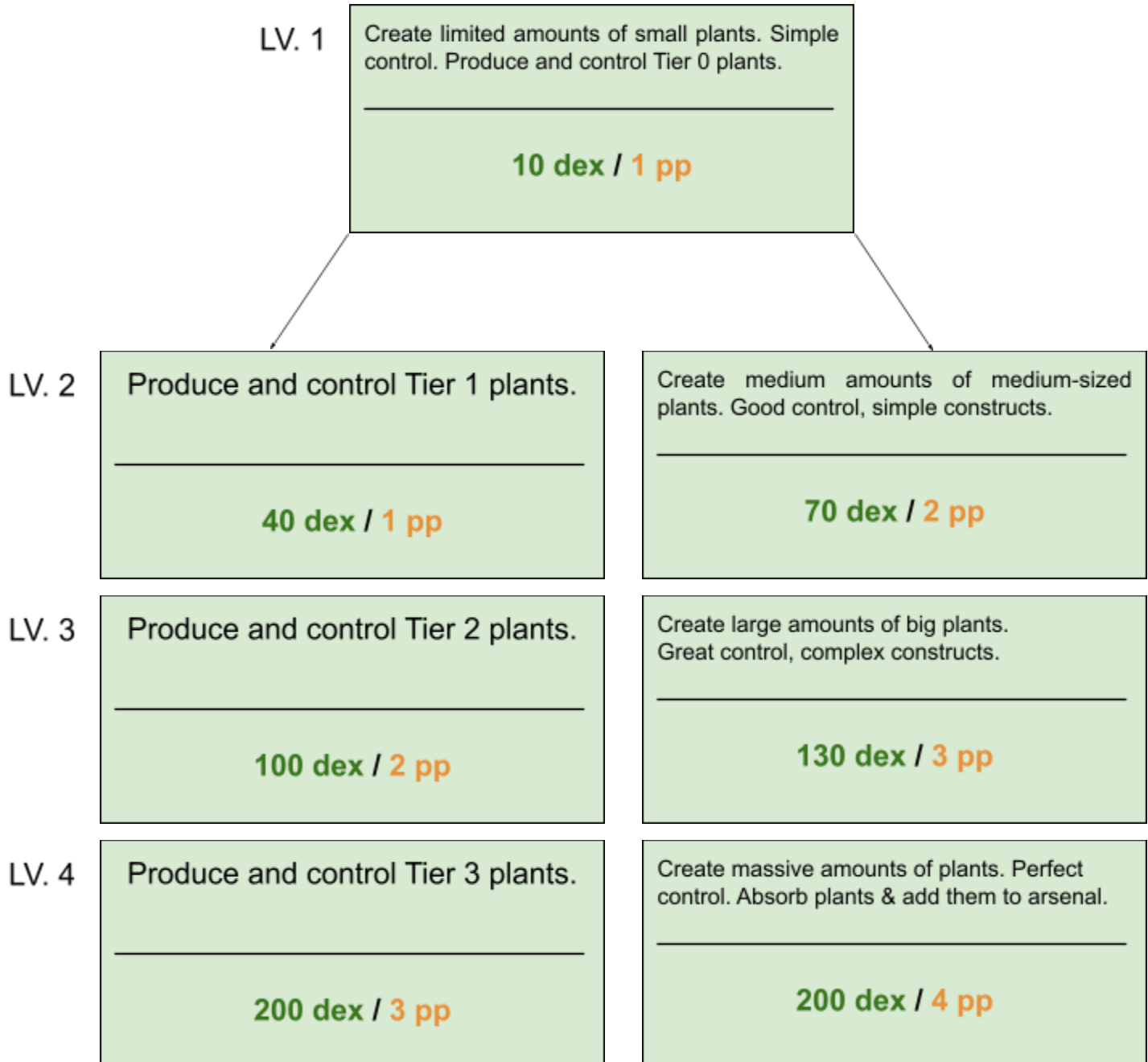


Plant Paramecia

Power Tree



Plant Paramecia

Toughness

Toughness	Dex
Plant	10
Stone	70
Iron	130
Steel	200

Plant Paramecia

Styles (WIP)

Symbol	Name	Description	No. of Moves	Comments
	Green Demon	Offense moveset		
	Battle Angel	Defense moveset		
	Queen of Thorns	Control moveset		
	Sunstrider	Photosynthesis moveset		
	Lifebringer	Construct moveset		

Stances



Stamina (+20%; -SPD)



Strength (+20%; -SPD)



Speed (+10/20%; -STA)

Plant Paramecia

Moveset (WIP)

Style	Name	Description	DEX	Comments
	Leaf Blade	Rosa transforms any of her limbs into broadleaf blades	10	Offensive
	Crosscut	Rosa uses two leaf blades to slice at her opponent in a crosscut	30	Offensive
	Kunai	Rosa transforms any of her hands/feet into tripartite leaves. Can also produce and throw them	10~50	Offensive
	Shuriken	Rosa slings a series of serrated leaf stars	50	Offensive
	Chakram	Rosa launches any number of flying serrated leaf discs	50	Offensive
	Double Slice Pepperoni	Rosa launches two serrated leaf discs which slice at the opponent in a crosscut	50	Offensive
	Whip	Rosa transforms any of her limbs into tendrils	10	Offensive/ Misc
	Hook	Rosa transforms any of her limbs into tendrils with leaflet hooks	10	Offensive/ Misc
	Hydra	Rosa transforms a number of her limbs or her hair into tendrils	50	Offensive/ Misc

