

Chapter 1 : A Dictionary of Botanical Terms: A. A. (Arthur Alger) Crozier: blog.quintoapp.com: Books

This glossary of botanical terms is a list of terms relevant to botany and plants in general. Terms of plant morphology are included here as well as at the related Glossary of plant morphology and Glossary of leaf morphology.

Organizational Members Terminology Understanding terms or words commonly used in herbal literature provides a basic foundation for people new to herbs and reinforces the basics for those with some experience with herbal medicine. Lists the basic theory or school of thought underlying healthcare systems throughout the world. Some systems include herbal medicine as an approach. Lists a few approaches applied to various healthcare systems that use medicinal plants or plant-derived preparations. Lists some common terms used when discussing or learning about herbal medicine. Lists the crude drug or phytopharmaceutical names that describe the part of the plant that is used in the herbal preparation. This name is not always synonymous with the botanical description of that plant part. Describes various plant preparations used to make herbal products both at home and for the marketplace. Lists words with medicinal actions or that are referred to in medicine in order to provide a better understanding of the proper use of the herbs and under what conditions they might be employed. Also known as "conventional medicine" in Western societies. Allopathy focuses on treating the symptoms of diseases primarily through prescription drugs. This approach utilizes a process of reductionism focusing on the symptoms exhibited in a part of the organism rather than focusing on the organism as a whole. Literally meaning the "science of life. A system of medicine founded in the late 18th century in which remedies consist of diluted substances from plants, minerals and animals. It is based on a theory that "like cures like. Indigenous or Tribal Medicine: A healthcare system that tends to incorporate various methods of botanical and animal medicines as well as specific ceremonial rituals of the culture to cure disease. The medicinal knowledge is passed from generation to generation primarily through oral traditions. The system tends to be unique to each tribe. A 3,year-old holistic system of medicine combining the use of medicinal herbs, acupuncture, food therapy, massage, and therapeutic exercise. Chinese physicians look for the underlying causes of imbalance in the "yin" and "yang" which lead to disharmony in the "qi" energy in the body. Traditional Chinese Medicine addresses how illness manifests itself in a patient and treats the patient, not the ailment or disease. This approach uses essential oils extracted from medicinal plants to treat various health conditions. The oils are generally diluted, then used topically, internally, or to stimulate olfactory senses. In the s, Dr. Edward Bach developed an approach to healing using "flower essences. The essences are used internally or topically to balance emotional states. The underlying philosophy focuses on stabilizing emotions in order to dissipate illness and stimulate internal healing processes. An approach to healing which uses plant or plant-derived preparations to treat, prevent, or cure various health conditions and ailments. This approach is incorporated into various medical systems. Despite the extensive use which can be attributed to the use of plants in traditional medical systems, our knowledge of the plants and their values remain largely unexplored. The two-part scientific Latin name used to identify plants. The first name is the genus and is a general name that may be shared by a number of related plants. The second is the species name, which refers to the name that is specific to that individual plant i. Natural products, which are not pure compounds i. The word herb sometimes referred to as botanical has several different meanings depending on the perspective: In commercial terms - herb generally refers to plants used for culinary purposes. Additionally the terminology differentiates Temperate Zone plants from tropical and sub-tropical plants i. In horticultural terms - herb refers to "herbaceous," which describes the appearance of the plant i. In taxonomic terms - herb generally refers to the aboveground parts or the aerial parts i. In terms of herbal medicine - herb refers to plants used in various forms or preparations, valued for their therapeutic benefits, and sold as dietary supplements in the U. The study of natural products i. Derived from the Greek pharmakon meaning drug and gnosis meaning knowledge. The chemicals are often referred to as "secondary metabolites" of which there are several classes including alkaloids, anthraquinones, coumarins, fats, flavonoids, glycosides, gums, iridoids, mucilages, phenols, phytoestrogens, tannins, terpenes, and terpenoids, to mention a few. Extracts contain many chemical constituents, while chemicals that have been isolated from the plant are considered pharmaceutical drugs i.

Medicinal substances that originate from plants. This may include certain phytochemicals as well as whole plants or herbal preparations. A type of phytochemical with some influence on the estrogenic activity or hormonal system in humans. This rather broad term does not mean that the plant mimics human estrogen, only acts to affect it in some way. Refers to the essential or volatile oil as a distinct aromatic product obtained from the plant. Refers to a solution of resin and volatile oil usually produced by special cells in some plants. Refers to the bulb or an underground bud specialized stem structure of a plant, from which both a shoot and roots may extend. Refers to the bark of the plant. Bark can be collected from the root, stem, or branches. Refers to the flowers of plant usually consisting of a single flower or the entire inflorescences i. Refers to the leaf of plant. Usually the middle leaves of plants are collected. Refers to the fruit the ripened ovary of the flower-bearing seeds or berry of the plant. In pharmacognosy, fructus is not always synonymous with the botanical definition. Refers to the aerial parts or the aboveground parts of plants which may include the flower, leaf, and the stem of the plant, and occasionally fruits too. Refers to the wood or the secondary thickening of the stem. This may or may not contain the bark as well. Refers to the fixed oil preparation pressed or squeezed from the plant material. Refers to the peel or rind of fruit. Refers to the tar from dry distilled plant material. Refers to the root of a plant, though radix is sometimes synonymous with rhizome Resina: Refers to the resin that is secreted by the plant or by distillation of the balsamum. Refers to the rhizome or a creeping horizontal stem, generally bearing roots on its underside. Refers to the seed of a plant, usually removed from the fruit, and may or may not contain the seed coat. A tea made from boiling plant material, usually the bark, rhizomes, roots or other woody parts, in water. May be used therapeutically. Natural dyes are often made this way. A tea made by pouring water over plant material usually dried flowers, fruit, leaves, and other parts, though fresh plant material may also be used, then allowed to steep. The water is usually boiling, but cold infusions are also an option. May be used therapeutically, as hot tea is an excellent way to administer herbs. An extract of a plant made by soaking herbs in a dark place with a desired amount of either glycerine, alcohol, or vinegar for two to six weeks. The liquid is strained from the plant material and then may be used therapeutically. Extract of a plant added to either alcohol or vinegar and applied topically to employ the therapeutic benefits. A therapeutic topical application of a soft moist mass of plant material such as bruised fresh herbs, usually wrapped in a fine woven cloth. Aromatic volatile oils extracted from the leaves, stems, flowers, and other parts of plants. Therapeutic use generally includes dilution of the highly concentrated oil. A process of extraction in which the volatile oils of a plant substance are obtained by soaking the plant in a carrier oil for approximately two weeks and then straining the oil. A process to extract the soluble constituents of a plant with the assistance of gravity. The material is moistened and evenly packed into a tall, slightly conical vessel; the liquid menstruum is then poured onto the material and allowed to steep for a certain length of time. A small opening is then made in the bottom, which allows the extract to slowly flow out of the vessel. The remaining plant material the marc may be discarded. Many tinctures and liquid extracts are prepared this way.

