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Review Article

AN OVERVIEW ON CORIANDER

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ABSTRACT

Coriander (botanical name: *coriandrum sativum Linn*), is a herbal plant also referred to as store house for bioactive compounds, belonging to the family Apiceae or umbelliferae. All the parts of this herb are valued for its culinary and medicinal uses such as anti-microbial, anti-oxidant, anti-diabetic, an xiolytic, anti-epileptic, anti-depressant, anti-mutagenic, anti-inflammatory, anti-dyslipidemic, anti-hypertensive, neuro-protective and diuretic. Coriander possesses both nutritional as well as therapeutic properties. Coriander is used in the preparation of many household medicines to cure bad cold, seasonal fever, nausea, vomiting, stomach disorders and also used as a drug for indigestion, against worms, rheumatism and pain in the joints. The plant is a rich source of lipids i.e rich in petroselinic acid and an essential oil i.e high in linalool which is isolated from the seeds and the aerial parts of coriander, leaves are rich in vitamin A conent.

Key Words: *coriandrum sativum Linn,* neuro-protective, anti-dyslipidemic

INTRODUCTION:

Coriander (botanical name :*coriandrum sativum Linn.*) also called cilantro, are dried fruits of plant *coriandrum sativum* , belonging to family Apiceae or Umbelliferae.

All the parts of coriander such as leaf, seed and fruits have culinary as well as medicinal use.

Figure1.1: coriander leaves

Table No 1.1: Coriander Description

Synonyms (Other names)	Coriander fruits, Cilantro, Dhania Chinese Parsley, Coriandre, Coriandri Fructus, Coriander Essential Oil, Dhanyaka, Koriander, Kustumburi, Persil Arabe, Persil Chinois
Botanical Name	*Coriandrum sativum Linn.*
Family	Apiaceae or Umbelliferae
Geographical Source	Holland , Russia, Hungary,Egypt, Morocco and India (Andhrapradesh , Maharashtra , West Bengal , Uttar Pradesh,Rajasthan)
Hazarads	Narcotic effect , Photosensitivity and Allergic reactions

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CULTIVATION & COLLECTION

Coriander is a tropical crop. It can be grown in loamy or black soil. Alkaline soil should be avoided. It is sown by drilling method, generally in the month of october – november.

Irrigation of coriander depends on climate, soil, moisture. Harvesting is done after 100 days of growth when 50% of seeds turn yellow .It requires optimum temperature of 20 to 26°c for growth. 70% of global requirement of coriander is produced in india. are sub globular, crowned by the remains of sepals and styles, primary ridges 10, wavy and slightly inconspicuous secondary ridges 8, straight, and more prominent.

Figure 1.2: coriander (powder, leaves, fruits)

MICROSCOPIC CHARACTERISTICS

The epidermis of pericarp is made up of polygonal tubular cells. Two layers inner and outer layer of parenchyma is present in mesocarp. Between two layers of parenchyma a layer of sclerenchyma is present. Endosperm consists of fixed oil globules whereas vittae consist of volatile oil.

CHEMICAL CONSTITUENTS

Coriander consists of volatile oil (0.3 to 1%), proteins (20%). The volatile of coriander consist of D-linalool(68%) ,gerniol (10%) , pinene (10.5%).It also consist of coriandryl acetate, L-borneol, fixed oil(13%).It is rich in vitamin A content.fruit yields 5-7% ash.