Plant Paramecia

	Medusa	Rosa transforms a number of her limbs or her hair into sundew leaves	50	Offensive/ Misc
	Facehugger	Rosa shoots a small compound leaf made of numerous sundew tendrils which latch onto a target	50	Offensive
	Straightjacket	Rosa shoots a large compound leaf made of numerous sundew tendrils which latch onto a target	100	Offensive
	Kraken	Rosa creates a massive compound leaf made of numerous sundew tendrils which latch onto a target	200	Offensive
	Gust	Rosa unleashes a gust of leaves across a small area	50	Offensive
	Twister	Rosa unleashes a twister of leaves across a wide area	100	Offensive
	Hurricane	Rosa unleashes a torrent of leaves across a large area	200	Offensive
	Dragon Dance	Rosa launches a piercing, spiraling double-helix stream of leaves	150	Offensive
	Pendulum Smash	Rosa connects a large amount of wooden debris mid-air with her vines, then slams it all into her foe	100	Offensive
	Surf	Rosa creates a board of lotus leaves to surf on water	10	Misc

Plant Paramecia

	Capsule	Rosa creates an airtight sphere of lotus leaves as a floatation device	50	Misc
	Shield	Rosa turns any of her limbs into a thick plate of leaves	10	Defensive
	Cocoon	Rosa envelops herself or a small area in a membrane of leaves	50	Defensive
	Bunker	Rosa envelops a wide area in a membrane of leaves	100	Defensive
	Dome	Rosa envelops a large area in a membrane of leaves	200	Defensive
	Spear	Rosa turns any of her limbs into spines. Can also produce and throw them	10~50	Offensive
	Missile	Rosa shoots a number of large tendril-guided spines	50	Offensive
	Machine Gun	Rosa fires hundreds of rounds of spines from her palms	50	Offensive
	Fighter Jet	Rosa flies from above and pellets the opponent with hundreds of spines	100	Offensive
	Blowgun	Rosa spits out a stream of spines	50	Offensive
	Thornsaw	Rosa transforms any of her limbs into rotating chains of spines	50	Offensive

Plant Paramecia

	Blowfish	Rosa launches spines from all over her body	50	Offensive
	Acupuncture	Rosa embraces an opponent and skewers them with spines springing off her body	100	Offensive
	Bed of Nails	Rosa makes a bed of sharp roots erupt from the ground	50~100	Offensive
	Torrent	Rosa launches a torrent of spines	100	Offensive
	Thornado	Rosa unleashes a tornado of spines	100	Offensive
	Thunderstorm	Rosa unleashes a rain of spines which dart to the ground	100	Offensive
	Armageddon	Rosa spikes a massive area with large spines	200	Offensive
	Everblade	Rosa uses conifer leaves for her cutting Summer Style moves	x	Offensive
	Everspike	Rosa uses conifer leaves for her offensive Rose Style moves	x	Offensive
	Everdome	Rosa uses fire-resistant conifer leaves for defensive Summer or Rose Style moves	x	Offensive/ Defensive
	Monkey Drill	Rosa produces a rotating drill made of Chilean pine conifer leaves	50	Offensive

Plant Paramecia

	Whack-a-Mole	Rosa produces two rotating drills and blasts them off at a target, creating a pair of Mole constructs mid-air which would burrow into the target and rip them from the inside	100~200	Offensive
	Autumn Blade	Rosa coats the blades with pre-prepared poison from poisonous leaves for Summer Style moves	x	Offensive
	Autumn Spike	Rosa coats the spines with pre-prepared poison from poisonous leaves for Rose Style moves	x	Offensive
	Autumn Tea	Rosa spikes water with poison using poisonous leaves	10	Offensive
	Cloak & Dagger	Rosa uses a Smoke Bomb vs an opponent and follows up with an Autumn move up to 50 DEX.	50	Offensive
	Flytrap	Rosa transforms any of her limbs into Venus flytrap leaves	10	Offensive
	Triffid	Rosa launches any number of tendril-guided Venus flytrap leaves	50	Offensive
	Iron Maiden	Rosa entraps a foe with giant Venus flytrap leaves	50	Offensive
	Fanged Hydra	Rosa transforms her any of her limbs into tendrils with flytrap leaves at the tip. These tendrils can split and multiply.	100	Offensive

Plant Paramecia

	Thunderwheel	Rosa launches any number of guided spined discs	50	Offensive
	Wings	Rosa sprouts giant leafy wings which enable her to fly. Flight duration depends on DEX.	50+	Misc
	Falling Sky	Rosa launches the leaves in her wings to slice at a foe	50+	Offensive
	Stove	Rosa builds a makeshift stove over a lit fire with a spine framework covered with fire resistant leaves such as maple, pine or green ash	50	Misc
	Spike	Rosa turns any of her limbs into thick plates of leaves and spines	10	Offensive/ Defensive
	Cloister	Rosa envelops herself or a small area with a membrane of leaves and spines	50	Offensive/ Defensive
	Echidna	Rosa envelops a medium area with a membrane of leaves and spines	100	Offensive/ Defensive
	Thunderdome	Rosa envelops a large area with a membrane of leaves and spines	200	Offensive/ Defensive
	Charoma	Rosa emits pheromones whenever she's excited in the form of a flowery charismatic aroma	10	Misc/ Passive
	Perfume	Rosa produces aromatic petals	10	Misc

