

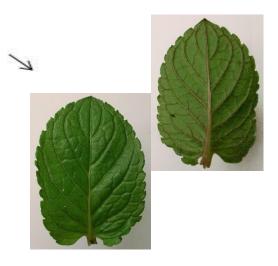


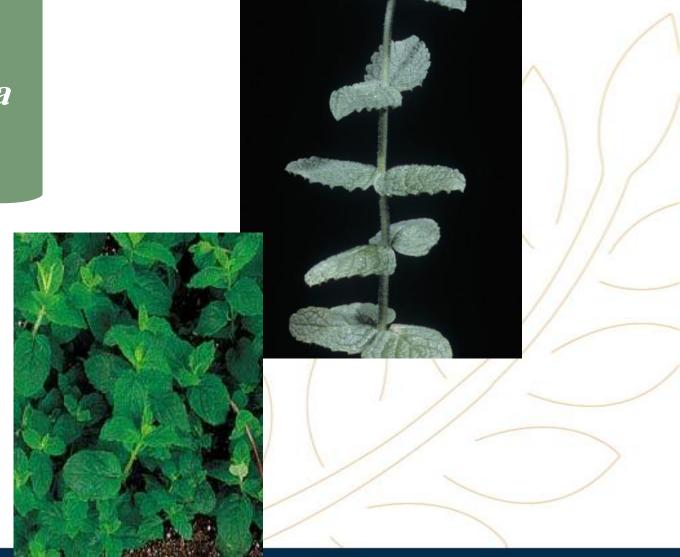
By the end of the lecture, students should be able to demonstrate knowledge of:

Herbs containing volatile oils *e.g.* mentha, thyme, basil, rosemary and artemisia

