits with usually edible seeds, surrounded by a single dry, somewhat rigid layer.

**section of a walnut**
The fruit of the walnut tree is the nut, which has an edible seed; its stone, or shell, is surrounded by a fleshy husk.
section of a hazelnut
The fruit of the hazelnut tree, the hazelnut is an achene; its pericarp is covered by a cupule.

**cupule**
Thin scaly or prickly casing made of fused bracts; it partially or completely covers the hazelnut.

**bract**
Little leaf, smaller than the plant’s other leaves, attached to the peduncle of the flower or fruit.

**pericarp**
Small dry fruit containing a single seed not fused to the pericarp; when ripe, the achene cannot split unaided to release its seed.

**stigma**
Visible remnant of the flower’s stigma, now withered, forming a point at the fruit’s base.

**seed**
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.
section of a follicle: star anise
Follicle: dry single-chambered fruit that, when ripe, splits along the suture of its casing.

seed
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

follicle
Each of the eight dry fruits that make up the star anise.

suture
Visible seam on the surface of the fruit's casing, along which the fruit splits to release its seeds.
section of a silique: mustard
Silique: dry fruit with two valves that, when the fruit is ripe, split to release seeds.

style
Upper beak-shaped part of the fruit; it is sterile, thus contains no seeds.

seed
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.

septum
Thin barrier, bearing seeds on each side that drop when the valves open.

valve
The two parts of the fruit’s casing that, when it is ripe, separate to release the seeds.
section of a capsule: poppy
Capsule: dry many-chambered fruit that opens laterally or at the apex when ripe; it contains a great many seeds.

pore
Small orifice that enables the poppy casing to split open and the seeds to disperse.

seed
Structure formed by the development of a fertile ovule; it contains an embryo and nutrient reserves that enable a new plant to grow.
section of a legume: pea

Legume: dry single-chambered fruit that splits in two places when ripe: along the suture and along the midrib of its casing.

- **Calyx**: Coil of the flower’s sepals, which remain until the pod ripens.
- **Pea**: Round green fruit seed of varying size; it is edible.
- **Funiculus**: Slender strand that connects the seed to the midrib and provides food from the plant to the developing seed.
- **Hull**: Usual term for the pod’s pericarp, which bears the seeds; when the fruit is ripe, it splits in two distinct places to release the seeds.
- **Suture**: Visible seam on the surface of the fruit’s casing, along which the fruit splits to release its seeds.
- **Midrib**: Hollow flange that is an extension of the petiole; when ripe, the fruit splits along it to release its seeds.
- **Style**: Visible remnant of the flower’s style, now withered, that once connected the stigma to the ovary.
green bean
The young green pod is usually served as a vegetable side dish, sometimes with sauce or butter.

peanut
Often served as a snack, it is also made into a butter and a vegetable oil and, in some countries, into a spicy sauce served with a variety of dishes.

yard-long bean
Although mostly eaten fresh and whole, like the green bean, it is less juicy and sweet; its pods measure up to 3 ft in length.

sweet peas
Eaten freshly picked with the sweet and crunchy pod, hence their name; they are especially popular in Chinese dishes.
**coconut**

The whitish meat, known as copra, surrounds a cavity containing a refreshing liquid, not to be confused with coconut milk, which is derived from the grated flesh.

**Brazil nut**

Often served as an appetizer; it is also made into candy, such as when chocolate-coated. It replaces coconut in some recipes.

**cola nut**

Used in drink preparations such as Coca-Cola™; it contains stimulants that are slightly less potent than those in coffee.

**cashew**

This fruit of the cashew tree is always sold shelled; its shell is covered by a juicy fleshy edible layer known as the cashew apple.

**almond**

Primarily used to garnish chicken and fish, and to make almond paste, candies (nougat and pralines) and an essence that flavors Amaretto and a variety of foodstuffs.
pistachio nut
Its greenish kernel is covered with a brown skin; it is extensively used in Mediterranean and Asian cooking, as well as in pastry and candy making.

ginkgo nut
Extensively used in Japanese cooking but little known in the West, this nut is either eaten as is or is used in Asian dishes.

macadamia nut
A popular candy ingredient, it is often sold coated in chocolate or honey; it is also a popular ingredient in mixed vegetables, curries, salads and desserts.

pine nut
Edible seed inside the cone of certain species of pine that is often used in cooking and baking.

hazelnut
Primarily used to make paste, butter or a kind of flour used in cakes and cookies; in candy making, it is often combined with chocolate.

pecan nut
Native to North America, it is used to make certain savory dishes and numerous desserts, such as the traditional pecan pie.

chestnut
Designates the fruit of the chestnut tree; Europeans often serve it with game and poultry. When puréed, it is the main ingredient in the dessert known as Mont Blanc.

walnut
A green covering, the husk, covers the shell; the walnut is served as an appetizer, or added to a variety of desserts, salads, sauces and main dishes.

beechnut
Fruit of the common beech tree, its flavor resembles the hazelnut’s; more flavorful toasted than raw, it also yields a cooking oil.
Plants that are often cultivated on a large scale; their grains have been a major food staple for humans and certain domestic animals for centuries.

**section of a grain of wheat**
A grain of wheat is a small dry fruit whose single grain is fused to its casing; the varieties differ in size, shape and color.

- **brush**: Remnant of the flower’s stigmas; they resemble a tuft of hair atop the grain.
- **starch**: Part of the grain where the nutrients required for germ growth are stored; the starch can be ground into flour.
- **seed coat**: Protective many-layered casing covering the starch and the germ; once separated from the grain, it is known as bran.
- **germ**: The plant’s embryo, located in the lower part of the grain; after germination, it enables a new plant to grow.
wheat: spike
The spike is composed of a main axis bearing seeds without a pedicel; the seeds are clustered at the stem's apex.

wheat
Cereal cultivated for its grain, important in producing food, especially foodstuffs such as flour, bread and semolina.

barley: spike
The spike is composed of a main axis bearing seeds without a pedicel; the seeds are clustered at the stem's apex.

barley
Cereal cultivated for its grain; it is used mainly to produce malt for brewing beer and as cattle fodder.
rye
Highly resistant cereal whose grain is used mainly to feed cattle; it is used to produce flour that can be mixed with wheat flour to make bread.

rye: spike
The spike is composed of a main axis bearing seeds without a pedicel; the seeds are clustered at the stem's apex.

millet
Cereal cultivated as fodder or for its grain; it is used mainly to make unleavened bread and to feed domesticated birds.

millet: spike
The spike is composed of a main axis bearing seeds without a pedicel; the seeds are clustered at the stem's apex.

corn
Native American cereal cultivated for its grains and used for human and animal food; it is also used to produce a sweet syrup and a cooking oil.
silk
Tuft of long filaments emerging from the end of the spike casing; the filaments were once attached to ovaries that have now become kernels.

kernel
Each of the small dry fruits whose single seed is fused to its casing; a cob of corn holds several hundred kernels.

husk
Cob casing that protects the kernels and keeps them moist.

cob
The cob is composed of a wide main axis with rows of tightly packed kernels; each cob grows in the axil of a leaf along the stem.
Cereal cultivated for its grain; although it is mainly used to feed horses, humans also eat it, mostly in the form of flakes (rolled oats).