Plant Paramecia

	Smoke Bomb	Rosa blasts the area around her with an explosion of petals	50	Defensive/ Misc
	Haze	Rosa fills a small area with petals	100	Defensive/ Misc
	Flood	Rosa floods a large area with petals	200	Defensive/ Misc
	Filter	Rosa disinfects water w/ tulsi leaves	10	Misc
	Tea	Rosa makes tea w/ steamed herbal leaves (e.g. camellia sinensis)	10	Misc
	Bowl	Rosa creates a bowl out of interwoven leaves	10	Misc
	Compress	Rosa makes a leaf compress to reduce inflammation or fever using leaves from chamomile or mint	10	Misc
	Gas Mask	Rosa puts a leaf masks on herself and one other person, connecting the masks with a tube made of tendrils; typically used to exchange oxygen and carbon dioxide	50	Misc
	Photosynthesis	Rosa taps a reserve of nutrients to heal her wounds	200	Misc
	Chlorophyllia	Rosa absorbs the chlorophyll of leaves in a given area to restore her nutrients reserve	200	Misc

Plant Paramecia

	Oxygenation	Rosa intakes a quantity of carbon dioxide from the air and releases a quantity of oxygen into the air	200	Misc
	Dragon Breath	Rosa uses Oxygenation to launch focused air blasts	250	Offensive
	Worm	Rosa creates any number of worm constructs made of assorted conifer leaves and spines	50	Offensive/ Misc
	Mole	Rosa creates any number of mole construct of assorted conifer leaves and spines	50~ 100	Offensive/ Misc
	Bird	Rosa creates any number of bird constructs made of assorted leaves and spines	50~ 100	Offensive/ Misc
	Chopper	Rosa creates a motorbike construct out of assorted leaves and leaf modifications	100	Misc
	Griffon	Rosa creates a large mountable bird construct of assorted leaves and leaf modifications. Models: Roc <i>prevalence:</i> broadleaves <i>specialty:</i> cut, sever Thunderbird	100	Offensive/ Defensive/ Misc

Plant Paramecia

		<i>prevalence:</i> conifer leaves, spines <i>specialty:</i> penetrate, shred Phoenix <i>prevalence:</i> petals <i>specialty:</i> evade, distract		
	Garden Gnome	Rosa creates any number of homunculi of assorted leaves and leaf modifications. Models: Ashley <i>prevalence:</i> broadleaves <i>specialty:</i> cut, sever Rosy <i>prevalence:</i> conifer leaves, spines <i>specialty:</i> penetrate, shred Daisy <i>prevalence:</i> petals <i>specialty:</i> evade, distract Ivy <i>prevalence:</i> poison leaves <i>specialty:</i> poison	100	Offensive/ Defensive/ Misc
	Guardian	Rosa assembles a humanoid of assorted leaves and leaf modifications. Models: Thing 1 Capable of performing all of Rosa's moves up to its DEX level. <i>preference:</i> offense Thing 2	100~ 150	Offensive/ Defensive/ Misc

Plant Paramecia

		Capable of performing all of Rosa's moves up to its DEX level. <i>preference:</i> defense		
	Dragon	Rosa creates a mountable wyvern construct made of assorted leaves and leaf modifications. Models: Seiryū Capable of performing all of Rosa's moves up to its DEX level. <i>preference:</i> aerial combat Kōryū Capable of performing all of Rosa's moves up to its DEX level. <i>preference:</i> ground combat Suzaku Capable of performing all of Rosa's moves up to its DEX level. <i>preference:</i> evasion	200~ 250	Offensive/ Defensive/ Misc

Plant Paramecia

Plant Tiers

Table: Tier 0

Name	Description	Notable uses/properties
Achillea millefolium (yarrow)	A white flowering plant	- has medicinal properties - repels pest insects, attracts predatory insects
Aloe Vera	A succulent evergreen plant	- has medicinal properties
Calendula (marigold)	A genus of herbaceous plants.	- has medicinal properties
Camellia sinensis (tea)	A species of evergreen shrub.	- has culinary uses
Chamomile	The common name for several daisy-like plants.	- has medicinal properties
Imperata cylindrica (kunai grass)	A species of grass with one of the sharpest grass blades.	- has industrial uses
Mentha (mint)	A genus of herbaceous plants.	- has medicinal properties - used as an insecticide
Ocimum tenuiflorum (tulsi)	An aromatic plant.	- has antiseptic properties - repels insects
Rose	A woody flowering plant.	- has medicinal properties

Plant Paramecia

Table: Tier 1

Name	Description	Notable uses/properties
Cannabis	A genus of flowering plants	- has psychoactive and medicinal properties
Ilex aquifolium (common holly)	An evergreen tree or shrub.	- has psychoactive, toxic and medicinal properties
Nelumbo (lotus)	A genus of flowery aquatic plants. Only two known living species.	- the leaves are highly water-repellent - can generate heat
Poppy	A flowering plant.	- has narcotic and medicinal properties
Vine	Any plant with a growth habit of trailing or climbing stems, lianas or runners.	- can wind around stuff
Common fruit and veggies	TBD	TBD

