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A REVIEW ARTICLE ON PHYTOMEDICINE "CORIANDER"

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ABSTRACT :- Coriander (coriandrum sativum l.)is an annual herb and it is most commonly used flavoring and seasoning purpose. All parts(plant seeds,leaves,flower and roots) of coriander can be used and processed. Belonging to the family apiceae, it is a potential of lipid(rich in petroselinic acid) and essential oil (0.03-2.6%)(rich in linalool)isolated from seeds and aerial parts. It has wide pharmacological activities such as anti-oxidant, anti-microbial, anti-diabetic, anti-epileptic, anti -mutagenic, anti- depressant, anxiolytic, anti-hypertensive, anti-inflammatory, neuroprotective and diuretic. The various part of this plant contains monoterpenes, alpha-pinene, limpnene, gama-terpinene, p-cymene ,citronella, flavonoids, coriandronsA-F, dihydrocoriandrin, geranilol, camphor, berneol.it is use in foods due to numerous health benefits and it's protective effect to protect food for longer time period.

KEYWORDS- introduction, biological source, geographical source, botanical classification, macroscopic characters, microscopic characters, cultivation, chemical constituents and pharmacological uses.

INTRODUCTION :-

In India, coriander is known as ‘dhania’ in Hindi language.Coriander, (Coriandrum sativum), also called cilantro or Chinese parsley, feathery annual plant of the parsley family (Apiaceae),The small flowers are pink or whitish and are borne in umbel clusters.Coriander is one of the oldest herbs and spices on record.Its use by the Romans and by Hippocrates and other Greek physicians is documented.Coriander was known as far back as 5000 bc and is mentioned

in the Bible in Exodus 16:31. Coriander is the name for the leaves and stalks of the plant, while the dried seeds are called coriander seeds. Coriander is a small, almost round, ridged seed ranging in color from wite to yellowish brown.

Fig -Dry Coriander Green Coriander

BIOLOGICAL SOURCE :-

Coriander consists of dried ripe fruits of Coriandrum sativum Linn., belonging to family Umbelliferae.

GEOGROPHICAL SOURCES :-

India it is cultivated in Maharashtra, U.P., Rajasthan, Jammu, and Kashmir. It is also found in a antiwild state in the east of England.Cultivated in Central and Eastern Europe, particularly in Russia, Hungary, in Africa and India.

BOTANICAL CLASSIFICATION-

Family Apiaceae – Carrot family

Genus Coriandrum L. – coriander P

Species Coriandrum sativum L. – coriander P

Class Magnoliopsida – Dicotyledons

Subclass Rosidae

Order Apiales

Subkingdom Tracheobionta – Vascular plants

Superdivision Spermatophyta – Seed plants

Division Magnoliophyta – Flowering plants

Kingdom Plantae – Plants

EXTERNAL VIEW :-

Size-2 to 5 mm in diameter and 4 to 30

mm in length

Shape- sub-globular

Colour- straw yellow

Odor- aromatic odor

Taste- spicy

MICROSCOPIC CHARACTER :-

The endosperm cells are thick-walled an polygonal in shape and contain aleurone grains, fixed oil and micro resettes of calcium oxalate. Two yellowish brown vittae are present on the inner surface of each mericarp.

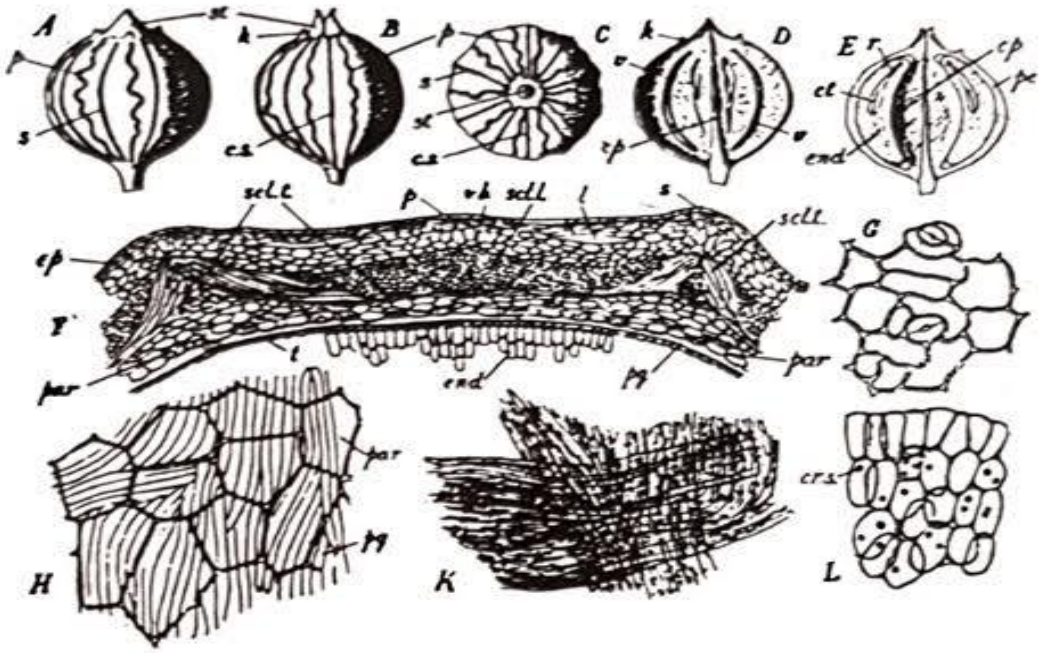

Fig - microscopic character of coriander

Epicarp: it contains Polygonal cells with occasional stomata and also contains a calcium oxalate crystal.

Endocarp: In endocarp Elongated cells are present and forming parquetry layer. Sclerenchyma in tangential and longitudinal bands. In Mesocarp Inner and outer layer of parenchyma with sclerenchyma in between.

CULTIVATION OF CORIANDER FOR SOIL PREPRATION :-

Climate-Cool and comparatively dry, frost free climate

Season-June - July and October - November

For cultivation of coriander the field should be loamy soils or Well drained silt are suited for cultivation, temperature range of 20 – 25 °C and pH should be 6 – 8.

Chemical constituents -

It contains chemical compounds as follows-borneol, geraniol, linalool, naryl acetate, camphor, dodecanal, and some essential oil as nonane, cubenol, E-2 undecenal, phyton, tetradecane.

Pharmacological uses-

It is pharmacologically used in

1) anti-oxidant,

2) anti-epileptic,

3) anti-mutagenic,

4) anti-depressant,

5) anxiolytic,

6) anti-hypertensive,

7) anti-inflammatory,

8) neuroprotective and

9) diuretic.

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