The panicle is composed of a main axis with offshoots, each stem bearing grains that have a pedicel.

Cereal cultivated for its grain, mainly ground into flour; it is also used to feed cattle and some domesticated birds.

The raceme is composed of a main axis and grains that have a pedicel, clustered at the stem's apex.
**rice**
Cereal whose grain is a major food staple in many parts of the world; rice is generally grown in flooded fields.

**rice: panicle**
The panicle is composed of a main axis with offshoots, each stem bearing grains that have a pedicel.

**sorghum**
Cereal cultivated for the sugar in its sap and for its grain; it is also used as fodder, to make unleavened bread and certain kinds of beer.

**sorghum: panicle**
The panicle is composed of a main axis with offshoots; at its apex, each stem bears a cluster of grains that have a pedicel.
herbs

Aromatic fresh or dried plants used separately or mixed to bring out the flavor of recipes; they often make excellent infusions.

**dill**
- Used primarily for its leaves and seeds, it imparts flavor to vinegar and pickles as well as to salmon and herring.

**anise**
- Extensively used in making candy (licorice) and liqueurs (pastis), its edible leaves and seeds can flavor savory as well as sweet dishes.

**sweet bay**
- The dried leaves must be used sparingly; it is an ingredient in bouquets garnis and is used to flavor soups and stews.

**mint**
- Gives a refreshing taste to numerous sweet and savory dishes, such as lamb; its aromatic essential oil is used to flavor candy, liqueurs and many other types of food.

**chervil**
- Has a subtle delicate taste and is used like parsley; it is often included with tarragon, parsley and chives in a traditional blend known as fines herbes.

**sage**
- Its pungent flavor complements a variety of dishes; it is often used with pork, duck and goose, as well as in Italian veal dishes.
oregano
Wild, slightly more flavorful variety of marjoram; extensively used in Mediterranean cooking, it goes especially well with tomato dishes.

tarragon
Has a slightly bitter, peppery anise flavor that complements bland foods; it is often used with chicken and is always used in béarnaise sauce.

coriander
Its leaves are used like parsley and it has edible musk- and lemon-scented seeds; the roots can be substituted for garlic.

parsley
The smooth flat-leafed parsley is less bitter and more fragrant than curly-leafed parsley; it is used to flavor numerous recipes, such as tabbouleh.

thyme
Used with parsley and sweet bay to make bouquets garnis; because it withstands lengthy cooking, it is a popular choice for flavoring soups and stews.
Lovage
Resembles celery but with a stronger flavor; it is particularly tasty with potatoes and also goes well with ragouts, sauces and salads.

Savory
Reminiscent of thyme, its flavor enhances legumes, meat and stuffing; it is also used to flavor vinegar and goat's milk cheeses.

Borage
Delicious in yogurt, cream cheese or salad dressing; the young leaves can be used in salads.

Hyssop
The highly aromatic leaves are mostly used in salads, soups, ragouts and fruit platters, as well as in some liqueurs, such as Chartreuse and Benedictine.

Rosemary
Its fairly pungent, aromatic flavor is very popular in southern France and in Italy, where it is used especially in sauces and marinades, and with roast meat.

Lemon balm
Its lemon-scented leaves are used extensively in Asian cooking; it goes well with bitter foods.
Aromatic beverages derived from ground beans (coffee) or dried plants (tea, herbal tea) that are combined with boiling water.

### coffee and infusions

<table>
<thead>
<tr>
<th>Green coffee beans</th>
</tr>
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<tbody>
<tr>
<td>The green beans remain fresh for many years but the roasted beans quickly lose their flavor.</td>
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<table>
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<tr>
<th>Coffee</th>
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<tbody>
<tr>
<td>The seeds of the coffee tree can be used to prepare an extremely popular beverage, drunk hot or cold (iced coffee), and well known for its stimulant properties.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Tea</th>
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<tbody>
<tr>
<td>Infusion made from the dried leaves of the tea tree; drunk hot or iced, it is the world’s most popular beverage after water; it is sold in bags or loose.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Herbal teas</th>
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<td>Infusions made with aromatic dried herbs or plants, usually considered to have calming, digestive, tonic or curative properties.</td>
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<tr>
<th>Black tea</th>
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<tr>
<td>Made from tea leaves that are fermented and then dried, it represents more than 98% of the total worldwide production of tea.</td>
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<td>This unfermented product is very popular in China, Japan and Muslim countries; it has a more bitter taste than black tea.</td>
</tr>
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<table>
<thead>
<tr>
<th>Linden</th>
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<tbody>
<tr>
<td>Tree whose dried leaves and flowers can be made into herbal teas, considered to have calming, sedative and soothing properties.</td>
</tr>
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<tr>
<th>Chamomile</th>
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<td>Herbal teas made from the flowers and leaves of this plant are considered to have digestive and calming properties.</td>
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grape

Climbing plant usually cultivated for wine making or for the table.

**vine stock**
Base of the vine on which branches grow.

**fruit branch**
Secondary offshoot of a vine shoot; it first bears flowers, then fruit.

**sucker**
Non-fruit-bearing branch produced by plants over one year old.

**trunk**
Main part of the vine located between the soil and the first branches.

**root system**
The aggregate of the roots that anchor a plant to the soil and enable it to absorb water and mineral salts from it.
terminal lobe
Somewhat rounded section of the blade comprising the apex of the leaf.

upper lateral sinus
Indentation of the leaf's main part, separating the terminal lobe from the upper lateral lobe.

upper lateral lobe
Somewhat rounded section of the blade located on the side of the leaf, in its upper quadrant.

lower lateral lobe
Somewhat rounded section of the blade located on the side of the leaf, in its lower quadrant.

lower lateral sinus
Indentation of the leaf's main part, separating the upper lateral lobe from the lower lateral lobe.

petiolar sinus
Indentation of the leaf's main part, where it attaches to the petiole.
bunch of grapes

**grape**
Differently colored fruit cultivated for the table or for wine making.

**pedicel**
Terminal offshoot of the stem or twig; it first connects the flower, then the fruit, to the peduncle.

**peduncle**
Offshoot that connects the cluster to the branch.

**branch**
Secondary offshoot of a branch or a vine shoot.

**tendril**
Spiral strand enabling the vine branch to attach itself to a natural or artificial support.
examples of grapes

There are many varieties of grapes, with colors ranging from green to red and blackish-blue.

Muscat grapes
Red grapes with a fine skin and a slightly musky taste.