Plant Paramecia

Table: Tier 2

Name	Description	Notable uses/properties
Cactus	A succulent plant.	- some have psychoactive or medicinal properties
Cuscuta (dodder)	A genus of about 100–170 species of parasitic plants.	- can wind around stuff - can penetrate and leach nutrients off host
Salvia divinorum (salvia)	An herbaceous plant.	- has psychoactive properties
Acer (maple)	A genus of trees and shrubs.	- has exceptional strength and hardness - has good fire resistance
Fraxinus pennsylvanica (green ash)	A deciduous tree.	- has good fire resistance
Liana	Woody vines.	- can wind around stuff
Oak	A tree or a shrub.	- has exceptional strength and hardness
Pine	A coniferous evergreen tree.	- has great fire resistance - has medicinal properties
Spruce	A coniferous evergreen tree.	- has great fire resistance - has medicinal properties

Plant Paramecia

Table: Tier 3

Name	Description	Notable uses/properties
Atropa belladonna (deadly nightshade)	An herbaceous plant.	- has toxic, psychoactive and medicinal properties
Bambusoideae (bamboos)	Evergreen flowering plants.	- has exceptional strength
Drosera (sundew)	A genera of carnivorous plants.	- has sticky glandular tendrils - can digest organic things
Pitcher Plant	A type of carnivorous plant.	- contains slick nectar - can digest organic things
Dionaea muscipula (Venus flytrap)	A carnivorous plant.	- has “teeth” (prickles) - can digest organic things
Araucaria araucana (Chilean pine)	A coniferous evergreen tree.	- leaf has exceptional hardness - has exceptional fire resistance

Plant Paramecia

Plant Compendium

Tier 0

Grasses, herbs, flowers & shrubs:

***Achillea millefolium* (yarrow)**



Description

Achillea millefolium, commonly known as yarrow or common yarrow, is a flowering plant in the family Asteraceae. Other common names for this species include gordaldo, nosebleed plant, old man's pepper, devil's nettle, sanguinary, milfoil, soldier's woundwort, thousand-leaf, and thousand-seal.

Health benefits

In antiquity, yarrow was known as herbal militaris, for its use in stanching the flow of blood from wounds.

Yarrow is considered an especially useful companion plant, repelling some pest insects while attracting good, predatory ones. It attracts predatory wasps, which drink the nectar and then use insect pests as food for their larvae. Similarly, it attracts ladybirds and hoverflies.

The plant can be chewed for toothaches, it can serve as an analgesic, and its infusions can be used for earaches. Tea of common yarrow can help reduce fever and aid in restful sleep. A poultice of the pulverized plant is mixed with water and applied to burns.

Aloe Vera



Description

Aloe vera is a succulent plant species of the genus Aloe. An evergreen perennial, it grows wild in tropical climates around the world and is cultivated for agricultural and medicinal uses. The species is also used for decorative purposes and grows successfully indoors as a potted plant.

Health benefits

Plant Paramecia

It is found in many consumer products including beverages, skin lotion, cosmetics, or ointments for minor burns and sunburns.

Calendula (marigold)



Description

Calendula is a genus of about 15–20 species of annual and perennial herbaceous plants in the daisy family Asteraceae that are often known as marigolds. Other plants are also known as marigolds, such as corn marigold, desert marigold, marsh marigold, and plants of the genus Tagetes. The most commonly cultivated and used member of the genus is the pot marigold (*Calendula officinalis*). Popular herbal and cosmetic products named 'calendula' invariably derive from *C. officinalis*.

Properties & use

Calendula species have been used traditionally as culinary and medicinal herbs. The petals are edible and can be used fresh in salads or dried and used to color cheese or as a replacement for saffron.

Health benefits

Calendula ointments are skin products available for use on minor cuts, burns, and skin irritation. Plant pharmacological studies have suggested that Calendula extracts have antiviral, antigenotoxic, and anti-inflammatory properties in vitro. In herbalism, Calendula in suspension or in tincture is used topically for treating acne, reducing inflammation, controlling bleeding, and soothing irritated tissue.

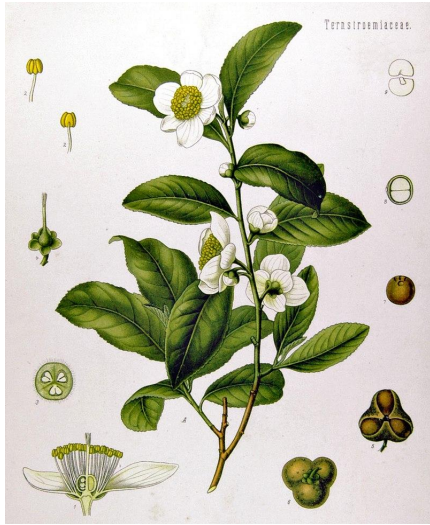
Culinary & industrial use

Calendula is an ingredient in soups and stews, which explains the nickname "pot marigold". The lovely golden petals can also be used to add color to butter and cheese. Calendula tea provides health benefits, as well as being delicious.

The flowers can be used as a source of dye for fabrics. By using different mordants, a variety of yellows, oranges and browns can be obtained.