Chapter 2 : A Dictionary of Botanical Terms

glossary, originally published as a single volume in but drawing on contributions he made earlier to issues of The Botanist and Maund's Botanic Garden, is a testament to Henslow's scholarship.

A collective term for all the stamens and any closely associated structures in a flower. The pollen-producing portion of the stamen typically borne at the tip of a stalk or filament. The portion of a plant structure such as a leaf, bud, stem, etc. The outer portion of a cone scale which is exposed when the cone is closed. Any kind of sharp defense such as thorns, spines, or prickles. Foliage with a soapy or medicinal aroma because of the presence of saponins and other chemicals. A slender, more or less straight and stiff, fine-pointed appendage; may be located at the tip of a leaf or bract and a continuation of the midvein, or comprising the pappus in fruits of the sunflower family Asteraceae. The point of the upper angle formed between the axis of a stem and any part usually a leaf arising from it. Return to Top of Botanical Terms. The outermost layer of a woody stem, usually with one or more corky layers that prevent water loss and protect the inner living tissues from mechanical damage. This is a pointed slender appendage that defines the outer tip of a seedpod; the seedpods of many plant species lack beaks. Sedges , this term has a different meaning. The perigynium of a Carex sp. A structure that is divided into two parts along some portion of its length. This often refers to petals that are deeply notched at their tips, as occurs in the flowers of Stellaria spp. Chickweeds and Cerastium spp. A simple leaf or leaflet that is pinnatifid with lobes along its side margins; these lobes are also pinnatifid with secondary lobes along their margins. Some species of ferns have bipinnatifid leaves; the lobes of such leaves are often cleft. The flat, expanded portion of a leaf, petal, sepal, etc. A modified, usually reduced leaf, often occurring at the base of a flower or inflorescence. A division or subdivision of a stem or other axis. An ultimate branch, i. An immature shoot, either vegetative, floral or both, and often covered by protective scales. Bulbets Small bulbs that are produced underground or above ground as an alternative to seeds. Above ground bulbs are produced in the inflorescence and are called "aerial bulbets. Bulrushes A common name that refers to species in the genus Scirpus. Bulrushes are members of the Cyperaceae Sedge family , they are actually sedges, notwithstanding the common name. A small scar within a leaf scar left by a vascular bundle that previously entered the stalk petiole or base of the fallen leaf. Cool-season plants use a C3 metabolism to convert sunlight into carbohydrates using chlorophyll. They often grow best during the spring or fall when the weather is cool and moist. Most forbs and some grasses and sedges have a C3 metabolism. The chemical pathway of C3 metabolism is slightly different from that of C4 metabolism see the description below. Warm-season plants use a C4 metabolism to convert sunlight into carbohydrates using chlorophyll. These plants often grow best during the summer when the weather is warm and somewhat dry. Some grasses and most Cyperus spp. Flat Sedges have a C4 metabolism. The chemical pathway of C4 metabolism is slightly different from that of C3 metabolism see the description above. The collective term for all of the sepals of a flower; the outer perianth whorl. Crassulacean Acid Metabolism Canescent: The basic ovule-bearing unit of flowers, thought to be evolutionarily derived from an infolded leaf-like structure; equivalent to a simple pistil or a division of a compound pistil. This is a spheroid enlargement at the base of a plant that is usually below the surface of the soil in herbaceous plants. A caudex is woody and functions as a storage organ for nutrients and water. One or more stems develop from the top of a caudex, while coarse roots radiate below. See line drawing of a Caudex. This expression usually refers to the central stalk of an inflorescence that is a spike, raceme, or panicle. Sometimes it refers to the central stalk or rachis of a compound leaf. The leaf is sharply divided into lobes; it may be pinnately or palmately cleft. The ends of the lobes are often pointed, rather than rounded. See line drawing of Cleft shape. A flowerhead consisting of numerous small florets. The florets are held together by floral bracts surrounding the base of the flower. An ovary formed by the fusion of the bases of two or more carpels; recognizable by the presence of more than one area of placentation, locule, ovary lobe, style or style branch , or stigma. Cone-bearing plants, such as pines Pinus. The collective term for all of the petals of a flower; the inner perianth whorl. A cup-like structure at the base of some fruits, such as the acorns of oaks Quercus , composed of a persistent, usually dried, whorl of bracts involucre or other sterile floral parts, that

