

Traditional uses of *Nigella sativa*, in Malegaon region of Nashik - A Review

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ABSTRACT

Nigella sativa this plant seeds used lager in folk medicine for curing the various ailments in Malegaon. Plants have always been a major source of nutrition and health care for both humans and animals. This article reviews the main reports of the pharmacological, traditional value and folk remedies of this herb, of *N. sativa* and its constituents. *Nigella sativa* commonly known as Kalonji is an annual flowering plant, native to southwest Asia. Seeds and their oil have a long history of folklore usage in various systems of medicines and are used in food as well as medicine which may help the researchers to set their minds for approaching the utility, efficacy and potency of *Nigella sativa*.

Key words: - Malegaon, *Nigella sativa*, Ailments, Folk medicine

INTRODUCTION

Malegaon is located on the Mumbai-Agra national highway (N.H.03) at the confluence of Mausam and Girna Rivers. Situated on the road linking Mumbai and Agra — now National Highway No 3 — it was once a small junction known as *Maliwadi* (hamlet of gardens) and quickly gained the reputation for being a source of employment. When a local jahagirdar, Naro Shankar Raje Bahadur, started building a fort in the area in 1740, a project that took 25 years, a sizeable number of Muslim workers and artisans from places like Surat and northern India settled in the area. After the British capture of the Malegaon fort in 1818, Muslims from Hyderabad migrated to the region. The 1857 revolt saw many Muslims from the north locate themselves here, and the pattern kept repeating itself over the years. Malegaon, with its growing Muslim presence, became something of a shelter and a source of employment for the community whenever it faced reversals. If famine in 1862 forced Muslim weavers in the Varanasi area to move to Malegaon, the political upheavals in the Hyderabad of the late 1940s and 1950s saw a similar exodus to the town. Communal riots, especially from the 1960s onwards, have also undoubtedly contributed to swelling the number of Muslim migrants to Malegaon.¹ Now a days population of Malegaon above 10 lacks and 80% population is belong to Muslim communities, having traditional work power looms famous all over India, remaining 20 % belonging Hindus both of them are used traditional systems of medicine like Ayurveda, Siddha and Unani and unorganized systems like folk medicine have been flourishing well. *Nigella sativa* this plant seeds used much more in folk medicine for curing the various ailments.

Nigella is a genus of about 14 species of annual plants in the family Ranunculaceae, native to southern Europe, North Africa and Southwest Asia. Common names applied to members of this genus are **Devil-in-a-bush** or **Love in a mist**. The plant grows to 20-90 cm tall, with finely divided leaves, the leaf segments narrowly linear to threadlike. The flowers are pale blue or pale purple, with 5-10 petals. The fruit is a capsule composed of several united follicles, each containing numerous seeds²

Nigella sativa commonly known as karayal (English: Small Fennel, Black Cumin; Sanskrit: Kalonji, Kalajira, Kalajaji) is an annual flowering plant, native to southwest Asia. The plant is indigenous to the Mediterranean region but now found widely in India (Jammu, Kashmir, Himachal Pradesh, Bihar, Assam and Punjab). The herb is also cultivated in Bengal and north-east India³.

Morphology: - It is small prostrate annual herb about 45 cm high 2-3 slender leaves pinnatisect, 2-4 cm long cut into linear segment, segments oblong. Flowers pale, blue on solitary long peduncles, seeds trigonous and black in colour. The plant has a rather stiff, erect, branching stem, bears deeply-cut grayish-green leaves and terminal grayish blue flowers, followed by odd, toothed seed vessels, filled with small somewhat compressed seeds, usually three-cornered, with two sides flat and one convex, black or brown externally white and oleaginous, strong agreeable aromatic odour, like that of nutmegs, and a spicy, pungent taste. The flowers are delicate, and usually colored pale blue and white, with 5–10 petals (Photo plate). The fruit is a large and inflated capsule composed of 3–7 united follicles, each containing numerous seeds. It has a pungent bitter taste and a faint smell of strawberries^{4,5}.