Plant Paramecia

***Camellia sinensis* (tea)**



Description

Camellia sinensis is a species of evergreen shrub or small tree whose leaves and leaf buds are used to produce tea. It is of the genus *Camellia* of flowering plants in the family Theaceae. Common names include "tea plant", "tea shrub", and "tea tree" (not to be confused with *Melaleuca alternifolia*, the source of tea tree oil, or *Leptospermum scoparium*, the New Zealand Tea Tree).

Camellia sinensis var. *sinensis* and *Camellia sinensis* var. *assamica*, are two major varieties grown today. White tea, yellow tea, green tea, oolong, dark tea and black tea are all harvested from one or the other, but are processed differently to attain varying levels of oxidation.

Chamomile



Description

Chamomile or camomile is the common name for several daisy-like plants of the family Asteraceae. Two of the species are commonly used to make herbal infusions for medicinal uses: *Matricaria chamomilla* (also known as "Water of Youth") and *Chamaemelum nobile*.

Health benefits

Chamomile exhibits some anti-inflammatory effects.

Plant Paramecia

***Imperata cylindrica* (kunai grass)**



Description

Imperata cylindrica (commonly known as cogongrass, kunai grass, blady grass, alang-alang, lalang grass, cotton wool grass, kura-kura) is a species of grass. It has one of the sharpest grass blades of any species.

Properties & use

It is planted extensively for ground cover and soil stabilization near beach areas and other areas subject to erosion. Other uses include paper-making, thatching and weaving into mats and bags. Young inflorescences and shoots may be eaten cooked, and the roots contain starch and sugars and are therefore easy to chew. Its high concentrations of potassium provide a hydrating effect to the skin. Can be used as a substitute for salt due to its high saline content.

***Mentha* (mint)**



Description

Mentha (also known as mint) is a genus of plants in the family Lamiaceae (mint family).

Properties & use

Mint was originally used as a medicinal herb to treat stomach ache and chest pains. Menthol, a chemical compound found in mint, can create a cooling sensation when ingested or applied on the skin. Mint oil is used as an insecticide for its ability to kill some common pests such as wasps, hornets, ants, and cockroaches.

***Ocimum tenuiflorum* (tulsi)**



Description

Ocimum tenuiflorum (synonym *Ocimum sanctum*), commonly known as holy basil, tulasi (sometimes spelled thulasi) or tulsi, is an aromatic perennial plant in the family Lamiaceae.

Properties & use

Tulsi leaves can be used to disinfect water or stored with food to repel insects.

Plant Paramecia

Rose



Description

A rose is a woody perennial flowering plant of the genus *Rosa*, within the family Rosaceae, or the flower it bears. There are over three hundred species and thousands of cultivars. They form a group of plants that can be erect shrubs, climbing, or trailing. They have stems that are often armed with sharp prickles. Flowers vary in size and shape and are usually large and showy, in colours ranging from white through yellows and reds. Rose plants range in

size from compact, miniature roses, to climbers that can reach seven meters in height. Different species hybridize easily, and this has been used in the development of the wide range of garden roses.

Properties & uses

Rose perfumes are made from rose oil (also called attar of roses), which is a mixture of volatile essential oils obtained by steam distilling the crushed petals of roses. An associated product is rose water which is used for cooking, cosmetics and medicine. Rosehips are occasionally made into jam, jelly, marmalade, and soup or are brewed for tea, primarily for their high vitamin C content. They are also pressed and filtered to make rose hip syrup. Rosehips are also used to produce rosehip seed oil, which is used in skin products and some makeup products.

Plant Paramecia

Tier I

Grasses, herbs, flowers & shrubs:

Cannabis



Description

Cannabis is a genus of flowering plants in the family Cannabaceae. The plant is also known as hemp, although this term is often used to refer only to varieties of Cannabis cultivated for non-drug use.

Properties & use

Cannabis has long been used for hemp fibre, hemp seeds and their oils, hemp leaves for use as vegetables and as juice, medicinal purposes, and as a recreational drug (tetrahydrocannabinol (THC) is the principal psychoactive constituent of cannabis). Various compounds, including hashish and hash oil, are extracted from the plant.

Health effects

The psychoactive effects of cannabis are known to have a triphasic nature. Primary psychoactive effects include a state of relaxation, and to a lesser degree, euphoria from its main psychoactive compound, THC. Secondary psychoactive effects, such as a facility for philosophical thinking, introspection and metacognition have been reported among cases of anxiety and paranoia. Finally, the tertiary psychoactive effects of the drug cannabis, can include an increase in heart rate and hunger, believed to be caused by 11-OH-THC, a psychoactive metabolite of THC produced in the liver.

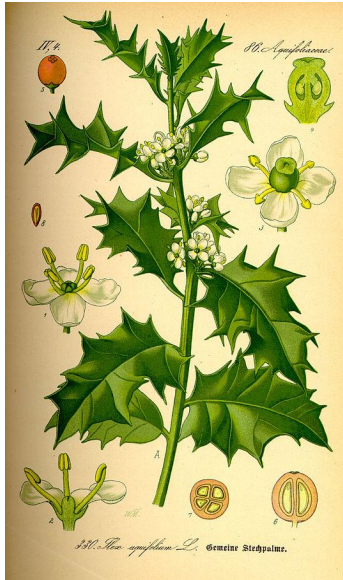
Cannabis is used to treat chronic pain and muscle spasms. Common short-term side effects include dizziness, feeling tired, vomiting, and hallucinations.