are often partially fused. In the form of a simple or compound cyme; bearing cymes. Compare with evergreen and semi-evergreen. Splitting or forming one or more openings in a regular pattern at maturity enabling the contents to be released for dispersal, as certain fruits, such as capsules, that split open when ripe releasing seeds. An inflorescence in which the terminal or central flower opens first, halting further elongation of the main axis, as in cymes. The length of time that a plant or any of its component parts exists. The outermost layer of cells of leaves, young stems and roots. The stalk of a stamen, which supports an anther at its tip. A compound flower often has floral bracts that circumscribe its base, particularly among members of the Asteraceae Aster family. These scale-like bracts surround the ovaries of the flower and they are often appressed together. A very small, structurally specialized flower, especially those of the grasses Poaceae and the sunflower family Asteraceae. In contrast, grasses Poaceae, sedges Cyperaceae, and miscellaneous other plants are not forbs because their wind-pollinated flowers lack petals and sepals, or their petals and sepals are tiny and inconspicuous. Such wind-pollinated flowers are not very showy, although there are some exceptions. The seed-bearing structure in flowering plants, consisting of one or more matured or ripened pistils, along with any persisting accessory parts such as sepals or receptacle. A corolla that is shaped like a funnel, being narrow and tubular at the base, but flaring outward toward the outer margin. The corollas of *Ipomoea* spp. Morning Glories and *Calystegia* spp. The physical connection of equivalent or dissimilar structures, as fused sepals or petals. In pairs, as a leaf which is divided into two leaflets. The beginning or resumption of growth by a seed, bud or other structure. Lustrous or shiny, as the upper surface of southern magnolia *Magnolia grandiflora* leaves. Gluey, sticky or gummy; covered with sticky exudates. A grain is a seed with a hard coat. It typically refers to the seeds of grasses Poaceae. Sometimes this term refers to a particle of pollen e. Members of the Poaceae Grass family are true grasses. This refers to a spikelet that has pistillate female flowers above the staminate male flowers. The general appearance, characteristic form, or mode of growth of a plant. Erect columnar structures on the upper part of a Milkweed flower in the Asclepiadaceae. A slender horn-like structure inside or adjacent to the hood of a Milkweed flower in the Asclepiadaceae. The horns are straight or curved, and usually shorter than the hoods. The flowers of some Milkweed species lack horns. Not splitting or forming an opening at maturity, the contents being released for dispersal only after decay, digestion or erosion of the structure, as certain fruits, such as achenes and berries, that retain their seeds when ripe. An inflorescence in which the lowermost or outermost flower opens first, with the main axis often elongating as the flowers develop, as in racemes. The location of points of attachment of a structure e. The portion of a stem between two nodes, i. A whorl of bracts subtending a flower or flower cluster. Compare with plane and revolute. A longitudinal ridge, more or less triangular in cross section, like the keel of a boat. A lateral outgrowth of a stem, usually green and photosynthetic, and often consisting of a stalk petiole and an expanded portion blade; leaves may also be needle-like or scale-like in form. The division or not of a leaf into distinctly separate segments or leaflets; whether a leaf is simple or compound. The position of leaves as defined by the relative location of their points of attachment on the stem e. The scar remaining on a twig at the former place of attachment of a leaf, after the leaf has fallen. The visible pattern of veins on a leaf. One of the separate, leaf-like segments of a compound leaf.

Chapter 3 : The Ash Tree: Glossary of Botanical Terms

Glossary of Botanical Terms. Sourced from the following Western Australian Herbarium publications: Flora of the Perth Region, Parts I and II (), Flora of the Kimberley () and The Western Australian Flora - A Descriptive Catalogue ().

Back to Home The most important thing to remember when using this or any other glossary is that just because some aspect of an organism is dignified by a sesquipedalian term, this by no means signifies that the term refers to an interesting part of "reality". As Hesse et al. Humans make and define botanical terms, and we use them to facilitate communication, although all too often they seem to be as much an impediment to our understanding as anything else. This raises a second important point. As mentioned in the Introduction, definitions should as far as possible follow current usage, rather than etymology or original definitions see, e. However, current usage is all too often not consistent, and this is one of the major failings of botanical terminology. As Rickett p. Yet this is the state of affairs in botany today". Over forty years later, this is still true see e. With any glossary, there is always the question of what to include and what to exclude. We list those terms used in these pages, some of their common synonyms, and also some other terms commonly used in the literature that has been consulted. When there are alternative terms for the one structure, we have chosen the term that seems easiest to use or makes most obvious sense, thus we have preferred "straight" over "orthotropous", since the latter seems almost an oxymoron even "atropous" would be better There will always be tensions when it comes to terms used to describe specific features of the sporophytic and gametophytic generations. Thus "nucellus" is preferred over "megasporangium wall", although the latter is technically what a nucellus is, and "embryo sac" over "female gametophyte" since the former term is almost always used in the literature dealing with flowering plants. The definitions agree as far as possible with those in the Plant Ontology Consortium onwards. Settling on definitions is often not easy. Thus there is some dispute among wood anatomists over exactly what terms to use and how to define them c. Other terms have definitions that can be distinguished only with difficulty, or there are alternative sets of terms that can be used when looking at the same structures, but from different points of view e. Finally, it should not be assumed that the terms below refer to anything real in the world, even when assembled into clean-looking contrast sets see the Introduction for more discussion. Since the focus is on terms used when discussing the characters of and relationships between major clades, many of the terms used when describing species are omitted. However, Stearn remains a particularly useful source for definitions here. The basic arrangement is alphabetical, however, terms that start with contractions like P-protein, CAM, etc. Prefixes and suffixes are to be found at the appropriate places within the entries for their first letters The glossary functions hierarchically, and to a certain extent it is like an ontology. If in an entry, one finds "see", this is followed by an enumeration of the terms used in to describe the variants of the structure just described. Thus under accessory buds, one finds "see collateral , superposed ", and there are links to these two terms that describe common variants in the arrangement of such buds. Thus after the definition of abaxial, we find "c. However, a few terms are included in contrast sets simply because that is common practice, even if logically they should be excluded. Thus an entry like " amphiparacytic: Some synonymy is indicated, e. Informative general morphological glossaries or other sources are Lawrence , Esau , , glossary here particularly useful , Radford et al. Metcalfe and Chalk , also provide much useful information. Chemical formulae and definitions have been taken from American Chemical Society , Harborne and Turner , Harborne and Baxter , Harborne et al. For wood anatomy, see Wheeler et al. Appendix 1 , for leaf architecture in general, see Ellis et al. For variation of the characters defined in the glossary in seed plants, see the "Characters" page. We built this glossary using the excellent Flora of Australia Online Glossary as our inspiration. We are very grateful to to the Australian Biological Resources Study and also to the artists who drew the illustrations for some of the terms in that glossary for permission to use the Glossary. Selected links to illustrations in the Flora of Australia Online Glossary are included here indicated by ; the illustrators of these images are indicated on the images themselves. Gregor Hagedorn and Volker Bittrich in particular have provided useful comments. Acetate, C₂ H₃ O₂. Acetogenin-G, C₁₉ H₂₂ O₃.

Chapter 4 : Glossary of Botanical Terms - Southeast Exotic Pest Plant Council Invasive Plant Manual

Medicinal Plants of Bangladesh. Medicinal Plants Database of Bangladesh includes the authentic Taxonomic Information, Vernacular/Bangla Name, Tribal and English Name, Family, Description and Photograph of the Plants, Chemical Constituents, Uses and Distribution of the species in Bangladesh.