Corinth grapes
Small, very sweet black grapes, often dried to make raisins.

Cardinal grapes
Large red grapes with a very firm flesh.

Thompson grapes
Large green seedless grapes, most of which are grown in North America.

Chasselas grapes
Very juicy green grapes cultivated mainly for eating.
**maturing steps**
The harvest occurs about 100 days after flowering, after the grape has gone through four successive maturing steps.

- **flowering**
  First step in the maturing process, when flowers appear.

- **fruition**
  Second step in the maturing process, when the grape berries are formed.

- **ripening**
  Third step in the maturing process, when the grapes darken and become translucent.

- **ripeness**
  Last step in the maturing process, when the grapes are ripe and ready to be picked.
understory
Lower story of the forest, above the ground, where there is little vegetation.

emergent tree
Tree dominating the forest, which supports long vines and various other plants.

canopy
Top story of the forest, which houses most of the plant and animal species.

tropical rainforest
Dense, humid forest of tropical climates, containing very high biodiversity.
tree

Large vegetable whose root system and aboveground part are well developed; it produces oxygen and provides wood.

structure of a tree
The tree is composed of an underground part, the roots, and two aboveground parts, the trunk and the crown.

foliage
The aggregate of the leaves on a tree; it is especially adapted to capture light and perform photosynthesis.

crown
Part of the tree above the trunk, including the branches and the foliage.

limb
Offshoot growing directly out of a tree trunk, subsequently dividing into branches and twigs.

bole
Part of the tree trunk extending between the stump and the first lower limbs; it has no offshoots.

trunk
Main part of the tree extending between the soil and the lower branches.

taproot
First root growing out of the seed that grows vertically into the soil; it usually has few offshoots, its main function being to anchor the tree in the ground.
branches
The aggregate of larger and smaller branches that provide support for the tree's leaves, flowers and fruit.

branch
Offshoot of one of the tree's limbs.

twig
The most slender offshoot of a tree branch.

shallow root
Root, often having many offshoots, growing somewhat horizontally into the rich moist topsoil.

radicle
The most slender offshoot of a tree root.

root-hair zone
Part of the radicle covered in small absorbent hairs that ensure the tree is supplied with mineral salts and water.

shoot
Young shoot that sprouts out of the tree stump.

stump
Lower part of the trunk that remains in place, with its roots, when the tree is cut down.
cross section of a trunk
Moving from the center to the periphery there are six parts: the pith, the heartwood, the sapwood, the cambium, the phloem and the bark.

annual ring
Each of the concentric circles representing the layer of wood produced in one year; the age of the tree can be determined by the number of rings.

wood ray
Conduit connecting the pith to the core and circulating nutrients horizontally within the trunk.

cambium
Growth tissue that simultaneously produces the external phloem and the internal sapwood, thereby enabling the tree to increase in diameter.

pith
Central part of the trunk, composed of soft tissue that contains nutrients essential for sapling growth.

phloem
Tissue located immediately below the bark, whose main function is to transport sap transformed by photosynthesis from the leaves throughout the rest of the tree.

sapwood
Relatively new layer of wood that is generally pale in color; it transports raw sap, composed of water and nutrient minerals, from the roots to the leaves.

heartwood
Hard dark-colored wood layer made of dead sapwood; it encircles the pith and supports the trunk and branches.

bark
Tree’s external protective layer; its texture and color vary depending on the species.
shape of a tree
General silhouette of a tree, which varies according to the species and the growth conditions.

*oval shape*
Habit characterized by many well-developed small branches.

*weeping shape*
Habit in which branches begin to grow upward, then droop downward.

*pyramidal shape*
Habit that is pyramid shaped, characteristic of many conifers.

*columnar shape*
Habit that is almost cylindrical in shape characterized by short, thin branches.
**lilac**
Shrub cultivated as an ornamental plant, whose highly scented flowers are mauve, white, or pink.

**birch**
Tree whose most common species has smooth white bark covered in black markings; the bark readily peels off the trunk in large sections.

**oak**
Large tree with deeply indented leaves, bearing acorns as fruit; it is prized for its hard and extremely resistant wood.

**examples of broadleaved trees**
Broadleaved trees have mainly large flat leaves; in temperate zones, these usually fall as winter approaches.
PLANTS

**palm tree**
Tree native to tropical regions; among its various species are date- and coconut-bearing kinds.

**weeping willow**
Tree with long flexible hanging branches; it is often used for ornamental purposes and generally grows near water.

**beech**
Smooth-barked tree, prized for its ornamental value and its wood; it is used especially in woodworking and for heating.

**palm tree**
Tree native to tropical regions; among its various species are date- and coconut-bearing kinds.
maple
Tree producing the samara, a small dry winged fruit; its wood is prized by cabinetmakers. The sugar maple tree’s sap can be made into a syrup.

poplar
Tall slender fast-growing tree; its soft wood is used especially in woodworking and to make pulp for papermaking.

walnut
Large tree that produces an edible fruit, the walnut; its hard compact wood is prized especially by carpenters for its use in making furniture.
Tree that usually retains its needle- or scalelike leaves all winter long; it bears cones, hence its name, and produces a sticky sap known as resin.

**structure of a conifer**
Conifers, like other trees, have an underground part, the roots, and two aerial parts, the trunk and the crown.

- **crown**
  Part of the tree above the trunk, including the branches and the foliage.

- **foliage**
  The aggregate of the leaves on a tree; it is especially adapted to capture light and perform photosynthesis.

- **trunk**
  Main part of the tree extending between the soil and the lower branches.

- **shallow root**
  Root, often having many offshoots, growing somewhat horizontally into the rich moist topsoil.
cone
Fruit borne by conifers, consisting of scales arranged in a conical shape; when the cone is ripe, seeds develop under it.

pine seed
Edible seed inside the cone of certain species of pine that is often used in cooking and baking.

branch
Offshoot of a tree branch along which cones develop.

female cone
Each female cone, growing erect on a branch, contains ovules that are fertilized by pollen grains; the ovules subsequently turn into seeds.

male cone
The male cone is usually smaller than the female cone; it produces pollen grains that subsequently disperse into the air.
examples of leaves
Conifer leaves consist of scales or needles, varying in length and width.

cypress scalelike leaves
The cypress has scales or small short stiff leaves whose blades grow directly out of the twig.

pine needles
Pine leaves consist of long slender pointed needles; they grow in groups of two, three or five out of the branch.

fir needles
Fir leaves consist of short hard flattened needles; each needle grows directly out of the branch.
examples of conifers
There are 550 conifer species; because they are well adapted to harsh climates, they often form the tree line on mountains and in subpolar regions.

umbrella pine
Conifer native to the Mediterranean area whose branches form a flattened crown, hence its name; it produces an edible seed, the pine nut.

larch
One of the few conifers that sheds its needles in the fall; its scented, resistant wood is used in construction and carpentry.

cedar of Lebanon
Conifer of Middle Eastern origin with a large, flattened top; now rare, former civilizations made abundant use of its wood.
**spruce**
Conifer with small cylindrical needles encircling the branch; it has reddish-brown bark and can grow to 180 ft.

