AN OVERVIEW ON CORIANDER

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INTRODUCTION:
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, anxiolytic, 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 content.

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

**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, anxiolytic, 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 content.

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

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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)](image)

MICROSCOPIC CHARACTERISTICS
The epidermis of pericarp is made up of polygonal tubular cells. Two layers of 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.

![Figure 1.3: chemical constituents](image)

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 consists of coriandryl acetate, L-borneol, fixed oil (13%). It is rich in vitamin A content. Fruit yields 5-7% ash.

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, diuretic, 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 infections.

It is used to prevent food poisoning.

The paste of coriander is used to cure headache.

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.

**DOSES:**

Dose of coriander depends according to the person’s age, health and other conditions. Consultancy of pharmacist or physician is necessary. Preferred dose is: 1-3 g in powder form.

**SIDE EFFECTS:**

- It is photosensitive, so risk for sunburns and skin cancers. It may cause allergic 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 and also for medicinal uses. It is a tropical crop. All the the parts of coriander are important. It is used as stimulant, sedative, antioxidant, Diuretic, Dyspeptic and Anti pyretic. It exhibits antibacterial and antifungal activity. It is rich in vitamin A content.

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

**REFERENCE:**