Morphological terms are a subset of botanical terms so the Botanical Glossary would be the parent article. There cannot be too many. I prefer anatomical drawings of "ideal" or generalized forms over pictures. If you are an illustrator, it would be good practice to draw your favorite terms, and upload them at WP: PPdd talk Botany vs. And why is it important? Using botany is in keeping with pretty much every glossary of scientific terms on the system, and with WP: AT generally use the noun of the topic, redirect from modifications. Botanical is also ambiguous "of plants", "derived from plants", "focused on plants", "having something to do with plants", "of the science of botany", etc. Botany has no such ambiguity. I have no bone to pick about this, just going for consistency and lack of confusability. Nor would you generally see terms related to life histories, pollination syndromes, evolution, development, seed dispersal, or anything from the world of vegetation ecology. Nor would you see purely fungal terminology, despite the fact that historically mycology and microbiology were outgrowths of botany and are still covered in introductory botany courses and textbooks. All of these sections are able to attract substantial membership. The February issue is a special issue on next-generation sequencing , so it lacks the diversity, but still does a good job of illustrating the fact that "botany" is far, far broader than the content of this list. The list covers botanical terminology, a respectable field of knowledge. Given that there is clear dissent, I think it would be reasonable to undo the move pending a fuller discussion, per WP: Why is "term" in there? A decent choice for a redirect, though First Light talk My search, 1 2 was similar. The "botany" search though is limited to things like the Master Gardener training program, a "Glossary of Botany Terms Relevant to Pastures", and a site to help in high school biology homework. As for "botany" vs. The existing article titles strongly suggest a consistent pattern of using the name of the field as a noun instead of the sometimes ambiguous adjective version. The "child speak" jab works both ways. We only document and move on. So trying trying to impose one rigid naming convention on such diverse topics as botany and astronomy in a nonsensical language like English will never work. All other style considerations border on worthless, including trying to match what reliable sources in a field do in publications in that field, which are not encyclopedias. Reliable sources on facts about plants are not reliable sources on English language writing style for a general audience, even if plants are involved. Like many home gardeners in my part of the world, I view the Sunset Western Garden Book as the bible for the most amateur of gardeners. It is sold at every Home Depot , Walmart , and hardware store in the west. It is probably the most popular gardening book ever sold, in the entire world. It is written for non-specialistsâ€™ in fact for the person who has never put a plant in the ground before. In every place it uses the phrases, it only uses "botanical terminology" and "botanical terms". Never "botany terminology" or "botany terms. It is arguably a needed article, so it has a good chance of being accepted by the greater community, but the details of the Naming Conventions section could easily go unnoticed as causing these types of problems. AT policy calling for the same thing, I might add - articles are almost always at the base noun, e. Botany , with redirects from modifications, e. If editors here want a WP: No need to go try to change a long-stable guideline proposal to use a new naming convention pattern that defies WP: AT and general usage see Category: IAR exists for a reason; call this page whatever you want. You really said that?? GLOSS is irrelevant, as that is not an accepted guideline; it is merely your personal opinion written by you. It is no different than a personal sandbox page. AT the preference for nouns is only for titles not covered by the five principles, one of which says that "titles usually convey what the subject is actually called in English. This is done by consensus". This is not WP: Additionally, in labeling us "specialists" with your link at Specialist style fallacy another irrelevant opinion piece written by you, not a WP guideline , you are twisting the real intent of WP: We are arguing for the common name usage in all of English, not just specialized to one one field. Your article title is not a common name in any respect. Your claim of no adjectival examples at Category: Glossaries of science is rather similar

to a fib, since at least two of them have been changed this week away from their adjectival titles, Glossary of geological terms and Glossary of botanical terms , in this same mad rush by you and Allen to standardize glossary titles without consensus or discussion. Both of these terms highlight why it would be impractical to force a rigid glossary naming convention in this respect. GLOSS as an actual guideline. You can comment on it there. Have a cup of WP: Anyone whose blood pressure is raising about this non-issue needs to take a walk. No one is telling you to change it. All this increasingly personalized and hostile invective, like calling me a liar, was and remains entirely unnecessary. MOS pointedly eschew specialist practices all the time. Doing what most people expect instead of what specialists in this narrow field or that are used to is one of the principal reasons that naming policy and that style guide exist; it keeps WP from turning into Geekipedia. AT is actually very, very specific about this: Th[e] practice of using specialized names is often controversial, and should not be adopted unless it produces clear benefits Citing what one popular source does is anecdotal, and orthogonal to the issue of how WP should name articles anyway. And who says the Sunset book is the "gardening bible"? What about The A-Z Encyclopedia of Garden Plants at pages on my bookshelf, sagging under the combined weight of it and the page Botanica: Assumptions of non-project-member ignorance are a very, very poor idea. Being a gardener expecting that WP will do what gardening books do in every way, any time WP happens to talk about plants, is precisely what WP: AT policy, so take your complaints there. MOS should be retracted. GLOSS is not irrelevant. Various glossary articles already have been following it to the letter for a long time. That I incidentally happen to be the primary author of it makes neither its reasoning nor my arguments magically weaker. I never claimed anything in WP: I never claimed WP: I never claimed that WP: AT use "specialized" in the same way. If I missed the fact that a whopping two comparable articles had similar names, then mea culpa, I made a mistake. AT better and is less ambiguous. Unless someone summons me back here with a talkback, I have nothing further to say and may still not even if you do; I grow weary of circular argumentation from biology project, and I say that as a member of biology projects. Congratulations on making a pointless, lava-spewing volcano out of a molehill. Having a cup of WP: TEA is good advice. The most relevant of the many issues above is the meaning of "specialist" at WP: AT you misunderstood before, I meant that WP: SSF was irrelevant since you penned it, not that I necessarily had any problem with its use of "specialist". In context, it is advocating common names over specialist names, it is not advocating consistent conventions over specialist names. This is very important: While we did include some specific notable examples, we also looked at the whole range of all usage of "Glossary of botanical terms"; the evidence was overwhelming for a common name. AT directly addressed this issue of a common name vs. Here is the context: Sometimes these recommend the use of titles that are not strictly the common name as in the case of the conventions for flora and medicine. This practice of using specialized names is often controversial, and should not be adopted unless it produces clear benefits outweighing the use of common names" Can you see from the context who is the specialist in our discussion? The only specialist here is the glossary specialist that wants to rigidly impose non-common article names over the top of the way they are commonly said by common people. No one else has edited the naming section of your proposed guideline, no one has discussed it or even commented on it English is at one end of the continuum in Indo-European languages allowing nouns to modify other nouns. Every time I start to think that SMcCandlish has useful ideas about stylistic issues, he comes up with something to dissuade me. Why not just change it to "plant biology terms" so everyone will be unhappy?