Industrial use

The term hemp is used to name the durable soft fiber from the Cannabis plant stem (stalk). Cannabis sativa cultivars are used for fibers due to their long stems; Sativa varieties may grow more than six metres tall. Cannabis for industrial uses is valuable in tens of thousands of commercial products, especially as fibre ranging from paper, cordage, construction material and textiles in general, to clothing. Hemp is stronger and longer-lasting than cotton. It also is a useful source of foodstuffs (hemp milk, hemp seed, hemp oil) and biofuels.

Plant Paramecia

Ilex aquifolium (Common Holly)



Description

Ilex aquifolium (holly, common holly), is a species of holly. It is regarded as the type species of the genus *Ilex*, which by association is also called "holly". It is an evergreen tree or shrub found, for example, in shady areas of forests of oak and beech hedges. It has a great capacity to adapt to different conditions and is a pioneer species that repopulates the margins of forests or clearcuts.

Health effects

Holly berries contain alkaloids, caffeine, and theobromine, saponins, caffeic acid, and a yellow pigment, ilexanthin. The berries are generally regarded as toxic to humans. The leaves of yerba mate, also in the genus *Ilex*, are used to make a caffeinated beverage, called mate. In traditional medicine, holly is supposed to be diuretic, a relief from fever, and a laxative.

Plant Paramecia

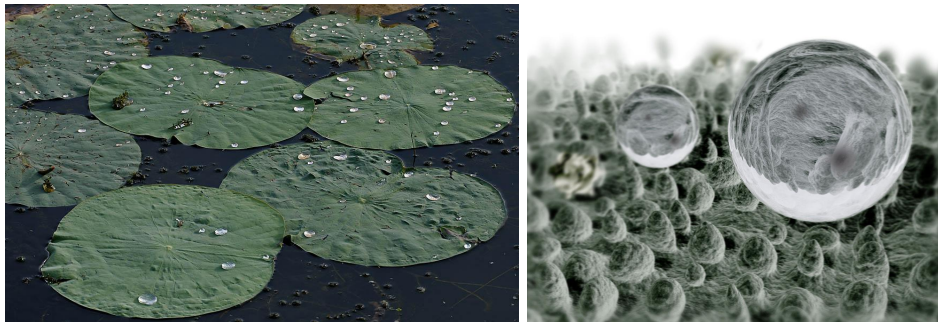
Nelumbo (lotus)



Description

Nelumbo is a genus of aquatic plants with large, showy flowers. Members are commonly called lotus, though "lotus" is a name also applied to various other plants and plant groups, including the unrelated genus *Lotus*. Members outwardly resemble those in the family Nymphaeaceae ("water lilies"), but *Nelumbo* is actually very distant to Nymphaeaceae. There are only two known living species of lotus: The better-known lotus is *Nelumbo nucifera* (pictured left), which is commonly cultivated, eaten and used in traditional medicine. The other lotus is *Nelumbo lutea* (pictured right).

Notable properties



Ultrahydrophobicity

The leaves of nelumbo are highly water-repellent (i.e. they exhibit ultrahydrophobicity) and have given the name to what is called the lotus effect. Ultrahydrophobicity involves two criteria: a very high water contact angle between the droplet of water and the leaf surface, and a very low roll-off angle. This means that the water must contact the leaf surface at exactly one, miniscule point, and any manipulation of the leaf by changing its angle will result in the water droplet rolling off of the leaf.

Thermoregulation

A unique property of the genus *Nelumbo* is that it can generate heat, which it does by using the alternative oxidase pathway (AOX). This pathway involves a different, alternative exchange of electrons from the usual pathway that electrons follow when generating energy in mitochondria, known as the AOX, or alternative oxidase pathway.

Plant Paramecia

Poppy



Description

A poppy is a flowering plant in the subfamily Papaveroideae of the family Papaveraceae. Poppies are herbaceous plants, often grown for their colourful flowers. One species of poppy, *Papaver somniferum*, is the source of the narcotic drug opium which contains powerful medicinal alkaloids such as morphine and has been used since ancient times as an analgesic and narcotic medicinal and recreational drug. It also produces edible seeds.

Properties & use

The opium poppy is used for production of dried latex and opium, the principal precursor of narcotic and analgesic opiates such as morphine, heroin and codeine. Poppy seeds are rich in oil, carbohydrates, calcium and protein. Poppy oil is often used as cooking oil, salad dressing oil, or in products such as margarine. Poppy oil can also be added to spices for cakes, or breads. Poppy products are also used in different paints, varnishes, and some cosmetics.

Vine



Description

A vine is any plant with a growth habit of trailing or scandent (climbing) stems, lianas or runners. The word vine can also refer to such stems or runners themselves, for instance, when used in wickerwork. Certain plants always grow as vines, while a few grow as vines only part of the time. For instance, poison ivy and bittersweet can grow as low shrubs when support is not available, but will become vines when support is available.

