

# Order: Parietales

**Fam: Hypericaceae**

**Small shrubs or perennial herbaceous plants containing volatile oil and resin.**

# *Hypericum perforatum*

(St. John's wort, Sarı kantaron)

Leaves do not contain trichomes,  
however are coated with many  
glandular hairs.

Flowered branches are allowed to stand in olive oil and **St. John's wort oil (Kantaron yağı)** is prepared; this oil is traditionally used in wound healing.

**Herba Hyperici (Hyperici herba)**, contains 0.05-0.3% **hypericin** and **hyperforin** and 2-4% total **flavonoids**. It is used in mild and moderate depression.

# Fam: Theaceae

***Thea sinensis***  
**(*Camellia sinensis*)**  
**(Tea plant, Çay)**

**Origin: China, Japan**

**However cultivated in many tropical countries.**

**The leaf bud at the apex and the following 2 leaves (also called 2 ½ leaves) are collected, fermented with a special method, then dried and **Folia Theae (*Theae folium*) T.K. (Çay yaprağı)** is obtained.**

Contains **caffeine** along with **theophylline** and **theobromine alkaloids** and also **tannin**; stimulant and diuretic due to alkaloids and anti-diarrheic due to tannins.

**Theism:** A kind of chronic intoxication seen with extensive usage of high amounts of tea. Symptoms are: sleeplessness, loss of appetite, losing weight, nervousness.

# Fam: **Passifloraceae**

**Origin: Tropical America.  
A climbing (creeping) taxon (climbing  
with the help of tendrils).**

***Passiflora incarnata* (Passion Flower, Çarkıfelek)**

**Herba Passiflorae (Passiflorae herba) contains alkaloids that are used as sedative for nervous system and antispasmodic in irritable sleeplessness in the form of syrup.**

## **Order: Malvales**

**Tufted trichomes and mucilage containing cells are characteristics of the plants belonging to this order.**

**This order is also called Columniferae due to the presence of a column surrounding the pistil made up of joint stamens.**

# **Fam: Malvaceae (Mallow family, Ebegümeçigiller)**

**Sometimes a second calyx is found underneath the main calyx (made from lobed bracts that resemble sepals); this second calyx is called **epicalyx**.**

# ***Malva sylvestris* (Mallow, Common mallow, ebegümeçi)**

## **Folium Malvae (Malvae folium)**

**T.K. (Ebegümeçi yaprağı) and**

**Flores Malvae (Malvae flos) are rich in mucilage; have emollient\* and expectorant activity, and also used in skin disorders and in the treatment of fruncle\*\* externally.**

(\*emollient: Softening and soothing, especially to the skin; \*\*fruncle: çıban)



# ***Althaea officinalis* (Marshmallow, Hatmi)**

**Folium Althaeae (Althaeae Folium T.K.  
(Hatmi yaprağı)**

**Flores Althaeae (Althaea FLOS)**

**Radix Althaeae (Althaea Radix)**

**All have mucilage: used as emollient, pectoral\***

**(\*pectoral: useful in relieving disorders of the chest or respiratory tract).**

**Used in food industry since “Marshmallow” is obtained from this species.**

# *Gossypium sp.* (Cotton, Pamuk)

*Gossypium arboreum*

*Gossypium herbaceum*

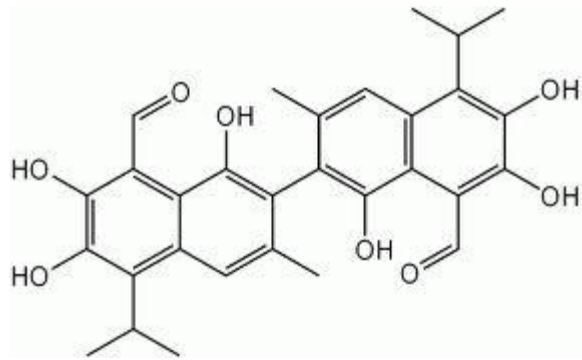
Origin: Asia. Cultivated in South Europe, annual, naturalized plants.

Testa epiderma of each seed contains 5000 – 10000 trichomes that become curved and flat when dried.

These trichomes are removed and cleaned with special methods and ***Gossypium depuratum* T.F. (Absorbent cotton, Hidrofil pamuk)** is prepared. Used in the sterile isolation of wounds as hemostatic and adsorbent.

Fixed oil obtained from the seeds is called ***Oleum Gossypii*** and used in pharmaceutical and food industry.