**fir**
Scented conifer with flat needles arranged on each side of the branch; it has grayish bark, flecked with resin. Fir is commonly used as a Christmas tree.
**wood**

Relatively hard, dense substance forming the trunks, branches and roots of trees. The wood of each species has distinct characteristics.

**section of a log**

---

**board**
Flat piece of wood less than 2 in in thickness, used in carpentry and created when a log is cut along its length.

**slab**
First or last cut to a log; it is round and includes the bark.

**log**
Cylindrical piece of wood obtained by cutting a tree trunk into sections.
**board**
Flat piece of wood less than 2 in in thickness, used in carpentry and created when a log is cut along its length.

**face side**
Surface of a piece of wood carefully finished to be the visible side of a piece of woodwork.

**grain**
Direction and arrangement of the fibers in wood. A straight and regular grain makes the wood easy to work with.

**edge**
The two lengthwise sides of the board, which correspond to its thickness.

**end grain**
Surface of a piece of wood cut against the grain.

**back**
Surface of a piece of wood not meant to be seen.
wood

**wood-based materials**
Materials obtained when a log is converted; also when various wood elements are assembled or agglomerated.

**peeled veneer**
Thin sheet obtained from rotating a log on a peeling machine and applying a blade (lathe) to it.

**laminboard**
Panel made of two layers sandwiching a central part (core), which is made up of wide slats, or laminations, glued side by side.

**waferboard**
Panel made from wood chips mixed with glue, then pressed at a high temperature to bond them.
**ply**  
Thin sheets of wood (veneer) of equal thickness, used for the manufacture of plywood.

**multi-ply plywood**  
Panel made from at least five layers, each glued to the other with their respective grains running perpendicular to the adjacent layer.

**blockboard**  
Panel made of two layers sandwiching a central part (core), which is made up of wide slats glued side by side.

**hardboard**  
Smooth and homogeneous board made when minuscule wood fibers are soaked in resin and pressed at a high temperature.

**perforated hardboard**

**particle board**  
Board made from sawdust mixed with glue, then pressed at a high temperature to bond them.

**plastic-laminated particle board**  
Particle board with a melamine surface layer that is hard, smooth and easy to wash.
Vegetation plays an essential role in maintaining biospheric equilibrium; it varies depending on climate and soil characteristics.
**tundra**
Plant formation that grows in relatively arid regions; it includes mosses, lichens, grasses, bushes and dwarf trees.

**boreal forest**
Vast expanse of forest composed mainly of conifers, although certain deciduous trees also grow here.

**temperate forest**
Forest composed mainly of deciduous trees, including oak, ash and beech.

**grassland**
Vast expanse of herbaceous plants, mostly grasses; virtually devoid of trees, these regions are characterized by relatively cold, dry winters.

**tropical rain forest**
Dense forest whose biodiversity is among the richest; its growth is fostered by abundant and regular precipitation.

**savanna**
Vast expanse of herbaceous plants, dominated by tall grasses and shrubs; it is typical of hot regions that have a rainy season.

**maquis**
Vast expanse of degenerated vegetation composed of shrubs with evergreen leaves; it is adapted to summer drought.

**desert**
Hot region where aridity (less than 4 in of annual rainfall) is such that plant and animal life is almost nonexistent.

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Elevation zones and vegetation

Types of vegetation vary depending on temperature and rainfall, which in turn depend on altitude.

- **Glacier**
  Mass of ice resulting from the accumulation and compression of snow; it moves under its own weight.

- **Tundra**
  Plant formation that grows in relatively arid regions; it includes mosses, lichens, grasses, bushes and dwarf trees.

- **Coniferous forest**
  Forest composed mainly of softwood trees with evergreen leaves in the form of needles or scales.

- **Mixed forest**
  Forest composed of conifers and deciduous trees.

- **Deciduous forest**
  Forest composed mainly of trees with broad leaves that grow back every year.

- **Tropical forest**
  Dense, highly varied forest in the intertropical zone, where precipitation is abundant and regular.
structure of the biosphere
Biosphere: the part of the Earth's covering where life is possible; it extends from the floor of the oceans to the summit of the highest mountains (about 12 mi).

lithosphere
Outer layer of the Earth's crust; only its upper portion, to a depth of 1 mi, is part of the biosphere.

atmosphere
Layer of air that surrounds the Earth and is composed mainly of nitrogen (78%) and oxygen (21%); only its lower portion is part of the biosphere.

hydrosphere
A collective term for the planet's waters, including the oceans, seas, lakes, watercourses and underground water systems.
pleasure garden
Private plot reserved for cultivating ornamental plants where one strolls and relaxes.

ornamental tree
Tree planted for decorative purposes.

lantern
Exterior light having a high stand that is fixed to the ground; it consists of a translucent or transparent cage containing a light source.

shed
Structure used for storing garden equipment.

fan trellis
Wood, plastic or metal laths forming a decorative structure or a support for climbing plants.

bush
Small tree usually no taller than 3 ft.

pond
Small body of water, usually artificial, built for ornamental purposes.

paling fence
Barrier made of aligned wooden planks to demarcate a lot.

edging
Row of stones or other solid material demarcating a path.

flower bed
Small plot of land adorned with plants, usually flowers.

rock garden
Area of land strewn with ornamental rocks, among which plants grow.
GARDENING

climbing plant
Plant growing upward using a nearby structure as support.

pergola
Small structure with horizontal girders supported by posts, used as a support for baskets or climbing plants.

patio
Outdoor surface of various sizes usually covered with flagstone.

hanging basket
Hanging container for ornamental plants.

hedge
Bushes planted in a row to demarcate a lot.

clump of flowers
Grouping of flowers planted in a decorative manner.

lawn
Short thick grass requiring regular mowing.

clump of flowers
Grouping of flowers planted in a decorative manner.

stake
Stick for training a stem or for supporting a fragile one.

tub
Container for ornamental or edible plants.

path
Walkway bordered by plants.

pleasure garden
basic building materials

Components that, when assembled, form the structure of a building.

**solid brick**
Small brick, not perforated, used especially in building or covering various types of walls.

**concrete block**
Concrete component, solid or hollow, used mainly in the construction of masonry as a substitute for brick.

**firebrick**
Brick that can withstand very high temperatures without deforming.

**flagstone**
Flat stone of irregular shape, used to cover floors and walls.

**rubble**
Small block of rough or crudely carved stone, usually assembled with the help of mortar to build a wall.

**mortar**
Mixture of fine aggregates (pebbles, gravel, sand), water and a binder (cement or lime), used to join masonry components or to coat masonry after it is completed.
Instruments used for working the soil in cramped spaces, such as a flower bed, small clumps, containers and baskets.