Plant Paramecia

Common fruit and vegetables

Description WIP

Plant Paramecia

Tier II

Grasses, herbs, flowers & shrubs:

Cactus



Description

A cactus is a member of the plant family Cactaceae, a family comprising about 127 genera with some 1750 known species of the order Caryophyllales. Almost all cacti are succulents, meaning they have thickened, fleshy parts adapted to store water. Unlike many other succulents, the stem is the only part of most cacti where this vital process takes place. Most species of cacti have lost true leaves, retaining only spines, which are highly modified leaves. In the absence of leaves, enlarged stems carry out photosynthesis. Cacti have a variety of uses: many species are used as ornamental plants, others are grown for fodder or forage, and others for food (particularly their fruit).

Properties & use

Culinary use

Almost any fleshy cactus fruit is edible. For example, the fruit of the saguaro (*Carnegiea gigantea*) can be preserved by boiling to produce syrup and by drying. The syrup can also be fermented to produce an alcoholic drink. *Hylocereus undatus* provides pitahaya orejona, known as a dragon fruit. The plant now known as *Opuntia ficus-indica*, or the Indian fig cactus, has long been an important source of food. Both the fruit and pads are eaten.

Health effects

A number of species of cacti have been shown to contain psychoactive agents, chemical compounds that can cause changes in mood, perception and cognition through their effects on the brain. Two species have a long history of use: *Lophophora williamsii* (peyote) and *Echinopsis pachanoi*. Both contain mescaline. In addition to their use as psychoactive agents, some cacti are employed in herbal medicine.

Industrial use

Cacti are used as construction materials. Living cactus fences are employed as barricades. The woody parts of cacti, such as *Cereus repandus* and *Echinopsis atacamensis*, are used in buildings and in furniture. The very fine spines and hairs (trichomes) of some cacti were used as a source of fiber for filling pillows and in weaving.

Plant Paramecia

Cuscuta (dodder)



Description

Cuscuta (dodder) is a genus of about 100–170 species of yellow, orange, or red (rarely green) parasitic plants. Formerly treated as the only genus in the family Cuscutaceae, it now is accepted as belonging in the morning glory family, Convolvulaceae.

Notable properties

After a dodder attaches itself to a plant, it wraps itself around it. If the host contains food beneficial to dodder, the dodder produces haustoria that insert themselves into the vascular system of the host. The original root of the dodder in the soil then dies. The dodder can grow and attach itself to multiple plants. It is an ectoparasite and is categorized as holoparasitic plant, or a plant that is non-photosynthetic and completely dependent on host. Dodders can carry diseases.

Salvia divinorum (salvia)



Description & health benefits

Salvia divinorum (also known as sage of the diviners, seer's sage or simply salvia) is a plant species with transient psychoactive properties when its leaves are consumed by chewing, smoking or as a tea. The leaves contain opioid-like compounds that induce hallucinations. The plant grows to over a meter high,[1] has hollow square stems like others in the mint family Lamiaceae, large leaves, and occasional white flowers with violet calyxes. Its chief active psychoactive constituent is a structurally unique diterpenoid called salvinorin A, a potent κ -opioid agonist. There are

indicationsss *Salvia divinorum* may have low toxicity. The effects are rapid in onset and short-lasting.

Plant Paramecia

Trees & lianas:

Acer (maple)



Description & notable properties

Acer is a genus of trees and shrubs commonly known as maple. These are commonly known to have good fire resistance.

Fraxinus pennsylvanica (green ash)



Description & notable properties

Fraxinus pennsylvanica is a deciduous tree commonly known as green ash. These are commonly known to have good fire resistance.

Plant Paramecia

Liana



Description

A liana is any of various long-stemmed, woody vines that are rooted in the soil at ground level and use trees, as well as other means of vertical support, to climb up to the canopy to get access to well-lit areas of the forest.

The term "liana" is not a taxonomic grouping, but rather a description of the way the plant grows – much like "tree" or "shrub". Lianas may be found in many different plant families. One way of

distinguishing lianas from trees and shrubs is based on the stiffness. Trees and shrubs have young twigs and smaller branches which are quite flexible and older growth such as trunks and large branches which are stiffer. A liana often has stiff young growths and older, more flexible growth at the base of the stem.

Oak

Description

An oak is a tree or shrub in the genus *Quercus*, of the beech family Fagaceae. There are approximately 600 extant species of oaks. The common name "oak" also appears in the names of species in related genera, notably *Lithocarpus* (stone oaks), as well as in those of unrelated species such as *Grevillea robusta* (silky oaks) and the Casuarinaceae (she-oaks).

Properties & uses

Oak wood has great strength and hardness. The wood is very resistant to insect and fungal attack because of its high tannin content. Oak wood chips are used for smoking fish, meat, cheese, and other foods. The bark of the white oak is dried and used in medical preparations. Oak bark is also rich in tannin, and is used by tanners for tanning leather. Acorns are used for making flour or roasted for acorn coffee. Acorns are also edible to humans, after leaching of the tannins.

Plant Paramecia

Pine



Description & notable properties

A pine is any conifer in the genus *Pinus* of the family Pinaceae. These are commonly known to have good high fire resistance.

Spruce



Description

A spruce is a tree of the genus *Picea*, a genus of about 35 species of coniferous evergreen trees in the family Pinaceae. Spruces are large trees, from about 20–60 m (about 60–200 ft) tall when mature, and have whorled branches and conical form.