**This oil leads to temporary infertility in men due to the compound named **gossypol** that it contains (however, processed oil does not contain this substance).**



**Root bark **Gossypii Radicis cortex** is used for abortion as a traditional medicine, however is toxic.**

# Fam: **Tiliaceae**

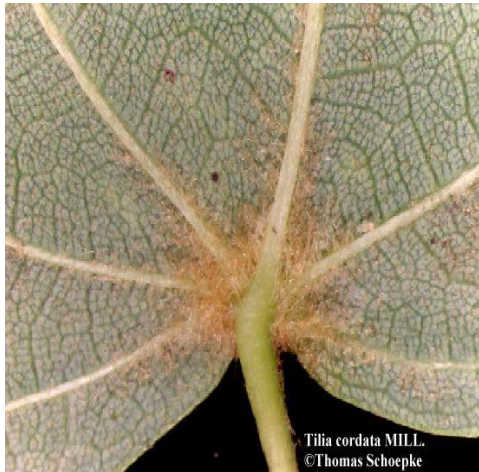
(Linden family,  
Ihlamurgiller).

## ***Tilia platyphyllos***

(Largeleaf Linden, Büyük Yapraklı Ihlamur)

## ***Tilia cordata***

(Littleleaf linden, Küçük yapraklı ıhlamur)



*Tilia cordata* MILL.  
©Thomas Schoepke

Flowers and mostly bracts + flowers of these two species yield **Flores Tiliae (Tiliae flos** T.K. (Ihlamur çiçeği). Contains **mucilage** (6-8%) **flavonoids** (1%) and **volatile oil** (0.05%). Sedative for central nervous system and antispasmodic, diuretic, sudorific\*, expectorant and emollient.

(\*sudorific: causing or increasing sweat )

**Carbo Ligni Tiliae** is prepared from the wood of the tree and this herbal coal is an effective adsorbent that is used as carminative.

Fam:  
**Sterculiaceae**

***Theobroma cacao***  
(Cacao, Kakao Ağacı)

Origin: Tropical America

Fruit is an ellipsoid capsule containing approximately 20 seeds.

Flowers come directly out of the trunk or old axial branches, i.e. shows **cauliflori**.

**Semen Cacao**, contains fixed oil and theobromine (1.5-2%) and low amounts of caffeine.

The oil obtained from the seeds by pressing is called **Oleum Cacao (Cacao oleum) T.K. (Cacao Butter, Kakao yağı)** is a fixed oil melting at body temperature, therefore is used in the production of suppositories.

**The remaining part of the seeds is used in the making of cacao powder and chocolate.**

# *Cola acuminata* (Cola)

Grows and also is cultivated in the tropical regions of West Africa.

Yields **Semen Colae (Colae semen)** T.K. (Kola tohumu) that contains **caffeine** and **theobromine alkaloids** and also **tannins**; is **stimulant, diuretic and astringent**.



# Fam: Rutaceae (Citrus family, Turunçgiller)

## *Ruta graveolens* (Common Rue, Sedefotu)

Grows in the Mediterranean region.

Aerial parts give **Herba Rutae (Rutae herba)** that contains **volatile oil** and **flavonoside (1-2% rutoside)** and **vitamin C**.

Sedative in **hysteria\*** and **epilepsy**. Also used as **stomachic** and **antispasmodic** in the form of infusion.

Though traditionally used as **emmenagogue**, it is dangerous to use.  
(\*hysteria: behavior exhibiting excessive or uncontrollable emotion, such as fear or panic)

***Pilocarpus jaborandi***

**(Jaborandi)**

***Pilocarpus pennatifolius***

***Pilocarpus microphyllus***

- **Folia Jaborandi (Jaborandi folium) T.K.**  
**(Jaborandi yaprağı)** contains **pilocarpine** alkaloid.

- Increases secretion and constricts pupilla (antagonist of atropine). Especially used in ophthalmology to lower eye tension.

# Fam: Geraniaceae

## ***Pelargonium sidoides***

**(South African Geranium, Afrika sardunyasi)**

It has been used by a Zulu tribe with the name  
**Umckaloabo.**

The roots of the plants contains coumarins (Umkalin), phenolic substances (gallic acid, flavonoids) and tannins.

Today, a modern and licensed drug called **Umckaloabo®** (EPs® 7630) is prepared, it is the ethanolic fluid extract of *Pelargonium sidoides* roots.

Has **antibacterial** and **immunomodulator** effect.

It is indicated in acute and chronic respiratory tract and ENT infections like bronchitis, sinusitis, tonsillopharyngitis.

# Fam: Erythroxylaceae

*Erythroxylon coca* is a small tree naturally growing in Peru and Bolivia of South America.