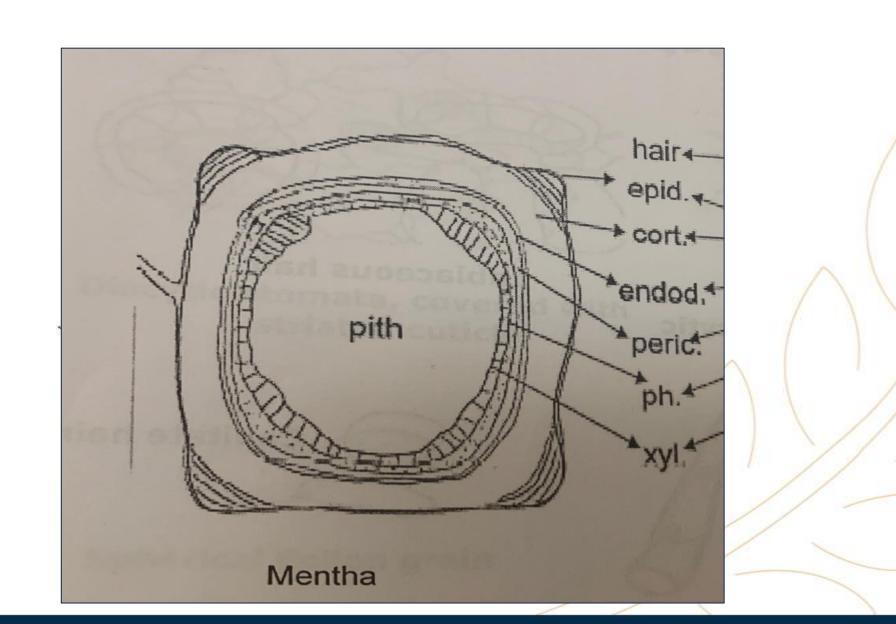
## PEPPERMINT HERB

Origin: Is the dried leaves and flowering tops of *Mentha piperita*F. Labitae





## T.S of Mentha Herb:



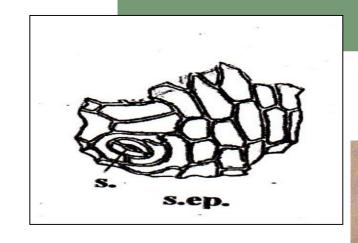
#### **Powder:**

**Odour**: aromatic

**Taste:** aromatic

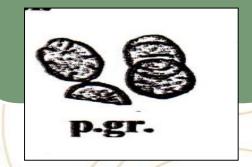
with cold sensation

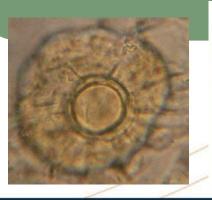
Epidermal cells of the leaf with diacytic stomata.

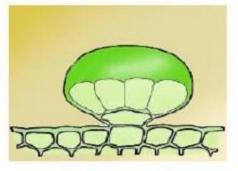


Multicellular, uniseriate non glandular trichomes and glandular labiaceous hairs and unicellular stalk unicellular head hairs

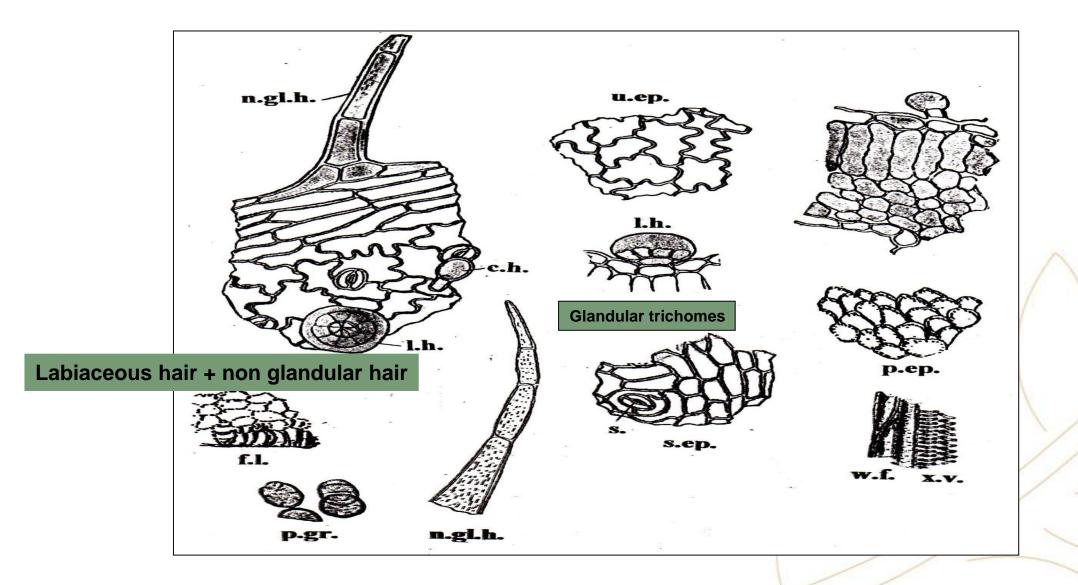








#### **Powdered Mentha**





1-Volatile oil mainly menthol, menthyl acetate, menthone & menthyl isovalerinate

2-Tannins

**3- Flavonoids** 

#### USES:



• Local action: antipruritic, mild local anesthetic and antiseptic

• Systemic action: carminative and gastric sedative

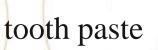
• Flavouring agent

Candies& chewing gums











## CHEMICAL TEST

1- Oil with a mixture of glacial acetic acid and nitric acid give blue colour change to golden yellow when heating on water bath

2-Few dps of Few dps of vanillin/H<sub>2</sub>SO<sub>4</sub> vanillin/H<sub>2</sub>O Few dps of conc. H<sub>2</sub>SO<sub>4</sub> **Crystals** Orange yellow colour Violet colour

## Thyme herb

Thyme is the dried leaves and flowering tops of *Thymus vulgaris* Family Labiatae.