Chapter 5 : Jason Hollinger: Botany: Plant Latin Dictionary

Botanical Terms (If you are unable to find the term you are looking for, or wish to see illustrations of particular botanical characteristics, I recommend Plant Identification Terminology by James G. Harris and Melinda Woolf Harris, from which many of these definitions have been taken).

Rod shaped, spore-producing bacteria belonging to the genus *Bacillus*. Cross between a hybrid and one of its parents. Single celled, omnipresent organisms appearing in spiral, spherical or rod shape. Tissues of the vascular cambium forming tough layer on the outer region of the woody stems and roots. Substances that reduce the concentration of hydrogen ions. Fruiting body in basidiomycete fungi, such as puffball or mushroom. Spores formed on the basidium. The cells in basidiomycete fungi in which fusion of nuclei and meiosis occur to produce basidiospores. Simple, thin-skinned fruit comprising a compound ovary with more than one seed, as in the case of gooseberry, grape, tomato, etc. Plants requiring two seasons to complete their life cycle. The first season growth is purely vegetative and the second one bears fruit. Process of cell division in prokaryotes, such as yeasts where the cell divides into two daughter cells. System of classification that provides scientific names to organisms. Each name consists of a genus name and a species name. Use of natural inhibitors or enemies to combat pests and other damage causing organisms. Use of living organisms, tissue or cells for the manufacture of drugs or products intended for human benefit. The broad, flattened, conspicuous part of the leaf called lamina that is distinguished from the petiole or stalk. Leaf like structure situated at the base of the flower or inflorescence. Phylum comprising non-vascular plants: Mosses, liverworts, etc are bryophytes. Type of asexual reproduction involving formation of new cells from protrusions arising from mature cells. Yeast reproduces via budding. Layer of parenchyma or sclerenchyma cells encircling the vascular bundle in plant leaves and stems. Tissue formed over damaged areas of the plant in the form of a seal, thereby protecting it from further deterioration, and allowing the wound to heal. Biochemical reactions cycle occurring during photosynthesis in the chloroplasts, wherein carbon dioxide is fixed and 6 carbon sugar is formed. Small sheath of cells found in non-vascular plants, derived from the archegonium to cover the tip of the capsule partially or completely. Collective terminology for the sepals of a flower. Layer of meristematic tissue also known as lateral meristems, responsible for secondary growth. Water held in the tiny pores between soil particles by the adhesive force: Dry, dehiscent fruit consisting of two or more carpels that splits in several ways at maturity to release seeds. Single member of a compound pistil or single pistil unit, bearing the ovule in angiosperms. Small, dry, single seeded fruits which do not split at maturity. The pericarp cleaves to the seed coat; typically seen in grains. Band of cell wall material in the radial and transverse walls of the endodermis. It stops the passive flow of materials into the stele. Replacement of an essential element cation released from a soil particle by a proton. The rupture of the water column in the xylem, when tension surmounts the cohesive nature of water. Microscopic structure forming the basic structural and functional unit of living organisms. It encompasses nuclear and cytoplasmic material enclosed by a cell membrane. Branch of biology involving the study of cells, their structure, formation, components and functions. Sequence of events occurring during cell division. Process of division of cell with the purpose of growth or reproduction. The semipermeable membrane sheathing cytoplasmic material of the cell. During cell division, the plate formed at the midpoint between two sets of chromosomes, which is involved in the wall formation between two daughter cells. Fluid present in the central vacuole of plant cells. The rigid boundary forming the outer structure of plant cells. A complex carbohydrate composed of glucose units, which forms the major constituent of cell wall in plant cells. Mostly two in number nuclei uniting with sperm to form primary endosperm nucleus in embryo sac. It is a membrane enclosed organelle of eukaryotic cells that contains its genetic material in the form of chromosomes. Small, cylindrical cell organelles found in animals and some algae and fungi. Located near the nucleus in the cytoplasm of most eukaryotic cells each centriole is usually composed of nine triplets of microtubules. Portion of the chromosome holding the two chromatids together before anaphase stage of mitosis or anaphase II stage of meiosis. The spindle fibers are attached to this region and move the chromosomes during cell division. Chemosynthetic Origin of Life: Theory according

to which life began via a series of chemical reactions on primitive Earth. X-shaped structure formed by the attachment of two chromatids of homologous chromosomes to each other during meiosis. Polymer composed of partly amino sugars, it is a semitransparent hard substance forming the outer covering or exoskeleton of crustaceans, arachnids and insects. Parenchyma tissues with chlorophyll content. Green pigment found in plants, cyanobacteria and algae, which is involved in capturing light energy required for photosynthesis. Plastids opulent in chlorophyll content that carry out photosynthesis. Process of yellowing of leaves, occurring due to lack of chlorophyll. One of the two identical chromosome strands united by a centromere into which the chromosome longitudinally splits while preparing for cell division. Found in chromosomes, chromatin is a readily staining substance of a cell nucleus containing DNA, RNA and other proteins that form chromosomes during cell division. Plastids containing pigments other than chlorophyll, usually imparting red or yellow color. Threadlike bodies made up of DNA coiled tightly several times around proteins called histones. Its structure consists of chromatids joined together at the centromere. Also called pachytene, this process is a part of prophase I, wherein the chromosomes become shorter and thicker. Precisely arranged, short microtubules found mostly in bunches, similar to a flagellum. These may either be sensory or locomotory organelles. A rhythmic daily activity cycle exhibited by many organisms in an intervals of 24 hours. In aerobic respiration, the complex series of reactions following glycolysis, which involve mitochondria, ATP and enzymes. Also called phylloclade, this is a flattened stem that looks like a leaf. In classification, the category coming between a division and order. Is another phrase used for Angiosperms that are plants with seeds inside the ovary. Triplet of adjacent nucleotides in messenger RNA, which specify the amino acid to be incorporated into a protein. Large cells containing myriad nuclei. It is formed when the cell nucleus divides multiple times without the actual division of the cell. Molecules providing transfer site for biochemical reactions catalyzed by enzymes. This theory explains that the upward pull of water takes place by the combination of water molecules cohesion in the vessels and tracheids and tension on the water column caused by transpiration. The first leaf above ground level forming a sheath around the tip of the stem, so as to protect the emerging shoot plumule of monocotyledons like grasses and oats. Sheath formed around the emerging radicle in plants of the monocotyledons like the grass family. Cells containing primary walls thickened at the cells corners, but thin elsewhere. Specialized parenchymal cells situated beside sieve tubes in the phloem of angiosperms that regulate flow of nutrients through the sieve tube. Combination of several dead and decaying organic substances, such as manure, dead leaves, etc. Leaf blade divided into distinct leaflets attached via a common petiole. Fungal spore formed outside a sporangium and produced asexually. Woody trees or shrubs that are gymnosperms and bear cones. Process of genetic exchange occurring in bacteria and some green algae, wherein the DNA is passed through a tube connecting adjacent cells. Outer tissue layer of an old woody stem produced by cork cambium, whose cells are saturated with suberin at maturity. Lateral meristematic tissue ring found in woody seed plants between the exterior of woody stems or roots and central vascular tissue. It produces cork to its exterior and phellogen to its interior. A thick food storing, vertically oriented stem enveloped by some papery nonfunctional leaves. Collective phrase used for the petals of a flower. Generally parenchyma cells forming a tissue extending between the vascular tissue and epidermis. A seed leaf or embryo leaf that usually absorbs or stores food. The exchange during prophase I in meiosis, between corresponding segments of chromatids of the homologous chromosomes. Asexual type of reproduction, involving the division of the base of the stem. Thin hyaline film derived from the exterior surfaces of epidermal cells, covering the surface of plants. Fatty or waxy substance making up the cuticle.