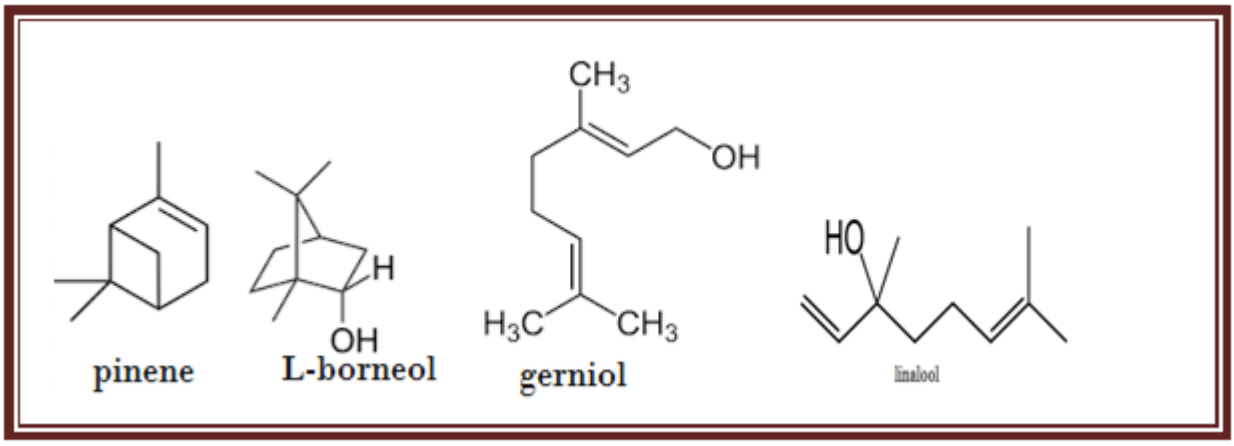

Figure 1.3: chemical constituents

NUTRITIONAL CONSTITUENTS:

Coriander consist of Water (7.3g), Food energy (279kcal), Protein (21.83g), Fat (4.76g), Carbohydrates (52.10g), Ash (14.02g), Calcium (1.246mg), Phosphorus (481.00mg), Sodium (211.00mg), Potassium (4.466mg), Iron (42.46mg) Vit –A (566.7mg).

USES:

- Coriander is commonly used as flavouring agent. Widely used as an important spice. Coriander is a commonly used in domestic remedy.
- It is used as carminative, stimulant, Diuretric, Dyspeptic, Anti pyretic, antioxidant.

- It is used in the treatment of skin inflammation , high cholesterol levels, diarrhea, mouth ulcers, anemia, menstrual disorders, smallpox, conjunctivitis, skin disorders, blood sugar disorders, measles, hemorrhoids, toothaches, worms, and joint pain.
- Coriander is used for digestion problems including upset stomach, loss of appetite, hernia, nausea, bowel spasms, and intestinal gas.
- It is also used to treat bacterial and fungal infecion.
- It is used to prevent food poisioning.
- The paste of coriander is used to cure headace.
- Coriander leaf is used as refrigerant.
- Internally coriander is used in tonics.
- Internally it is used to cure vertigo, memory loss.
- It is given in snake bite as antidote.
- It is also used for eye care.
- coriander plays a protective role against the deleterious effects in lipid metabolism in experimental colon cancer.

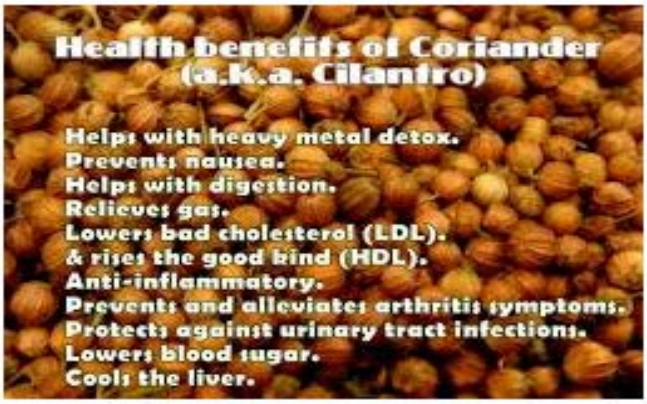

Figure 1.4: uses of coriander

DOSES:

Dose of coriander depends according to the person's age , health and other conditions.consultancy of pharmacist or physician is neccessary. Prefered dose is : 1-3 g in powder form.

SIDE EFFECTS:

- It is photosensitive, so risk for sunburns and skin cancers. It may cause ellergic reactions including rash, itching,dizziness, or trouble breathing.
- Coriander may increase the effectiveness of oral antibiotics.
- Coriander might decrease blood pressure. So may cause problem to people with low blood pressure.
- Coriander can cause damage to the liver functions due to the extraordinary volatile constituents.
- It may cause narcotic effect when taken in large quantities.

CONCLUSION:

Coriander (*coriandrum sativum)* is a volatile oil widely used as spice an also for medicinal uses. It is a tropical crop. All the the parts of coriander are important. It is used as stimulant, sedative, antioxidant, Diuretric, Dyspeptic and Anti pyretic. It exibhits antibacterial and antifungal activity. It is rich in vitamin A content.

It causes some side effects such as photosensitivity, ellergies , narcotic effect, liver damage. For doses, pharmacist or physicians advice should be prefered.

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