The drug that it yields is **Folia Cocae (Cocae folium)**  
**T.K. (Koka yapağı)** and contains an alkaloid called  
**cocaine**.

**The alkaloid is narcotic and local anesthetic\*;  
leaves are used by the natives against hunger,  
fatigue and thirst.**

(\*anesthetic: an agent that causes loss of sensation with or without the loss of consciousness)

# Fam: Euphorbiaceae (Euphorbia family)

*Ricinus communis* (Castor oil plant,  
Hintyağı bitkisi)

Origin: India

Seeds, **Semen Ricini (Ricini semen) T.K.**  
**(Hintyağı tohumu)** are rich in oil however it  
is poisonous.

**Oleum Ricini (Ricini oleum) T.K. (Hint yağı)** is obtained from the seeds and contains 85% **risinoleic acid**, after ricin is removed, the oil can be used as purgative; it is a strong purgative that acts on the small intestines.

Also used in cosmetics industry.

# Fam: Linaceae

## *Linum usitatissimum*

(Flax, Common flax, keten, zeyrek)

Bright-brown colored seeds give the drug **Semen Lini** (**Lini semen**) T.K. (**Keten tohumu**) and are rich in fixed oil and mucilage.

Seeds swell when left in water, therefore they act as a mechanic purgative (volumetric increase).

The fixed oil in the seeds are obtained by pressing:  
**Oleum Lini (Lini oleum) T.K. (Linseed oil, Keten  
tohumu yağı).**

Dries easily in open air, therefore it is used in oil  
painting.



# Fam: Zygophyllaceae

## *Peganum harmala* (Syrian Rue, Üzerlik)

Seeds are used: **Semen Pegani** contains alkaloids (e.g. harmine); these alkaloids are stimulants of the central nervous system.

Fruits and seeds are also used as incense, and charms are prepared from the fruits and used against evil eye.

# Fam: Hippocastanaceae (Horse-chestnuts)

## *Aesculus hippocastanum* (Horsechestnut, At Kestanesi)

Mature seeds, **Semen Hippocastani (Hippocastani semen)** contains **triterpenic saponosides (escin or aescin)**, these compounds have anti-inflammatory, vasoconstrictor activity and maintain capilar integrity.

Used against **hemorrhoids** and **in the treatment of vascular diseases.**

# Order: Rhamnales

Fam:

**Rhamnaceae**

***Rhamnus sp.***

***Rhamnus frangula***

(=*Frangula alnus*, Alder buckthorn, akdiken, barutağacı)

**Cortex Rhamni Frangulae (Cortex Frangulae-Frangulae cortex)** T.K: barks of the trunk and branches, dark grey colored, has white, ellipsoid lenticels

**This drug should be used a year after it is collected, or else it leads to colic\*. Contains 2% anthracene derivatives.**

**Laxative in low doses, purgative in high doses.**

**(\*colic: severe abdominal pain caused by spasm, obstruction, or distention of any of the hollow viscera, such as the intestines)**

# *Rhamnus catharticus*

(Buckthorn, Akdiken, cehri)

**Fructus Rhamni cathartici (Rhamni cathartici fructus) T. K (Akdikenmeyvası)** is the mature fruits of the plant.

Contains **anthracene derivatives**, used for its **laxative effect**.

# *Rhamnus purshiana* (Cascara Buckthorn)

**Grows in North America  
naturally.**

Barks of the trunk and branches are collected between April-August: **Cortex Rhamni purshianae (Rhamni purshiane cortex) T. F. (Cascara sagrada).**

Has to contain at least 2% **anthraquinone derivatives (cascarosides)**. Used as purgative.

# **Ordo: Myrtales**

Resembles the order Rosales with some of its characters.

## **Fam: Myrtaceae**

*Myrtus communis*  
(Common myrtle,  
Mersin, murt)

**Fruit is a  
blue-black  
colored berry  
and is eaten  
when mature.**

**Folia Myrti (Myrti folium) (Mersin yaprakları)**  
consist of dried leaves of the plant and contains  
**volatile oil.**

Used against **bronchitis\*** and for culinary  
purposes.

(\*bronchitis: chronic or acute inflammation of the mucous  
membrane of the bronchial tubes)



**Oleum Myrti (Myrti aetheroleum)** is the volatile oil obtained from the flowers and the leaves of the plant with steam distillation.

Contains **myrtol, cineol, geraniol** and **nerol**.

**Antiseptic:** Used in **urinary tract disorders**. (Also used in perfumery due to its pleasant smell).

# ***Eucalyptus globulus***

**(Eucalyptus, Tasmanian bluegum, Sıtma Ağacı)**

**Grows easily and absorbs vast amounts of water from the earth.**

Leaves are leathery and show **heterophylly**; leaves on young branches are opposite and ovale-lanceolate; leaves on old branches are alternate and falcate.