Chapter 6 : Terminology - American Botanical Council

So, here is the glossary of botanical terms and definitions with all the terms that normally 'crop' up during a detailed study of botany. A It is a cofactor contributing phosphate group or energy or both to the reaction.

Loosely, and incorrectly, applied to plants that are not terrestrial they may grown on various inorganic or organic surfaces , and often to orchids, which are rock-dwelling and therefore strictly lithophytic. See Author citation botany. Genus is the principal category of taxa intermediate in rank between family and species in the nomenclatural hierarchy. The nomenclature of graft hybrids is governed by the International Code of Nomenclature for Cultivated Plants. Also a building in which such collections are stored. An F1 hybrid is the primary product of such a cross. An F2 hybrid is a plant arising from a cross between two F1 hybrids or from the self-pollination of an F1 hybrid. It marks the transition from root to stem development. I illegitimate name nomen illegitimum: Malay peninsula and North Borneo. It is generally worldwide in scope and evaluates all taxonomic treatments of that taxon including studies of its evolutionary relationships with other related taxa, and cytological, genetic, morphological, palaeobotanical and ecological studies. The term is often incorrectly applied to any systematic work devoted to a single taxon. Latin a name which although, contrary to the rules of nomenclature usually a later synonym , must be adopted. Latin a name that is superfluous at its time of publication either because the taxon to which it was applied already has a name, or because the name has already been applied to another plant. Latin a name that is not valid. It can also refer to a name that is not validly published. Latin a name not published in accordance with the International Code of Botanical Nomenclature, usually without a diagnosis or description of the entity to which it applies, and without reference to either; such a name should not be used. Each state and territory in Australia has specific legislation governing noxious weeds. Stamens are described as numerous when there are more than twice as many as sepals or petals. A period of reduced activity between seasons is usual.

Chapter 7 : Glossary of botanical terms - Wikipedia

This meticulous glossary, originally published as a single volume in but drawing on contributions he made earlier to issues of The Botanist and Maund's Botanic Garden, is a testament to Henslow's scholarship.

Generally applies to flowers in which the perianth segments within each whorl are alike in size and shape; compare irregular, regular, zygomorphic. A plant produced in this way is an apomict. Also, moving from leaves to roots, e. For example, where the first is the name of the genus to which the species belongs, and the second is the epithet given to that species to distinguish it from others in the same genus. The second name is referred to botanically as the specific epithet. Note that the two names constitute the species name, not just the second word. See Sexual reproduction in plants. It is easily removed by rubbing. Technically a classification of plants including three classes: More extreme than an accrescent calyx, calycophylls are found in Rubiaceae. The gynoecium is the collective term for all the carpels of a single flower. Plants that persist only by new introductions; cf. Early leaf forms of plants or shoots, such as cotyledons, bud-scales, rhizome-scales; anatomically they are leaves, but do not develop to perform the usual functions of photosynthetic leaves. The individual flowers often have scaly bracts; they are generally wind-pollinated. The catkins are usually shed as a unit. In this structures, such as scales, this appearance is caused by thick cell walls between adjacent cells and thin cell walls on the sides of the cells that face the surfaces of the scale. The term generally applies to names such as Trademark Names, names covered by Plant Breeders Rights, Patents and Promotional Names; often used to enhance the sale of a plant. Adjectives derived from "corm" include "cormose" and "cormous". A term generally applied to the edges of leaves and petals. A cultivar may arise in cultivation or be introduced from the wild. It is a variant of horticultural interest or value. Cultivar names are written with single quotation marks around them e. All new names established after 1 January , must be in common language that is, not in Latin but names established in Latin prior to this date are retained in Latin form. Cultivars are designated by fancy q. Generally refers to the release of seed from some fruits; also pollen from anthers. Loosely, and incorrectly, applied to plants that are not terrestrial they may grown on various inorganic or organic surfaces , and often to orchids, which are rock-dwelling and therefore strictly lithophytic. See Author citation botany.

Chapter 8 : PlantNET - FloraOnline - Glossary

Page 1 of 29 Glossary of Botanical Terms Used in the OpenKey Project April 25, edited by Stephen M. Seiberling The terms defined here mostly correspond to character states and characters in the OpenKey.

