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Coriander

The Under-valued Crop

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Coriander is an annual herb. It is a member of the carrot family (Umbelliferae/Apiaceae) and often used in flavouring substances. It is the most broadly used medicinal plant, acquiring nutritional as well as medicinal properties. It is a culinary and medicinal herb that is native to the Mediterranean region but is widely grown throughout North Africa, Central Europe, and Asia. *C. sativum* is useful in food preparation (as a flavouring agent and adjuvant) and preservation as well in preventing food borne diseases and food spoilage (Mandal *et. al.*, 2015). It contains an essential oil (0.03 to 2.6%) (Nadeem *et. al.*, 2013).

All parts of this plant are edible, although they have very distinct flavours and uses

(Wangensteen *et. al.*, 2004). In the Mediterranean region, the whole dried seeds are pulverised and frequently used as a spice or condiment. In Indian cuisine, they are a key component of curry powder. Additionally, seeds are used to flavour a variety of dishes,

including meat and fish as well as baked goods and confections. The fresh plant (stem and leaves) is used as an herb for culinary purposes. High vegetarian diet of Indian peoples extremely uses these spicy leaves in

various dishes such as chutneys and curries (Nadeem *et. al.*, 2013).

Scientific classification	
Kingdom	Plantae
Division	Magnoliophyte
Class	Magnoliopsida
Order	Apiales
Family	Apiaceae
Genus	<i>Coriandrum</i>
Species	<i>sativum</i>



Fig. Coriander plant leaves and seeds

Coriander Botany

Habit

The plant is a thin stemmed, small, bushy herb, 25 to 50 cm in height with many branches and umbels.

Stem

The plant produces a slender hollow stem 30 to 60 mm (1 to 2.5 inches).

Leaves

Alternate, compound. The whole plant has a pleasant aroma.

Inflorescence

Compound umbel comprises 5 smaller umbels. The small flowers are pink or whitish.

Fruit: Globular, 3 to 4 mm diameter, when pressed break into two locules each having one seed. Fruit has delicate fragrance; seeds are pale white to light brown in colour at maturity.

Coriander used in food and industries

The liqueur industry, chocolate manufacture, the pharmaceuticals industry, and the soup

industry all utilise coriander essential oil to flavour their products. The bees can generate 500 kg of honey from one hectare farm coriander (Alhubaishi *et. al.* 1987). Green coriander has a lot of vitamins A, C and B, which is abundant use of coriander in preparing soups, salads, dessert, and spice (Maroufi *et. al.*, 2010).

Therapeutic value of coriander

Coriander has been used in medicines for thousands of years (Mathias, 1994). Higher concentration of the bioactive compounds seen in plants leaves showed higher antioxidant activities (Ganesan *et. al.*, 2013). Coriander leaves are also rich in phytochemicals such as polyphenols, carotenoids, and essential oil like linalool, which shows higher free radical scavenging activity includes DPPH and FRAP (El-Ghorab *et. at.*, 2007), (Ganesan *et. al.*, 2013).

Coriander is primarily used in modern medicine as a flavouring agent in medicines and as a stomach soothing addition to more irritating compounds. For upset stomach and flatulence relief, chew on coriander seeds or drink a tea made from the seeds (Maroufi *et. al.*, 2010). It is used in the treatment of skin inflammation,

high cholesterol levels, diarrhoea, mouth ulcers, anaemia, menstrual disorders, smallpox, conjunctivitis, skin disorders, blood sugar disorders, measles, hemorrhoids, toothaches, worms, and joint pain. (Deeksha *et. al.*, 2015)

Coriander has been reported to own strong lipolytic activity (Leung *et. al.*, 1996), and, as an affiliate of carrot family, its use has been suggested with caution, because of potential allergic reactions from furanocoumarins (Brinker, 1998). Coriander crude extract is highly effective role on the antitumor effect of colon cancer and found to be highly efficient (Chithra *et. al.*, 2000). Another potential compound such as pthalides found in coriander also showed potential anticancer effect (Ganesan *et. al.*, 2013). Coriander seeds and leaves boost the amount of antioxidants in meals, which likely stops food from oxidatively deteriorating. The seeds and leaves of coriander can therefore be employed as a possible source of antioxidants and food flavour. Therefore, it is conceivable that coriander is a feasible crop. Each component of the crop has some commercial value. The undiscovered and idle potential of this plant can be investigated further through research.

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