Properties & use

Spruce wood is used for many purposes, ranging from general construction work and crates to highly specialised uses in wooden aircraft. Because this species has no insect or decay resistance qualities after logging, it is generally recommended for construction purposes as indoor use only (indoor drywall framing, for example).

The fresh shoots of many spruces are a natural source of vitamin C. The leaves and branches, or the essential oils, can be used to brew spruce beer. The tips from the needles can be used to make spruce tip syrup. In survival situations spruce needles can be directly ingested or boiled into a tea. This replaces large amounts of vitamin C. Also, water is stored in a spruce's needles, providing an alternative means of hydration. Spruce can be used as a preventive measure for scurvy in an environment where meat is the only prominent food source.

Plant Paramecia

Tier III

Grasses, herbs, flowers & shrubs:

***Atropa belladonna* (deadly nightshade)**



Description

Atropa belladonna, commonly known as belladonna or deadly nightshade, is a perennial herbaceous plant in the nightshade family Solanaceae, which includes tomatoes, potatoes, and eggplant (aubergine).

The foliage and berries are extremely toxic when ingested, containing tropane alkaloids. These toxins include atropine, scopolamine and hyoscyamine, which cause delirium and hallucinations. These tropane alkaloids are common in the Solanaceae family. It has a long history of use as a medicine, cosmetic, and poison.

Health effects & use

Tropane alkaloids of *A. belladonna* were used as poisons. The antidote for belladonna poisoning is physostigmine or pilocarpine, the same as for atropine.

Belladonna has been used in herbal medicine for centuries as a pain reliever, muscle relaxer, and anti-inflammatory, and to treat menstrual problems, peptic ulcer disease, histaminic reaction, and motion sickness. It was used as an anesthetic for surgery.

The common name belladonna originates from its historic use by women. Drops prepared from the belladonna plant were used to dilate women's pupils, an effect considered to be attractive and seductive. Adverse effects include minor visual distortions, inability to focus on near objects, and increased heart rate. Prolonged usage may cause blindness.

Atropa belladonna and related plants have occasionally been used as recreational drugs because of the vivid hallucinations and delirium they produce. The main psychoactive ingredients are the alkaloids scopolamine, and to a lesser extent, hyoscyamine. The effects of atropine on the central nervous system include memory disruption, which may lead to severe confusion. The major effects of belladonna consumption last for three to four hours; visual hallucinations can last for three to four days, and some negative aftereffects are preserved for several days.

Plant Paramecia

Bambusoideae (bamboos)



The bamboos are evergreen perennial flowering plants in the subfamily Bambusoideae of the grass family Poaceae. Bamboos include some of the fastest-growing plants in the world. Certain species of bamboo can grow 91 cm (36 in) within a 24-hour period, at a rate of almost 4 cm (1.6 in) an hour. Giant bamboos are the largest members of the grass family.

Uses & properties

Bamboos can be used for building materials, as a food source, and as a versatile raw product. Bamboo has a higher specific compressive strength than wood, brick or concrete, and a specific tensile strength that rivals steel.

Dionaea muscipula (Venus flytrap)



Description

Dionaea muscipula (Venus flytrap) is a carnivorous plant.

Notable properties

It catches its prey—chiefly insects and arachnids—with a trapping structure formed by the terminal portion of each of the plant's leaves, which is triggered by tiny hairs on their inner surfaces. If the prey is unable to escape, it will continue to stimulate the inner surface of the lobes, and this causes a further growth response that forces the edges of the lobes together, eventually sealing the trap hermetically and forming a "stomach" in which digestion occurs.

Plant Paramecia

Drosera (sundew)



Description

Drosera, commonly known as the sundews, is one of the largest genera of carnivorous plants, with at least 194 species. These members of the family Droseraceae lure, capture, and digest insects using stalked mucilaginous glands covering their leaf surfaces.

Notable properties

Sundews are characterised by the glandular tentacles, topped with sticky secretions that cover their laminae. The trapping and digestion mechanism usually employs two types of glands: stalked glands that secrete sweet mucilage to attract and ensnare insects and enzymes to digest them, and sessile glands that absorb the resulting nutrient soup.

Pitcher Plant



Description

Pitcher plants are several different carnivorous plants which have modified leaves known as pitfall traps—a prey-trapping mechanism which features a deep cavity filled with digestive liquid. The plants attract and drown their prey with nectar.

Notable properties

Insects are attracted to a cavity formed by the cupped leaf, often by visual lures such as anthocyanin pigments, and nectar bribes. The rim of the pitcher is slippery when moistened by condensation or nectar, causing insects to fall in. Pitcher plants may also contain other modifications inside of the pitcher to ensure that insects cannot climb out. The small bodies of liquid contained within the pitcher traps are called phytotelmata. They drown the insect, whose body is gradually dissolved. This may occur by bacterial action (the bacteria being washed into the pitcher by rainfall), or by enzymes secreted by the plant itself.

Plant Paramecia

Trees:

***Araucaria araucana* (Chilean pine)**



Description

Araucaria araucana (commonly called the monkey puzzle tree, monkey tail tree, piñonero, or Chilean pine) is an evergreen tree. It is the hardiest species in the conifer genus *Araucaria*. The leaves have an average lifespan of 24 years, among the highest figures reported for any plant species.