**hand fork**
Tool equipped with straight, somewhat flat tines, used mainly for loosening the soil.

**trowel**
Small shovel used for digging a hole for planting or for removing a seedling.

**small hand cultivator**
Tool with tines curved at right angles, usually used for loosening, aerating and weeding the soil.

**weeder**
Tool with a narrow blade for pulling up weeds with deep roots.

**gardening gloves**
Article of clothing covering the hands to protect them when gardening.
**miscellaneous equipment**

**wheelbarrow**
Small one-wheeled handcart for transporting material such as supplies, tools, soil and debris.

**wheel**
Circular object rotating around an axle so that the wheelbarrow can be moved.

**tray**
Container designed to hold a load.

**handle**
Arm for lifting and moving the wheelbarrow.

**leg**
Part supporting the wheelbarrow when at rest.

**compost bin**
Container for decomposing organic waste from the garden and kitchen to produce fertilizer (compost).
**motorized earth auger**
Machine using a rotating bit to quickly dig holes of various sizes in the ground.

- **handle**: Arm for guiding the auger and the bit.
- **control cable**: Cable transmitting the motor's energy to the bit's clutch assembly.
- **starting cable**: Electric cable controlling the starter.
- **auger bit**: Detachable rotating part, with a twisted shank for digging holes.
- **motor**: Device converting the combustion of fuel and air into mechanical energy.
garden line
Cord stretched between two stakes and used as a guide for marking straight furrows and edges for a border or a hedge, or for demarcating sections of a vegetable garden.

seeder
Small shovel fitted with a distribution device for sowing seeds without touching them.

dibble
Pointed tool for digging a small hole in the ground in which to plant seeds or bulbs.

bulb dibble
Tool with a cylindrical container for removing a core of soil to create a hole in which plant bulbs or young plants are planted.
**spreader**
Small handcart with a reservoir and distribution mechanism for evenly spreading seeds or fertilizer on an area.

**stake**
Stick for training a stem or for supporting a fragile one.

**wheel**
Circular instrument rotating around an axle so that the device can be moved.
tools for loosening the earth

lawn edger
Tool with a semicircular blade for trimming the edge of the lawn, usually along a driveway, a patio or flower bed.

spading fork
Tool with metal tines, which make it easier to loosen soil that is hard or contains many stones or roots.

shovel
Tool used for digging holes and manipulating various objects, such as soil, sand and compost.

spade
Tool with a flat or slightly concave blade, used mainly for turning over soil.
**hook**
Tool with curved tines, used to handle fertilizer and compost, pull up root vegetables and loosen or weed the soil.

**hoe**
Tool with a thick sturdy blade attached directly to the handle; it is used especially for loosening and weeding dense soil.

**pick**
Tool whose head is pointed on one end and has a cutting edge on the other; it is used to break up hard or rocky soil.

**rake**
Tool with tines perpendicular to the handle, for leveling the soil, removing pebbles and gathering debris.
tools for loosening the earth

**hoe-fork**
Tool with a blade, which serves as a hoe, and tines; it is used especially for making furrows.

**draw hoe**
Tool whose blade loosens, weeds and aerates the soil; it is also used to groom the soil around a plant.

**scuffle hoe**
Tool whose blade, more slanted that that of the draw hoe, loosens, weeds and aerates the soil; it is also used for harvesting root vegetables.

**weeding hoe**
Tool with claws designed mainly for loosening and weeding soil.
tiller
Motorized machine that uses its rotating tines to turn over and loosen the soil and mix fertilizer into it.

forward/reverse
Mechanism for selecting the direction in which the tiller moves.

handlebar
Arm for steering the tiller.

clutch lever
Lever controlling the tiller’s motion and the tines’ rotation.

tine
Cutting blade connected to a rotating axle; it digs into the soil to loosen it.

frame
Metal structure of the tiller.

starter
Hand-activated device pulling a cable to start the motor.

motor
Device converting the combustion of fuel and air into mechanical energy.
**hose trolley**
Reel mounted on a cart, for transporting and storing a garden hose.

**garden hose**
Circular pipe, flexible or semirigid, conducting water from a tap to a watering device such as a nozzle, gun or sprinkler.

**trolley crank**
Handle for rolling up the garden hose on the reel.

**reel**
Spool for quickly rolling and unrolling a garden hose.

**tap connector**
Threaded part receiving a hose connected to a tap.

**hose nozzle**
Detachable instrument attached to the end of a garden hose, for adjusting the shape and flow of the water spray.
**watering can**
Container fitted with a long neck, usually with a rose at its end, used for sprinkling plants with water or treatment products.

**tank sprayer**
Device with a tank and a wand that sprays fine droplets of water or treatment products on plants and soil.

**sprinkler hose**
Hose with small openings through which water flows; placed on the ground, it deeply waters large areas.

**handle**
Part shaped like a semicircle for gripping the can.

**rose**
Detachable perforated part causing water or a liquid to pour in a shower.
spray nozzle
Watering gun with a wide head that contains small holes, used for watering flowers and delicate plants with a fine shower.

sprayer
Small atomizer used mainly for spraying plant foliage and seedlings.

pistol nozzle
Watering nozzle activated by means of a trigger flow switch.
revolving sprinkler
Watering device with rotating arms that distribute water in a full circle.

oscillating sprinkler
Device with a bar containing multiple nozzles; it moves back and forth to spray water in the shape of a fan over large areas.

arm
Part attached to the sprinkler's pivot for distributing water.
impulse sprinkler
Watering device whose single nozzle is mounted on a pivot that rotates in jerks, emitting a powerful spray to distribute water in a circle or arc.

metal arm
Device that spreads water evenly to avoid puddles and splashing on the sides.

trip lever
Ring-shaped part for adjusting the area to be watered (full or semicircle).

nozzle
Part with an opening through which the water spray is projected.

deflector
Device modifying the spray's range.

diffuser pin
Device fragmenting the spray to vaporize the water.

hose connector
Part receiving a garden hose.

sled
Support for the sprinkler; it allows the device to be moved by pulling on the hose, which avoids treading on watered areas.
pruning shears
Tool resembling large scissors, used mainly for cutting stems and small branches.

lopping shears
Long-handled pruning shears, used to cut medium-sized branches.

axe
Tool with a thick blade attached to a handle, used especially to fell small trees and chop wood.
hedge shears
Tool with two blades that articulate like scissors, for trimming hedges, borders or perennials.

grafting knife
Small pointed knife, very sharp, designed to make grafting cuts.

pruning saw
Handsaw with a straight or slightly curved blade, used to cut relatively large branches.
**sickle**
Tool with a crescent-shaped blade attached to a short handle, for cutting grass in areas that are inaccessible to a lawn mower.