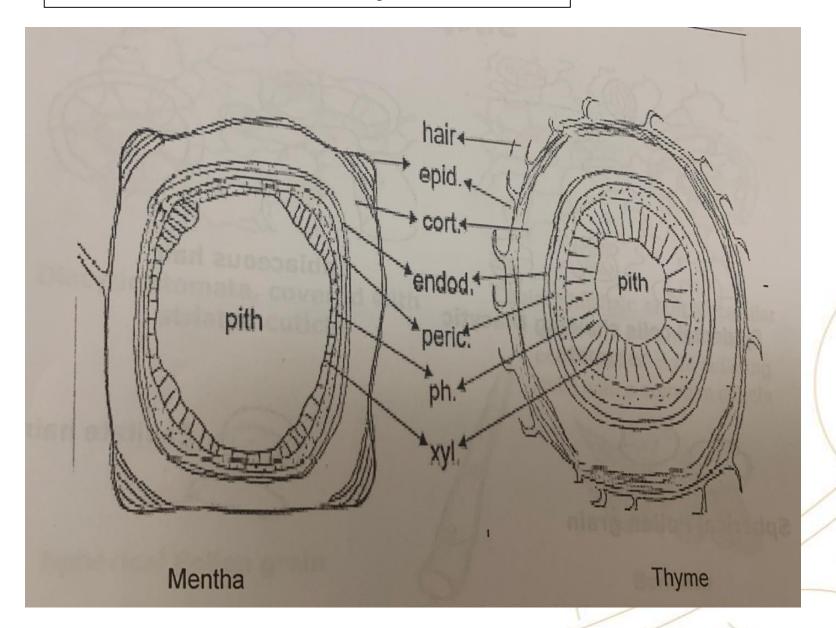
Odour :aromatic
Taste: aromatic
pungent.
The herb is short,
grayish brown
and hairy

Active
Constituents
Volatile oil
Thymol, Carvacrol
Linalool, Broneol
and Bornylacetate.

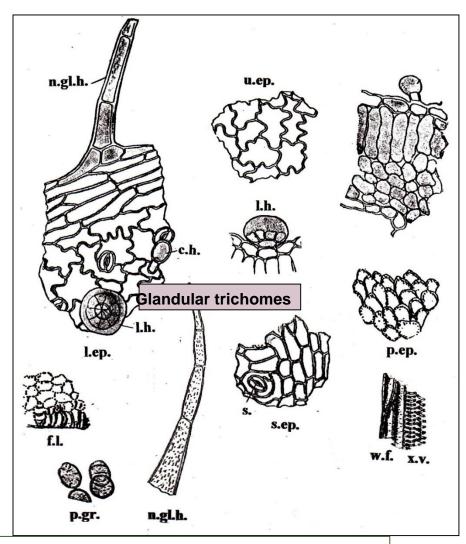
## **Chemical test**

Thymol crystals + 1 ml glacial acetic acid + 6 drops conc  $H_2SO_4$  + 1 drop  $HNO_3 \rightarrow$  deep bluish green

## T.S of Mentha & Thyme Herb:



#### **Powdered Mentha**



Labiaceous hair + non glandular hair

#### **Powdered Thyme**

Non glandular hairs are present on both surfaces being uniseriate sharply pointed often bent near the base as well as labiaceous hairs.



## USES



- 1- Used for bronchitis, whooping cough and upper respiratory tract infections.
- 2- The oil is used as carminative, antispasmodic



4- Antifungal for skin infection







## Sweet basil (ocimum) herb

The dried leaves and flowering tops of *Ocimum basilicum* L. Family Labiatae





ACTIVE CONSTITUENTS

1-Volatile oil mainly linalool, eugenol, geranial, methyl eugenol, 1,8-cineole, and other compounds.