These falcate leaves form **Folia Eucalypti (Eucalypti folium) T. K. (Ökalyptus yaprağı)** drug. Contains 3-5% volatile oil. Used in the treatment of **asthma\*** and **bronchitis** in the form of tea.

(\*asthma: a chronic respiratory disease, often arising from allergies, that is characterized by sudden recurring attacks of labored breathing, chest constriction, and coughing)

With steam distillation

**Oleum Eucalypti (Eucalypti aetheroleum T.K. (Ökalyptus esansı)** is obtained; contains 80% **eucalyptol**.

Used as **antiseptic** in **skin** and in **diseases related to the respiratory tract**.

# ***Eugenia caryophyllata***

**(=*Jambosa caryophyllus*, Clove, karanfil ağacı)**

**Origin: Moluccas of the  
Philippines.**

**Flowers are found at the  
tips of the branches in  
groups of three.**

**Flowers are collected  
during their budding  
stage and when their  
green colors turn to  
red.**

**Flores Caryophylli  
(Caryophylli flos  
(Karanfil) Contains 14-  
20% volatile oil and a  
small amount of  
tannin.**

**Oleum Caryophylli (Caryophylli floris etheroleum) T.K. (Karanfil esansı)** is obtained from the flower buds with steam distillation; contains 80-90% **eugenol**.

Has strong **antiseptic** and **analgesic\* property**; was used in dentistry for these purposes.

(\*analgesic: a medication that reduces or eliminates pain)

**Fam: Araliaceae**

***Panax ginseng (Ginseng)***

**Origin: North America and  
Asia.**

**Roots are thick and  
branched and resemble the  
human body.**

**4-5 years old plants'  
root are used in  
treatment.**

**Contains  
triterpenic  
saponosides and B  
group of vitamins.**

**Has been used in Far  
East countries as  
tonic and  
aphrodisiac\* for 2000  
years.**

**(\*aphrodisiac: arousing or  
intensifying sexual desire)**

## **Fam: Umbelliferae (Apiaceae)**

One of the richest families in Spermatophyta with its simple or compound umbel flowers and schizocarp fruits.

Annual, biennial or perennial, herbaceous plants containing volatile oil.

***Cuminum cyminum***(Cumin, Kimyon, acem kimyonu)

**Fructus Cumini (kimyon meyvası)** contains **1.5-4% volatile oil**, and this oil contains **25% cuminaldehyde**.

**Used as spice.**



# *Carum carvi*

(Caraway, Frenk kimyonu,  
karaman kimyonu)

**Fructus Carvi (Carvi fructus) (Frenk kimyonu meyvası)**  
contains **3-9% volatile oil**, **carvone** is the major  
compound (**40-60%**).

Fruits and **Oleum Carvi (Carvi aetheroleum)** are  
carminative, stomachic and diuretic.

# *Pimpinella anisum*

(Anise, Anason)

**Fructus Anisi (Anisi fructus) T.K. (Anason meyvası) has 1.5-3% volatile oil. Used as spice, carminative, aromatizer.**

**Oleum Anisi (Anisi aetheroleum) T.F. (Anason esansi)** is the volatile oil obtained by steam distillation.

70-85% of this oil is composed of **anethole**, therefore is used as anethole source.

Anethole is the starting material for some hormones.

*Foeniculum vulgare*  
(Fennel, Rezene)

**Fructus Foeniculi**  
**(Foeniculi fructus) T.K.**  
**(Rezene meyvası)**  
contains 3-6% **volatile oil**.

**Oleum Foeniculi**  
**(Foeniculi**  
**aetheroleum) T.K.**  
**(Rezene esansı)** is also  
rich in respect to  
**anethole**, used especially  
for children as  
**carminative**.

# *Conium maculatum* (Poison hemlock, Baldıran)

There are dark-red colored spots on the stem, that's why the term "maculatum" is used as the Latin species name

(macula: spot).

**Herba Conii maculati** are the aerial parts collected during flowering period. Contains **coniin, coniseine** and **similar alkaoids** that paralyze motor nerves. Used in medicine for its narcotic activity, but is no longer used since it is a very poisonous drug.

Fruits of the plant, **Fructus Conii (Conii fructus)** also contains similar alkaloids and if it is confused with anise fruits, leads to intoxication.

It is one of the most poisonous plants in the world. The famous Greek philosopher Socrates was convicted to drink the juice of the plant. He recorded the changes in his body after drinking the poison till he died.