

COMPREHENSIVE REVIEW OF DRUG JEERAKA (*CUMINUM CYMINUM LINN.*)Vd. Shweta G. Sevankar\*<sup>1</sup> and Dr. Indira Ujagare<sup>2</sup><sup>1</sup>MD Scholar, Rasashastra Dept. T.A.M.V. Pune.<sup>2</sup>HOD & Professor, Rasashastra Dept. T.A.M.V. Pune.

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**ABSTRACT**

Jeeraka is a flowering plant in the family Umbelliferae. Jeeraka is mentioned in haritakyadi varga in Bhavprakash Nighantu. It has been used as therapeutic agent for treatment of different diseases. It contains important phytoconstituents such as cuminaldehyde, cymene and terpenoids are the major volatile components of cumin oil. The present review is an attempt to generate interest regarding its immense potential in preventing & treating several common diseases.

**KEYWORDS:** Jeeraka, *cuminum cyminum* Linn.**INTRODUCTION**

Jeeraka is mentioned in Haritakyadi varga in Bhavprakash Nighantu.

“जीरकोजरणो अजाजीं कणास्यादीर्घजीरकः।

जीरकत्रितयं रुक्षं कटुष्णं दीपनं लघु ॥

संगाहीपित्तलं मेध्यं गर्भाशयविशुद्धिकृत्।

ज्वरघ्नं पाचनं वृष्यं बल्यं रुच्यं कफापहम् ॥

चक्षुष्यं पवनआध्मानगुल्मच्छदर्यतिसारहृत् ॥”

भावप्रकाशनिघण्टुहरितक्यादिवर्ग

Jeeraka is ushna in veerya i.e. hot potency. It is ruchya (improves taste), deepan (increases digestive fire), vaminut (decreases vomiting) etc.

Jeeraka belonging to umbelliferae family. *Cuminum cyminum* is a small annual herb which grows up to 30 – 50 cm in height. Cumin seeds resemble caraway seeds, being oblong in shape, longitudinally ridged & yellow brown in colour. Jeeraka mainly helps in digestive tract disorders. It is also used in treatment of fever, heart related diseases, respiratory diseases etc.

Jeeraka is cultivated in India, Italy, Bangladesh, China etc. The important growing states in India are Rajasthan, Tamil Nadu, Maharashtra, Bihar, Madhya Pradesh etc. Nutritional value of Jeeraka is very important. It is rich in essential oil, vitamins, potassium, dietary minerals etc.

**Aim**

To perform literature review of Jeeraka.

**Objectives**

1. To make compilation of relevant data about Jeeraka from relevant literature & methodical classification of compiled data.
2. To study & understand its importance & therapeutic utility.

**Literature Referred**

Concerned Ayurvediya texts, relevant modern literature, all concerned previous research work, dissertations, articles, internet information sources, various websites are referred.

**Historical Review**

Many references of Jeeraka can be traced in various texts namely

1. Sushruta Samhita
2. Bhavprakash Nighantu
3. Dhanvantari Nighantu
4. Nighantu ratnakar
5. Database
6. Indian Materia Medica

**Botanical Identity**

Botanical Name: *Cuminum cyminum* Linn.

Family – Umbelliferae

Varieties – Shwetajeeraka (*cuminum cyminum* Linn.)

Krushnajeeraka (*carum bulbocastanum*)

**Vernacular Names**

1. Bengali name – Jeera, Sadajeere, Shahajeere, Jeere
2. Hindi name: Safed Jeera, Jeera, Sada jeera, Sadarana jeera
3. Marathi name – Jire, Pandare jeere

4. Gujarati name – Jeeru, Shakanu jeerum, Sadu jeerum, Gholu jeerum
5. Tamil name – Cheerakam, Shiragam,
6. Telugu name – Jeelakari, Jelakara, Jeela karara
7. Kannada name – jeerige
8. Malayalam name – Jeerakam
9. Arabian name – kammun, Avyaja
10. Farsi name – Jeera e safed

#### Taxonomical Classification

Kingdom	Plantae
Subkingdom	Streptophyta
Superdivision	Spermatophyta - <i>Seed plants</i>
Division	Magnoliophyta - <i>Flowering plants</i>
Class	Magnoliopsida - <i>Dicotyledons</i>
Family	Umbelliferae
Genus	Cuminum
Species	Cuminum cyminum

#### Synonyms

Jeeraka, jaran, dirghajirak, ajaji, kanavha, kanajirna, dipya, sitajaji, shuklajaji, dirghak.

#### Cultivation and Propagation

Cultivation of cumin requires a long, hot summer of three to four months, with daytime temperatures around 30°C (86°F); it is drought tolerant, and is mostly grown in Mediterranean climates. It is grown from seed sown in spring, and needs a fertile, well-drained soil.

#### Morphological Characters of Jeeraka

##### Fruit & seed

The fruit of the cumin plant is dry, conical shaped, less than 1/4 inch in length, and covered with minute hairs. The fruit does not split open when ripe. It contains a single seed that is harvested by hand and is then used as a spice. The seed is yellow-brown to gray, having eight ridges with oil canals.

##### Flower

Small flowers sit on top of the stems forming umbels. Each umbel has 5 to 7 umbellets, or clusters, that make a canopy, giving it a fluffy appearance. Flowers have both male and female structures.