**pruning knife**
Small billhook for cutting small branches or performing various tasks requiring a light cut.

**billhook**
Tool with a powerful hooked blade, used especially to cut branches and undergrowth.
hedge trimmer
Portable electric tool with a toothed blade, for trimming hedges and borders.

cord
Flexible electric wire housing the leads connecting the appliance to the electric circuit.

trigger
Mechanical connection device for switching the tool on or off by pressing it with a finger.

electric motor
Device transforming electric energy into mechanical energy to drive another device.

hand protector
Part to protect the user from contact with the blade and to stop debris from being thrown toward the user.
Each of the small points forming the cutting part of the blade; their spacing determines the finishing quality.

**scythe**
Tool with a curved blade connected to a long handle with two grips, for cutting tall grass or in an area that is inaccessible to a lawn mower.

**tree pruner**
Pruning shears mounted on a long pole whose blade is activated by a cord, for cutting hard-to-reach branches.

**blade**
Thin metal part using a back-and-forth motion of the teeth to trim plants.
pruning and cutting tools

chainsaw
Portable motorized saw with a cutting chain; it is manipulated with two hands to cut tree limbs, fell trees and saw wood.

chain brake
Part that is the machine's shield and release lever for stopping the chain in case of kickback or a false move.

cutter link
Chain link on which a rounded cutting blade is mounted.

guide bar
Grooved metal blade along which the chainsaw chain moves.

chainsaw chain
Chain equipped with cutter links, which move at high speed along the edge of the guide bar.
antivibration handle
Auxiliary handle, insulated from the housing by rubber shock absorbers that dampen the vibrations produced by the tool.

air filter
Device that removes dust from the air entering the engine.

stop button
Button for instantly stopping the engine.

security trigger
Device blocking the accelerator control to prevent the chain from being activated accidentally.

handle
Part for gripping and handling the tool.

accelerator control
Mechanism for starting, stopping and controlling the speed of the chain.

fuel tank
Reservoir containing the fuel supplying the engine.

starter handle
Handle connected to a cable that is pulled to start the engine.

oil pan
Reservoir containing oil for lubricating certain parts of the tool, such as the chain.
edger
Portable motorized tool, equipped with nylon yarn rotating at high speed, used for cutting grass in places inaccessible to a lawn mower.

nylon yarn
Nylon cord that, due to its high-speed rotation, cuts the grass.

electric motor
Device transforming electric energy into mechanical energy to drive another device.

security casing
Part protecting the user from contact with the nylon yarn and preventing debris from being thrown toward the user.

cord
Flexible electric wire housing the leads connecting the appliance to the electric circuit.

handle
power mower
Motorized device using a rotating horizontal blade to cut grass over large areas.

handle
Bar for moving and guiding the mower.
safety handle
Lever controlling both the blade rotation and the wheel motion.
starter
Hand-activated device pulling a cable to start the motor.
filler cap
Cylindrical part plugging a tank’s filler opening.
motor
Device converting the combustion of fuel and air into mechanical energy.
casing
Part supporting and covering a rotating blade for cutting the grass.
deflector
Part deflecting the cut grass toward the grassbox.
grassbox
Detachable container collecting the cut grass.

lawn care
GARDENING
**lawn tractor**
Small motorized vehicle upon which a mower deck is fixed, for cutting large expanses of grass.

- **seat**: Part for sitting while operating the vehicle.
- **ignition key**: Part that is inserted into the ignition switch to start or stop the motor.
- **cruise control lever**: Mechanism for selecting the vehicle’s speed.
- **brake pedal**: Lever that the operator presses with the foot to activate the brake system.
- **rear wheel**: Circular part rotating around an axle upon which a device rests; in this case, the rear of the vehicle. Its rear wheels are the driving force.
- **forward travel pedal**: Lever that is held down to let the vehicle go forward.
- **reverse travel pedal**: Lever that is held down to let the vehicle back up.
- **mower deck**: Mobile structure supporting and covering one or more rotating blades that cut the grass.
- **deflector**: Part projecting the cut grass to the side.
- **gauge wheel**: Small adjustable wheel following the contours of the terrain to give a uniform cut over uneven surfaces.
steering wheel
Circular instrument used by the operator for steering the front wheels.

mower deck lift lever
Lever for adjusting the mower deck's height.

hood
Lidlike part of the body covering and protecting the motor.

headlight
Lamp on the front of the vehicle to light up the space in front.

front wheel
Circular part rotating around an axle upon which a device rests; in this case, the front of the vehicle. Its front wheels guide the lawn tractor.
hand mower
Hand tool equipped with a rotating cutting cylinder, used for mowing the grass over a small area.

handle
Bar for moving and guiding the mower.

blade
Spiral metal part that, together with the other blades, forms the cutting cylinder.

cutting cylinder
Part with several rotating blades that push the grass back against a fixed blade to cut it.

wheel
Circular instrument rotating around an axle so that the device can be moved.
lawn aerator
Roller fitted with points for puncturing the lawn in order to aerate it and facilitate the entry of substances such as water and fertilizers.

roller
Tool consisting of a hollow cylinder, filled with water or sand; it is rolled over the soil in order to tamp it down and even it.

lawn rake
Instrument equipped with flexible metal tines, arranged like a fan, used to gather dead leaves, cut grass or bits of debris on the lawn.
ladders and stepladders

Movable devices of wood or metal, composed of rungs or steps and used to reach relatively high areas.

fruit-picking ladder
Double ladder specially designed for picking fruit and for pruning and maintaining trees.

multipurpose ladder
Ladder with several folds, which can be locked in a number of positions.

stepladder
Small ladder, often folding, that is usually composed of three to six steps.

extension ladder
Straight ladder of adjustable height, made up of two superimposed planes that slide one on the other.

side rail
Part supporting rungs or steps.

brace
Folding cross piece maintaining the gap between the two opposite side rails, thereby providing stability.

step
Flat narrow surface that supports the feet when climbing, descending or standing.

rung
Bar on a ladder that constitutes a step.
straight ladder
Ladder that leans against a wall, comprised of two parallel side rails joined by rungs.

hook ladder
Straight ladder with one end having fixed or detachable hooks to keep the ladder in place on a structure.

rope ladder
Suspension ladder whose side rails and rungs are made of cord.

ladder scaffold
Movable structure made up of two vertical ladders and a work platform as well as wheels fitted with blocking devices.

rolling ladder
Movable ladder fitted with a platform and a safety rail; it can be moved on wheels equipped with blocking devices.
farmstead
All the structures belonging to an agricultural concern and used as dwellings or in its operation.
meadow
Ground covered in grass, which the farmer mows to produce fodder (hay, alfalfa, etc.) for cattle.

fodder corn
Variety of corn used as cattle feed.

