

Kasuri Methi Production: A Comprehensive Guide

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Abstract:

Kasuri methi is a cherished leafy vegetable and spice in India, prized for its unique taste and scent. This herbaceous plant grows abundantly, bearing vibrant orange to yellow flowers and small, curved pods. Highly esteemed for its green foliage, both fresh and dried leaves are esteemed for enhancing the flavor of diverse dishes. Recognized for their nutritional value, including vitamins, minerals, and fiber, green leafy vegetables like kasuri methi play a vital role in promoting health. With its nutrient-rich composition and culinary adaptability, kasuri methi remains an indispensable ingredient in Indian cuisine, celebrated for its widespread use and significance.

Introduction:

Kasuri methi (*Trigonella corniculata* L.) is a popular leafy vegetable used as a spice in India. This herbaceous plant grows in a bushy manner and exhibits slow growth, remaining in a rosette condition for most of its vegetative growth period. It produces bright orange to yellow flowers and yields sickle-shaped pods that are smaller compared to common methi varieties. Kasuri methi is cultivated primarily for its green herbage, which can be consumed fresh or dried. The dried leaves are particularly valued as a spice, adding both aroma and flavor to various culinary dishes. Green leafy vegetables, including kasuri methi, are widely utilized in various cooked and processed forms due to their nutritional benefits. They serve as an excellent source of vitamins, minerals, and dietary fiber. Fenugreek green leaves, for instance, provide approximately 35 kilocalories per serving and boast a nutritional composition comprising 86.1% moisture, 4.4% protein, 0.9% fat, 1.1% fiber, 6.0% other carbohydrates, and 1.5% ash. Additionally, fenugreek leaves are rich in vitamins, containing notable amounts of carotene (2.34 mg), thiamine (0.04 mg), riboflavin (0.31 mg), nicotinic acid (0.8 mg), and vitamin C (52.0 mg) per 100 grams of edible portion.

In summary, kasuri methi stands out as a valuable culinary ingredient appreciated for its distinctive flavor profile. Moreover, its nutritional richness, particularly in terms of vitamins and minerals, contributes to its widespread usage and recognition as a beneficial addition to various cuisines. Kasuri methi, also known as dried fenugreek leaves, is a versatile herb with a wide range of culinary and medicinal uses. Here's a detailed overview of its uses:

Culinary Uses:

Flavor Enhancer: Kasuri methi adds a distinct flavor and aroma to dishes, often described as slightly bitter with a hint of sweetness. It is commonly used in Indian cuisine to enhance the taste of curries, dals (lentil dishes), vegetable dishes, and meat preparations.

Spice Blend Ingredient: Ground kasuri methi is often used as an ingredient in spice blends and masalas, such as garam masala and curry powder, to impart its characteristic flavor to dishes.

Garnish: Kasuri methi leaves are frequently used as a garnish for various dishes, including soups, salads, and snacks, adding both flavor and visual appeal.

Bread and Baked Goods: Kasuri methi is sometimes added to bread dough or incorporated into baked goods

like parathas (Indian flatbreads), naan, and savory biscuits to infuse them with its unique flavor.

Medicinal Uses:

Digestive Aid: Kasuri methi is known for its digestive properties and is often used to alleviate indigestion, bloating, and constipation. It can be consumed as a tea or included in dishes for its digestive benefits.

Blood Sugar Regulation: Some studies suggest that fenugreek, the primary component of kasuri methi, may help regulate blood sugar levels in individuals with diabetes or insulin resistance. It may improve insulin sensitivity and reduce blood sugar spikes after meals.

Cholesterol Reduction: Fenugreek has been shown to potentially lower cholesterol levels, particularly LDL (bad) cholesterol, which may help reduce the risk of heart disease and stroke.

Lactation Support: In traditional medicine, fenugreek seeds, and leaves are believed to stimulate milk production in breastfeeding mothers. It is often consumed in the form of tea or added to foods to support lactation.

Other Uses:

Aromatherapy: Kasuri methi leaves are sometimes used in aromatherapy due to their pleasant aroma, which is believed to have calming and relaxing effects.

Hair Care: Fenugreek seeds are used in various hair care treatments, such as hair masks and oils, to promote hair growth, strengthen hair follicles, and reduce dandruff.

Overall, kasuri methi is prized for its culinary versatility and potential health benefits. Whether used as a flavoring agent in dishes or consumed for its medicinal properties, kasuri methi remains a popular and valuable herb in many cultures around the world.

Climate and Soil:

Kasuri methi thrives in a cooler climate and requires moderately cool temperatures during vegetative growth and relatively high temperatures for ripening and seed yield. It is tolerant to drought but prefers frost-free conditions. The ideal soil type is loamy or sandy loam with good drainage and a pH range of 6-7. Rich organic content in the soil is beneficial for kasuri methi cultivation.

Field Preparation and Sowing Time:

Prior to sowing, the soil should be ploughed thoroughly to achieve fine tilth. Kasuri methi is typically sown in December, although timing may vary based on location and climatic conditions. Seed germination occurs within 6-8 days of sowing.

Spacing and Seed Rate:

Seeds should be sown at a spacing of 20-30 cm apart in rows, with a planting depth of not more than 0.5 cm. The recommended seed rate is 30-35 kg per hectare, and seeds are usually broadcast uniformly.

Seed Treatment:

To improve germination and seedling survival, seeds can be soaked in a solution of 0.6% EMS or cocycle solution. Pre-soaking seeds in water for 2 days is also beneficial. Additionally, seed treatment with Rhizobium culture enhances field inoculation and promotes healthy growth.

Manure and Fertilizer:

Field preparation should include the incorporation of 15-20 tons of manure per hectare to enrich soil fertility. Kasuri methi requires minimal nitrogen fertilizer but benefits from a balanced NPK application of 30:25:40 kg/ha at the time of sowing.

Use of Growth Regulators:

Spraying with ascorbic acid and GA3 can improve plant growth, flowering, and seed production, leading to higher yields.

Irrigation:

Proper irrigation management is crucial, with the first irrigation given immediately after sowing followed by subsequent irrigations at 7-10 day intervals. Excessive irrigation should be avoided to prevent root rot disease.

Intercultural Operations:

Hoing, weeding, and thinning should be carried out as needed to control weeds and promote plant growth. Top dressing with nitrogen fertilizer can be done after alternate cuttings.

Pest and Disease Management:

Common diseases affecting kasuri methi include damping off, powdery mildew, rust, and leaf spot. Disease control measures include fungicide drenching and dusting with sulphur. Insect pests such as leaf-eating caterpillars and pod borers can be managed with appropriate insecticides.

Harvesting and Yield:

Kasuri methi is typically harvested 70-160 days after sowing, depending on the variety and season. Harvesting involves pulling out the entire plant, sun-drying the bundles, and separating the seeds. Multiple cuttings can be obtained, with yields ranging from 90-100 q/ha of leaves and 900-1000 kg/ha of seeds.

Storage:

Seeds should be stored in poly-lined gunny bags with an initial moisture level of 7-8% and at an equilibrium relative humidity of 40%.

Conclusion:

Successful kasuri methi production requires careful attention to climate and soil conditions, proper field management practices, and effective pest and disease control measures. By following the guidelines outlined in this article, farmers can optimize yields and ensure the quality of their kasuri methi crop.

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