##### Leaf

Leaves are divided into long narrow segments similar to fennel, but much smaller. Leaf colour is deep green, sometimes turning black at the ends. The upper leaves have very short stalks and lower leaves have longer stalks.

##### Stem

Stems are slender, 8 to 12 inches tall, 1 1/4 to 2 inches in diameter, branched into 2 or 3 subbranches, glabrous. Branches reach similar heights, so it forms a uniform flat canopy of flowers.



IMG. 1: Cuminum Cyminum.



Plant. IMG. 2: Seeds.

#### Pharmacological Description

“तीक्ष्णोष्णं कटुकं पाके रुच्यं पित्ताग्निवर्धनम् ॥

कटु श्लेष्मानिलहरं गन्धाद्यं जीरकद्वयम् ॥”

सु.सु. 46/229

Jeeraka is pungent in taste, hot in potency, improves taste perception, stimulates the digestive fire and promotes

digestion, It is fragrant, improves intellect, alleviates kapha dosha and vaat dosha.

शुक्ल अजाजी कणा ख्याता दीर्घक कणजीरकः ।

स्तन्यो दीर्घकणा गौरजीरको दीर्घजीरकः ॥

गौराजाजी हिमा रुच्या कटुमधुरदीपनी ।

कृमिघ्ना विषहन्त्री च चक्षुष्याधिमाननाशिनी ॥

ध.नि. शतपुष्पादिवर्ग ६८/६९

Ruchya – improves taste  
 Deepana, Agnivaradhana – Improves digestion strength  
 Grahi, Sangrahi – absorbant, useful in malabsorption syndrome and diarrhea,  
 Medhya – improves intelligence  
 Garbhashaya Vishuddhikrut – cleanses and detoxifies uterus. Hence it is widely used in post partum care of the mother.  
 Jvaraghna – Useful in fever  
 Pachana – carminative  
 Vrushya – natural aphrodisiac  
 Balya – improves strength and immunity  
 Chakshushya – good for eyes, improves vision power

शुभजीरं कटु ग्राहि पाचकं दीपनं लघु ।  
 किंचित उष्णं च मधुरं चक्षुष्यं रुचिकृन्मतम् ॥  
 गर्भाशय शुद्धिकरं रुक्ष बल्यं सुगन्धिकम् ।  
 तिक्तं वमि क्षयाध्मानवातं कुष्ठं विषं ज्वरम् ॥  
 अरोचकं रक्तदोषम् अतीसारं कृमीस्तथा ।  
 पित्तं च गुल्मरोगं च नाशयेद इति कीर्तितम् ॥  
 नि. र. गुणदोषप्रकरण

Gulma – Abdominal tumor, bloating  
 Adhmana – bloating, gaseous distension of abdomen  
 Atisara – diarrhea, dysentery  
 Grahani – malabsorption syndrome  
 Krumi – worm infestation  
 Chardi – vomiting  
 Kshaya – chronic respiratory disorders leading to emaciation  
 Kushta – skin diseases  
 Visha – Aconitum ferox poisoning  
 Jvara – fever

### Cumin according to Dosha

#### Cumin for vata

For people with high **Vata**, Cumin seeds are administered along with sesame oil. It can be fried in sesame oil and taken.

#### Cumin for Pitta

Cumin is hot in nature, so also Pitta Dosha. Hence, you need to take it with coolant and that balances Pitta

### Ayurveda medicines

Medicines	Uses
Hingwastak Churna	Useful in indigestion
Dhatri Rasayan	Useful in indigestion, cold, cough, asthma etc.
Jeerakarishyam	Useful in post natal care of the mother
Yogaraj Guggul	Useful in various joint disorders.

powerfully. For this purpose, Cumin is fried with ghee or coconut oil for Pitta.

Ghee is told as the best remedy for Pitta. It counters the gastric irritation effect of Jira.

Coconut oil, being nourishing and cooling is very effective in countering hotness of cumin and Pitta Dosha.

### Cumin for Kapha

Cumin naturally balances down Kapha Dosha. Hence, dry fried cumin can be readily given to Kapha persons. If you wish to enhance the taste of cumin, then you can administer along with honey. Of all the liquids for Kapha balance, honey is said to be the best.

### Chemical Constituents

**Seed:** Cuminin, Diacyl glycerol, Imperatorin, Isoimperatorin, Isoimpinellin, Oxypeucedanin, Apigenin, Apiin, Oxalic, Cuminaldihyde, P – cymene.

**Fruit:** Fatty oil, Resin, Mucilage, Protein compounds.

### Nutritional Value

One table spoon of cumin seed contains 22 calories, 1.07 g of protein, 1.34 grams of fat, 2.65 g of carbohydrate which includes 0.6 g of fiber and 0.14 grams of sugar. The same tablespoon serving provides 0.25 % of vitamin K, 49.75% iron, 5.60% of calcium and 0.56% of vitamin C.

Cumin contains thymol, that helps promote the production of saliva, bile and other enzymes responsible for food digestion. The aromatic compound Cuminaldehyde helps to induce secretion of digestive juices just by the aroma.

Cumin is a rich source of iron A spoonful of cumin is useful to reduce body fat and thus useful in weight loss treatment.

Cumin is anti-congestive agent and is a good expectorant, due to its rich essential oils. Hence useful in cough, cold and bronchitis.

Cumin contains riboflavin, vitamin B6 and niacin – useful in improving cognitive functions of brain.

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