2-Tannins

3- Flavonoids& phenolic acids

### USES

• Antiviral activity toward SARS-CoV-2. due to its monoterpenes and flavonoids

#### Antibacterial

- Leaf extract administered orally had the potential to improve neuromuscular coordination, active behavior, the ability to recognize objects, and short-term memory
- A great wound healing ability
- Antiinflammatory effect
- Combat <u>anxiety</u>, <u>depression and insomnia</u>
- Aid in weight loss.

## **Rosemary Herb**

The dried leaves and flowering tops of

Rosmarinus officinalis L. Family Labiatae





ACTIVE CONSTITUENTS 1-Volatile oil mainly 1,8cineole, α-pinene, αterpineol, verbenone, limonene, bornyl acetate, terpinolene and camphor

2-Tannins

3- Flavonoids & phenolic acids

## USES

- •Antioxidants and anti-inflammatory in the treatment of diabetes mellitus
- •Enhancing memory and concentration &prevent brain aging

## AS A COSMECEUTICAL

- •Rosemary helps to balance sebum
- •Protect skin cells from damage







#### Artemisia herb

The dried leaves and flowering tops of

Artemisia annua L. Family Asteraceae



ACTIVE CONSTITUENTS 1-Volatile oil mainly
Monoterpenes such as
Artemisia ketone, camphor,
camphene, borneol, a-pinene,
and 1,8-cineole
sesquiterpenes; such as

2-Artemisinin

3- Coumarin

Germacrene A

## USES

•Artemisinin is well established for the <u>treatment of malaria</u>, including highly drugresistant strains

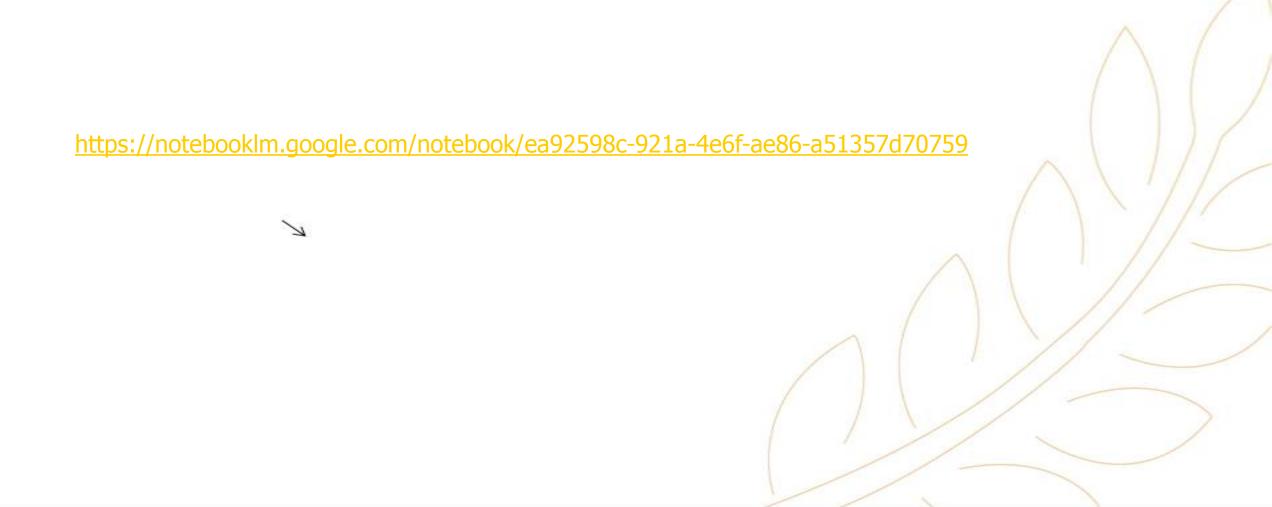
nutricost

Artemisinin

- •Anti viral against SARS-CoV-2 and its rapidly evolving variants
- •Anti inflammatory
- •Anti cancer

•It is considered as a promising component to be used in wound healing applications

## Activity







# Thank You!

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