Open Source Seed Initiative OSSI Since our founding, the Victory Seed Company has only offered seeds that were not only rare, open-pollinated, and primarily heritage or heirloom varieties, but ones that our supporters customers are encouraged to propagate and save seeds from. We do not offer patented, licensed or PVP protected varieties. As a mission-driven organization, and not a fiscally motivated company, public domain seeds are at the core of our values. Sadly, we live in a world where corporations and governments work to control seeds. The Open Source Seed Initiative was founded in to protect the ability to share seeds. The term, "organic farming" was first used in a publication, " Look to the Land ", by Lord Northbourne. Then in , J. Rodale founded "Organic Gardening and Farming" magazine and used the word "organic" to describe the "natural method of gardening and farming". It should be noted that prior to about World War II, what we all now call organic gardening and farming was simply the standard horticultural principles practiced for centuries. Organic, is now a marketing term "owned" by the Federal government. That is, if you are located in the United States and want to sell something that you grow organically, and call is organic, you fall under the standards of the U. Organic, Certified Certified Organic refers to products grown under guidelines as mandated by the National Standards on Organic Agriculture. To become certified, growers and processors must keep very detailed records, adhere to the standards, have soil and facilities tested, keep copious records, and pay certification fees and duties effectively taxes. Some believe that the USDA, who has affectively taken legal ownership over the use of the word organic as applied to marketing, is not strict enough. Responsible growers need to identify not only that our food is grown to higher, more considered standards, but also that it is much fresher because it is grown right where it is sold. This of course comes at a cost and at this time - a cost which is prohibitive to us. If you are a certified organic grower, you can still purchase seed from us as much of the varieties we offer are rare and not available elsewhere and all of our seed is chemically untreated. Refer to section Much like the original grassroots efforts of the organic movement of decades ago, there are alternatives cropping up. Overseed When a seed has quality problems such as suspected low germination rates or physical damage, a farmer or gardener may choose to over seed. That is, plant denser than the normal seed spacing. This is intended to compensate for bad seeds and still result in a good stand of plants.

Chapter 9 : A Dictionary of Botanical Terms (Cambridge Library Collection - Life Sciences) - PDF Free Dow

A Dictionary of Botanical Terms John Stevens Henslow (-) was a botanist and geologist. As teacher, mentor and friend to Charles Darwin, it was his introduction that secured for Darwin the post of naturalist on the voyage of the Beagle.

As teacher, mentor and friend to Charles Darwin, it was his introduction that secured for Darwin the post of naturalist on the voyage of the Beagle. Students were encouraged to examine plant specimens carefully, and to record the characteristics of their structures. Henslow would have known how daunting they found the task of becoming proficient with botanical vocabulary, and produced this volume to provide a secure foundation for scientific investigations. It is liberally illustrated with delightful woodcuts that clarify the meaning of selected terms. Cambridge University Press has long been a pioneer in the reissuing of out-of-print titles from its own backlist, producing digital reprints of books that are still sought after by scholars and students but could not be reprinted economically using traditional technology. The Cambridge Library Collection extends this activity to a wider range of books which are still of importance to researchers and professionals, either for the source material they contain, or as landmarks in the history of their academic discipline. Drawing from the world-renowned collections in the Cambridge University Library, and guided by the advice of experts in each subject area, Cambridge University Press is using state-of-the-art scanning machines in its own Printing House to capture the content of each book selected for inclusion. The files are processed to give a consistently clear, crisp image, and the books finished to the high quality standard for which the Press is recognised around the world. The latest print-on-demand technology ensures that the books will remain available indefinitely, and that orders for single or multiple copies can quickly be supplied. The Cambridge Library Collection will bring back to life books of enduring scholarly value including out-of-copyright works originally issued by other publishers across a wide range of disciplines in the humanities and social sciences and in science and technology. The content and language reflect the beliefs, practices and terminology of their time, and have not been updated. Cambridge University Press wishes to make clear that the book, unless originally published by Cambridge, is not being republished by, in association or collaboration with, or with the endorsement or approval of, the original publisher or its successors in title. It contains a copious list of the Latin and English terms which have been used by various Botanical Authors, the former distinguished by Italic Capitals, the latter by Eoman Capitals. The Greek or Latin derivatives are in brackets, immediately after the terms. To avoid needless repetitions, when the case admits reference is made from the Latin to the corresponding English term, where the explanation is alone given; small wood cuts occasionally assist in illustrating some of the terms. The names of the Natural Orders are also given, and these are referred to their Classes. A science with a technical terminology of about words and synonymes may appear repulsive ; but a little consideration will satisfy us that this need not be the case. A large number of the terms here recorded have been very needlessly employed, and are only met with in the works of the older botanists. Many of the words employed in describing plants retain their ordinary acceptance, and others which have a more technical application need to be explained only once to be easily retained. Those words which have been exclusively coined for this science, and are still in use, are not so numerous as to alarm the least energetic of its votaries. No slight confusion occurs in the minds of beginners from the different sense in which different authors have sometimes employed the same word ; and also from the identity in meaning which they have attached to different words. Carrying on their labours independently, and finding it necessary to give expression to some newly observed fact, authors have done this in ignorance that another observer may be doing the same thing at the same time, or may have done it before. What often happens with respect to names given nearly simultaneously to the same plant by different describers, or given by one in ignorance of the labours of another, has occurred to an unfortunate extent in botanical Terminology ; and hence we are overloaded with synonymes. It is here especially that our Dictionary will be found serviceable; let any one turn to the word " Receptacle," and he will appreciate this remark. By observing in which of its significations a particular Author employs a special term, all doubt as to his meaning is immediately at an end. It is certainly to the difficulties which the undue extension of our botanical nomenclature has thrown in the way of beginners, that so many are inclined to turn