Scientific Classification⁶

Kingdom	: Plantae
Division	: Magnoliophyta
Order	: Ranunculales
Family	: Ranunculaceae
Genus	: <i>Nigella</i>
Species	: <i>sativa</i>

Folk medicine

According to Zohary and Hopf, archeological evidence about the earliest cultivation of *N. sativa* "is still scanty", but they report that *N. sativa* seeds have been found in several sites from ancient Egypt, including Tutankhamun's tomb. Although its exact role in Egyptian culture is unknown, it is known that items entombed with a pharaoh were carefully selected to assist him in the after life⁷. In Islam, it is regarded as one of the greatest forms of healing medicine available. **The Islamic prophet Muhammad once stated that the black seed can heal every disease except death.** Avicenna, most famous for his volumes called The Canon of Medicine, refers to *Nigella* as the seed that stimulates the body's energy and helps recovery from fatigue and dispiritedness. It is also included in the list of natural drugs of 'Tibb-e-Nabavi', or "Medicine of the Prophet (Muhammad)", according to the tradition "holds onto the use of the black seeds for healing all diseases. In the Unani Tibb system of medicine,

N. sativa is regarded as a valuable remedy for a number of diseases. The seeds have been traditionally used in the Middle East and Southeast Asian countries to treat ailments including asthma, bronchitis, rheumatism and related inflammatory diseases, to increase milk production in nursing mothers, to promote digestion and to fight parasitic infections. Its oil has been used to treat skin conditions such as eczema and boils and to treat cold symptoms. Its many uses have earned *Nigella* the Arabic approbation 'Habbatul barakah', meaning the seed of blessing^{8,9}. Karayal seeds and their oil have a long history of folklore usage in Arabian and Indian civilization and are used in food as well as medicine. The seeds are used as flavoring, to improve digestion and produce warmth, especially in cold climates. They are sometimes scattered in the folds of woolen fabrics to preserve them from insect damage^{10, 11, 12, 13, 14, 15}.

Chemical Composition

The seeds also contain numerous esters of structurally unusual unsaturated fatty acids with terpene alcohols (7%); furthermore, traces of alkaloids are found in the seeds. The seeds also contain a fatty oil rich in unsaturated fatty acids, mainly linoleic acid (50 - 60%), oleic acid (20%), eicodadienoic acid (3%) and dihomolinoleic acid (10%) which is characteristic for the genus. Saturated fatty acids (palmitic, stearic acid) amount to about 30% or less. Commercial nigella oil ("Black Seed Oil", "Black Cumin Oil") may also contain parts of the essential oil, mostly thymoquinone, by which it acquires an aromatic flavor¹⁶.

Photo plate: 1



(A: - Plant body. B: - Flower, C:- Capsule, D:- Enlarge view of seeds, E:- seeds, F:- seeds oil, G:- seeds extracts containing Honey, H:- Capsule prepared by seeds.

Pharmacology:- In the traditional system of medicine practiced in the Arabian Gulf region, Black Seed is recommended for a wide range of ailments, including fever, cough, bronchitis, asthma, chronic headache, migraine, dizziness, chest congestion, dysmenorrhea, obesity, diabetes, paralysis, hemiplegic, back pain, infection, inflammation, rheumatism, hypertension, and gastrointestinal problems such as dyspepsia, flatulence, dysentery, and diarrhea. It has been used as a stimulant, diuretic, emmenagogue, lactagogue, anthelmintic, and carminative¹⁷. Black Seed has also been used externally where it is applied directly to abscesses, nasal ulcers, orchitis, eczema, and swollen joints. The results of extensive pharmacological studies justify the broad, traditional therapeutic value of Black Seeds. These studies found Black Seed to have analgesic,¹⁸ anti-lipemic,^{19,20} post coital contraceptive,²¹ diuretic and antihypertensive,²² bronchodilator and calcium antagonist,²³ histamine release inhibitor,²⁴ hepatoprotective,²⁵ anthelmintic,²⁶ antifungal,²⁷ antimicrobial (against a wide range of organisms),²⁸ anticancer,²⁹ and anti-inflammatory activities.

CONCLUSION

Herbs are the natural drugs used to regain the alterations made in normal physiological system by foreign organisms or by any malfunctioning of the body. The WHO has already recognized the contribution of traditional health care in tribal communities. It is very essential to have a proper documentation of medicinal plants and to know their potential for the improvement of health and hygiene through an eco friendly system. Thus importance should be given to the potentiality of studies as these can provide a very effective strategy for the discovery of useful medicinally active identity. A detailed and systematic study is required for identification, cataloguing and documentation of plants, which may provide a meaningful way for the promotion of the traditional knowledge of the herbal medicinal plants. The present review reveals that *Nigella sativa* is used in treating various ailments. It elicits on all the aspects of the herb and throws the attention to set the mind of the researchers to carry out the work for developing its various formulations, which can ultimately be beneficial for the human beings as well as animals

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