dairy
Room where milk is stored and refrigerated before it is collected; it is also the place where milk is converted into butter and other by-products.

cowshed
Building where bovines are housed; the animals are often separated by age or type (raised for meat or for milk).

tower silo
Cylindrical structure used to store silage; it is always filled from the top, using a specially constructed apparatus.

bunker silo
Long flat structure used to store silage; filling it requires no specialized equipment.

pigsty
Building used to house pigs, usually raised to be slaughtered.

enclosure
Fenced-in space where animals can move about.

hive
Shelter constructed to house a bee colony that produces honey and pollinates fruit trees.

sheep shelter
Building where ovines (rams and ewes) are housed; these sheep are raised mainly for their meat and wool, and sometimes for their milk.

greenhouse
Structure with translucent walls where vegetables are grown under controlled conditions that promote their growth.

fruit tree
Tree that bears edible fruit, usually intended for human consumption.

orchard
Land planted with fruit trees.
steps for cultivating soil

pulverizing soil

ribbing plow
Plowing-tilling device for cutting up and plowing in furrow slices.

plowing soil

manure spreader
Device for scattering a mixture of litter and fermented animal waste over the soil to fertilize it.

fertilizing soil

tandem disc harrow
Device with four disc trains arranged in two opposing V patterns; it loosens the soil that has already been plowed and eliminates weeds.
seed drill
Farming tool that spreads and plows seeds into the soil following straight lines (furrows).

flail mower
Device that cuts the forage stalks as it moves and prepares them for the next harvesting phase (drying on the field and collection).

rake
Device for turning over hay.
**harvesting**

**combine harvester**
Vehicle that harvests seed crops, usually grain; it cuts, threshes and separates the seeds from the chaff.

**hay baler**
Device that harvests the forage and compresses it into bales.

**forage harvester**
Device that harvests herbage (such as alfalfa, clover and corn) for feeding livestock.

**ensiling**

**forage blower**
Farm machine that forces the harvested forage (e.g., grass, wheat and corn) into the silo.
tractor

Motorized machine used for operating farm equipment and tools.

tractor: rear view
The back end of the tractor is fitted with the equipment necessary to haul farm equipment or supply mechanical power to it.

headlight
Lamp on the rear of the vehicle that illuminates the work area.

coupler head
Linking device between the tool and the draft link.

tailight
Lamp that illuminates automatically when the front lights are on and shines more brightly when the operator steps on the brake pedal.

hydraulic cylinder
Hydraulically powered device made up of a cylinder and a piston, which drive the draft link.

draft link
Bar with a coupler head for towing.

towing hitch
Device for attaching the coupler-head ring of a towed piece of agricultural machinery.

power takeoff
Mechanism consisting of a grooved shaft that uses the engine's power or the tractor's movement to drive a tool or equipment being towed.

compression link
Bar fastened to a tool that is coupled to the draft link to prevent it from tipping up or down.
tractor: front view
There are tractors with two or four driving wheels and two or four wheels that change the direction of the tractor.

exhaust stack
Vertical upper part of the conduit that evacuates exhaust gas from the engine.

cab
Compartment from which the operator drives the truck and operates the tools or agricultural machinery.

engine compartment
Device converting the combustion of fuel and air into mechanical energy.

headlight
Lamp on the front of the vehicle that illuminates the space in front.

counterweight
Mass that balances and stabilizes the tool hitched to the tractor.

front wheel
Wheel that changes the tractor's direction; it is usually smaller than the rear wheel.
steering wheel
Circular instrument used by the operator for steering the guide wheels.

fender
Part of the body that covers part of the wheel and serves as a shield from flying mud.

rim
Metal circle constituting the wheel's circumference and upon which the tire is mounted.

tread bar
Raised part of the tire tread that improves traction for various usage conditions.

step
Tread or set of treads built into the body for climbing up to or down from the cab.

driving wheel
Wheel that receives the engine's power and propels the tractor.
agricultural machinery

Mechanized devices used in farming.

ribbing plow
Plowing-tilling device for cutting up and plowing in furrow slices.

frog
Metal part attached to the end of the leg that supports the moldboard and the shear.

leg
Metal part that connects the frog to the beam.

beam
Horizontal bar that supports the parts of the plow and receives the pulling action.

coupler head
Device that secures the ribbing plow to the tractor’s towing hitch.

moldboard
Metal surface that lifts and plows in the furrow slice that was cut up by the colter and the shear.

heal
Part on which the plow rests when it is not supported by the tractor.

share
Steel blade that cuts the furrow slice horizontally.

colter
Round part that cuts the furrow slice vertically.

colter’s shaft
Metal structure that supports the colters.
tandem disc harrow
Device with four disc trains arranged in two opposing V patterns; it loosens the soil that has already been plowed and eliminates weeds.

disc arm
Metal structure to which the discs are attached.

frame
Tandem disc harrow’s metal structure.

disc
Dish-shaped part that breaks up clods of earth.

height adjustment
Crank for adjusting the depth of the discs’ penetration into the soil.

hydraulic hose
Tube connected to the tractor’s hydraulic coupler that uses a fluid (oil) to transmit power from the engine to the device’s mechanisms.

draw bar hitch
Device that secures the tandem disc harrow to the tractor’s towing hitch.
manure spreader
Device for scattering a mixture of litter and fermented animal waste over the soil to fertilize it.

beater
Rotating device that disperses manure over the soil.

box
Container that holds the manure.

frame
Trailer's metal structure.

jack stand
Telescopic support for the draw bar hitch that supports the trailer when stationary.

hydraulic hose
Tube connected to the tractor's hydraulic coupler that uses a fluid (oil) to transmit power from the engine to the device's mechanisms.

draw bar hitch
Device that secures the manure spreader to the tractor's towing hitch.

chain drive
Belt that transmits the rotational movement of the power-takeoff shaft to the moving floor of the trailer to bring the manure back to the beater.

power-takeoff shaft
Device that hitchs the machine's shaft to the tractor's power train to transmit the necessary power to operate it.
**cultivator**
Device with tines for working the top layer of the soil; it usually completes the plowing operation.

**frame**
Cultivator's metal structure.

**rotary hoe**
Device whose mechanism is powered by the towing action of the tractor; it is made up of blades that aerate and level the field.

**tine**
Curved prong that digs into the soil to work it by moving it sideways.
**flail mower**
Device that cuts the forage stalks as it moves and prepares them for the next harvesting phase (drying on the field and collection).

**cutter bar**
Unit that consists of a metal blade with beveled sections and is of adjustable height; it is used to cut the crop stalks while moving.

**crushing roll**
One of two cylinders that crush and bend the stalks as they are fed between them; the crop is then deposited in a row on the ground.