aside from systematic botany, and to direct their attention, too exclusively, to the engaging speculations of botanical physiology. Without doubt physiology is the higher department of the science, and minute vegetable anatomy a branch of investigation essential to its progress. But it is in vain to attempt raising a superstructure that will be likely to stand, until the foundations shall have been securely laid. And assuredly the labours of systematic botanists, in the present state of our science, are those most needed, and will be so for some time to come, or there will be no steady progress for Botany. The truly scientific systematist is far from avoiding the investigations of the vegetable anatomist and physiologist. No sure step in advance is now to be made in systematic botany without careful dissections, and some reference to the functions of specific organs. All must remain vague and unsatisfactory in physiology which is not secured by those bonds, constantly strengthening by which System combines all clearly-ascertained "Facts," and gives expression to the nearest approximation we can hope to make to the Divine scheme upon which this portion of the Creation has been constructed. The explanations will be given under the several English terms, and the Latin terms will be printed in Italics, generally, with a mere reference to the corresponding English ones. The same as indigenous. Its actual existence is either assumed by analogy, or is sometimes detected by an accidental or monstrous condition of a plant. Thus, when the stamens in a rose are said to be perigynous, this term marks their position relatively, with respect to the pistils; but when the rose is said to be calycifloral, the absolute position of the stamens is alluded to, as being placed on the calyx. A natural order, of which the most usual and prominent characteristics are, an irregular two-lipped corolla, much resembling that of some Labiatae; with the stamens didynamous, but generally reduced to two, by the total or partial abortion of one pair. The ovary is two-celled, and the capsule opens elastically with a loculicidal dehiscence. The species are chiefly tropical herbs and shrubs, with opposite leaves. It is used in opposition to "incumbent. A small natural Order composed of trees peculiar to the more temperate parts of the northern hemisphere. The flowers are usually small and green, and generally contain both calyx and corolla, varying in the number of their parts from four to nine. The stamens spring from an hypogynous disk and are about eight in number. The flowers are occasionally polygamous. The ovary is two lobed, and the fruit possesses the peculiar winged structure termed a Samara. Applied especially to the leaves of the Fir-tribe fig. Where the fruit is superior, and consequently the pericarp is not invested by the calyx. It is dry, hard, single-seeded, and indehiscent. This is otherwise termed a Nut. The seeds of compositae are the best examples, fig. More usually called "cremocarpium. Otherwise, termed a cryptogamic plant. As synonymous with the Linnean class Cryptogamia, the Acotyledones form a natural class, which includes all the flowerless plants; and is sub-divided into several very distinct orders, as 1, Filices, Ferns 2, Lycopodiaceae Club-mosses 3, 2 6 ACU Equisetaceae: These being crowded together are mostly abortive, whilst one only is usually developed, at least at the same spot. Thus, of the anther, when the suture is turned towards the axis or centre of the flower, which is the most usual case. In a curved embryo, where the extremities of the radicle and cotyledons are contiguous, and both turn towards the hilum, they are styled adverse. Where the stigma turns towards the circumference of the flower, so as to face the stamens. The principal forms of aestivation are the valvular, induplicate, twisted, alternate, quincunxial, vexillary, cochleate, imbricate, calyculate, convolute, and plicate. Applied in contra-distinction to ANALOGY, where the resemblance, though it may at first appear striking, lies between less important organs. Thus the foliage of the Lathyrus nissolia resembles that of a grass, but there is no affinity between the genus Lathyrus which belongs to the class Dicotyledones, and the grasses which are of the class Monocotyledones. Of GENUS, a without, ykvoq offspring a name applied to cellular acotyledones, which have no distinct increasing surface, but are enlarged by the addition of new parts. Applied to woody flowers, whether indigenous or naturalized. It contains only the two genera Alangium and Marlea. It is of a farinaceous, oily, or horny consistency, surrounding the embryo wholly or in part, and affording nourishment to the young plant during the earliest stages of germination. Flower obtained from wheat and other corn is composed of it. The outermost layers of wood in Exogenous trees, which have not yet passed to the state of Duramen, or Heart-wood. They are very varied in their external appearance; some being composed of homogeneous flattened laminae, whilst others are capillary, simple or ramified, solid or tubular. A natural Order of Monocotyledones, containing ALV n only a few aquatic species, with lax tissue, the limb of whose leaves float on the surface of the water. The perianth is

distinctly double, the three inner segments petaloid. The stamens and carpels are distinct, and are either six in number or indefinite. The capsules contain one or two seeds, without albumen, and with a curved embryo bent double. Thus when a flower is strictly regular, the parts composing each floral whorl stand opposite the spaces which lie between contiguous parts of the next whorl, fig. In the disposition of the leaves and branches, this term is applied when these organs are apparently disposed without regularity, fig. The aestivation of a perianth is alternate when its parts being disposed alternately in two or more whorls, those which are the outermost also partially overlap those which are within them, fig. An ill-defined order of Dicotyledones composed of humble herbs and a few shrubs. Many are esteemed as potherbs, and some are cultivated for the beauty and durability of their inflorescence, arising from the dense aggregation of their otherwise inconspicuous flowers, and the scarious nature of their deeply coloured bracts or sepals. The sepals are three or five. The stamens are of the same number as the sepals or some multiple of them, distinct or monadelphous. Unless, with Lindley, we exclude the Illecebrese and some others from the Order, the stamens may be either hypogynous or perigynous, and the perianth either monochlamydeous or dichlamydeous. There is one ovary, with one or few ovules, which becomes a membranous utricle, with the seed pendulous from a central free funiculus. The testa crustaceous, and embryo curved round a central farinaceous albumen amphitropal. An order of Monocotyledones, in which the perianth is superior, regular and sexpartite; the segments in two whorls, but all are coloured and not separable into distinct. Six stamens with the filaments sometimes cohering by their dilated bases; and sometimes there is an additional whorl of cohering barren stamens which form a petaloid cup-shaped nectary. Ovary 3-celled, each cell with 1, 2, or most frequently with many seeds. Capsule 3-valved, with loculicidal dehiscence, or else a seeded berry. Testa either membranous, brittle, or fleshy. Albumen copiousfleshyor corneous, enclosing an erect embryo, which is straight or nearly so. These plants are frequently bulbous, and the flowers subtended by spathaceous bracts. Thus, AMP 13 in an indehiscent pericarp, like that of the Orange, the dissepiments are "ambiguous," because they are equally connected with the axis and paries, and it seems doubtful whether they ought to be considered as expansions of the one or the other. The hilum is "ambiguous," when the seed is so much curved that the apex and base are brought close together. The stipules are so, when they are equally attached to the stem and petiole. This term has been applied to the lower division of the peculiar form of capsule styled a "pyxidium. ANG 15 avrjp dvdpgb a man the stamens taken collectively; just as corolla signifies the aggregate of the petals, and calyx of the sepals. Applied principally in the Cruciferae. Thus in Scabiosa and many other Dipsacese, the corolla is formed by the adhesion of five petals, whilst there are only four stamens. An annual leaf is one which falls in the autumn, as contradistinguished from an evergreen which lasts through the winter. In the vascular tissue, an "annular-vessel "is a cylindrical membranous tube marked at intervals with transverse stripes or rings, fig. Or where some organ is remarkable for the singularity of its shape, which cannot readily be assimilated to any common object for the purpose of comparison; as in the petals of Delphinium and Aconitum. In the latter application, those parts are anterior which are placed in front of others, or outwardly with respect to the axis about which they are arranged.