**pickup reel**
Unit that bends the stalks toward the crushing roll.

**tooth**
Curved tip for picking up the cut stalks.

**tow bar**
Metal part with a draw bar hitch head that secures the flail mower to a tractor.

**hydraulic hose**
Tube connected to the tractor’s hydraulic coupler that uses a fluid (oil) to transmit power from the engine to the device’s mechanisms.

**draw bar hitch head**
Device that secures the flail mower to the tractor’s towing hitch.
rake
Device for turning over hay.

height adjustment
Crank for adjusting the height of the rake bar.

frame
Metal structure of the rake.

rake bar
Metal structure that supports the teeth, which lift and turn over the hay.

tooth
Curved prong whose tip scrapes the ground to lift the hay.
hay baler
Device that harvests the forage and compresses it into bales.

plungerhead
Mechanical device that pushes the hay or straw into the press chamber by squeezing it forcibly.

press chamber
Device that shapes the bales of hay or straw.

binder
Device that ties the bales of hay or straw using string or wire.

draw bar hitch head
Device that secures the hay baler to the tractor's towing hitch.

tow bar
Metal part consisting of a towing hitch that connects the hay baler to the tractor.

power-takeoff shaft
Device that hitchs the machine's shaft to the tractor's power train to transmit the necessary power to operate it.

pickup cylinder
Rotating unit that picks up the cut grass (such as straw or forage) to convey it to the plungerhead.
**wagon**
Trailer for transporting the harvested forage.

**spout**
Device that forces the chopped forage into the wagon.

**rotating auger**
Threaded shaft that drives the forage into the mincer and then to the spout.

**power-takeoff shaft**
Device that hitches the machine’s shaft to the tractor’s power train to transmit the necessary power to operate it.

**tow bar**
Metal part consisting of a draw bar hitch head that connects the forage harvester to the tractor.

**draw bar hitch head**
Device that secures the forage harvester to the tractor’s towing hitch.

**tooth**
Curved prong that picks up the forage from the ground.

**pickup cylinder**
Rotating unit that gathers the forage, which is then chopped and blown into the wagon.

**forage harvester**
Device that harvests herbage (such as alfalfa, clover and corn) for feeding livestock.
**seed drill**
Farming tool that spreads and plows seeds into the soil following straight lines (furrows).

**hopper**
Container that is usually shaped like an inverted pyramid; it holds the seeds to be sown.

**chain drive**
Distribution unit that regulates the flow of seeds into the grain tube.

**grain tube**
Tube through which the seeds flow from the bottom of the hopper to be dropped into the furrow.

**disk spacing lever**
Lever for changing the distance between the sowing lines.

**covering disk**
One of a pair of circular parts that work together to close up the furrow.

**press wheel**
Wheel that tamps the earth to plow the seeds down to a certain depth.

**colter**
Round part that cuts the furrow slice vertically.
forage blower
Farm machine that forces the harvested forage (e.g., grass, wheat and corn) into the silo.

ensiling tube
Duct through which the forage is blown into the silo.

fan’s tube
Duct through which the forage is blown toward the ensiling tube.

fan
Machine that produces airflow to force the forage through the ensiling tube and onto the silo.

maneuvering bar
Rod for adjusting the blower to the desired position.

feed table
Rotating plate that moves the forage into the fan.

hopper
Container that holds harvested forage coming from a trailer, truck or ensiling trailer.
**combine harvester**
Vehicle that harvests seed crops, usually grain; it cuts, threshes and separates the seeds from the chaff.

**feeding tube**
Usually rotating unit that regulates the flow of the harvested crop arriving at the thresher, which separates the grain from the chaff.

**rotating auger**
Double rotating worm that gathers the harvest to the center of the header, where it is conveyed to the feeding tube.

**divider**
Unit at the end of the cutter bar that separates the furrow meant to be cut from the others.

**bat**
Toothed bar that rotates on the pickup reel's transverse axle.

**tooth**
Prong on the bat that causes the crop stalks to fall.

**pickup reel**
Rotating unit underneath the cutter bar that draws the stalks into the rotating auger.

**cutter bar**
Unit that consists of a metal blade with beveled sections and is of adjustable height; it is used to cut the crop stalks while moving.

**cab**
Compartment from which the driver operates the combine harvester.

**agricultural machinery**
AGRICULTURE
grain tank
Container that temporarily stores harvested grain.

unloading tube
Duct through which the grain is transferred from the tank to a trailer.

straw spreader
Propeller device that spreads hay from the back of the harvester the width of the cut to facilitate plowing the hay under the soil.

header
Trough usually made of sheet metal into which the cut crop is conveyed; from there it is sent through the feeding tube to the thresher.

motor
Device converting the combustion of fuel and air into mechanical energy.
Material made from plant fibers (generally wood) reduced to pulp, then stretched and dried into sheets. Some paper is also made from recycled fibers.

- **debarking**
  Procedure that consists of removing the bark from the trunk using a machine called a debarker.

- **chips**
  Small parcels of wood used to make paper pulp. The chips are often made in a sawmill then sent to the pulp plant.

- **mechanical pulping**
  Fractioning of woodchips into fibers or bundles of fibers, usually by grinding. The pulp obtained is often used for newsprint.

- **chemical pulping**
  Cooking of woodchips in a solution containing chemical additives that dissolve the lignin. The pulp obtained makes whiter paper.

- **deinking**
  Process that consists of eliminating inks or finishes from old paper in order to recycle it.

- **bleaching**
  Chemical procedure used to dissolve or eliminate more lignin in order to increase the whiteness of the pulp.

- **dehydration**
  Procedure consisting of withdrawing most of the water from the pulp in order to make easily transportable blocks.

- **mixing**
  Action of adding various products to the pulp (colorants, for example) depending on the type of paper wanted.
**dilution**
The adding of water to the block of dehydrated pulp to obtain a homogeneous pulp.

**paper machine**
Machine designed to make a sheet of paper from a fibrous suspension by dewatering, pressing, and drying.

**forming fabric**
Porous rotating screen that dewater the pulp.

**cutting**
Division of bobbins into smaller bobbins, then into sheets of different formats.

**ream**
Block of 500 sheets of the same format, ready to be shipped.
rubber

Elastic, waterproof, strong fabric, made from latex extracted from a tropical tree (hevea).

incision
Cut made in the bark of the tree, through which the latex flows out.

latex
Milky substance secreted by certain plants, which is used to make natural rubber.

cup
Container that collects the latex.

ball
Sphere filled with air, often made of rubber, used in a number of sports (football, basketball, volleyball, etc.).

tire
Circular deformable unit made of rubber, mounted on the wheel and inflated with air, providing the connection between the motorcycle and the road, absorbing the unevenness of the road.
Adapted from the famous *Visual Dictionary*, an international bestseller with more than 8 million copies sold, this new series of thematic and ultracompact books provides readers with a multitude of words and concepts that are encountered in everyday life.

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Convenient and affordable, this book is an ideal reference tool to get useful information on vegetables and their culture!