Plant profile
4. Plant Profile

**Cucumis Trigonus:**

*Cucumis Trigonus* is a perennial tendrilar of the mallow family *Cucurbitaceae* native to India found in and upper gangetic plain, and the latter on the lower range of western Himalayas. Also found in areas of Ceylon, Afghanistan, Persia, and North Australia (Kiritikar and Basu, 1999).

**Plant Introduction**

- **Botanical Name**: *Cucumis trigonus*.
- **Family**: Cucurbitaceae.
- **Synonyms**: Jangal indrayan.
- **Parts Used**: Seed, Roots, Fruits
- **Chemical constituents**: Linoleic acid, lectin, cephalin and cerebroside

**Vernacular Names:**

- English: Bitter guard
- Hindi: Jangal indrayan
- Sanskrit: Indravaruni, Vishala
- Tamil: Kattummatti

**Botanical Description:**

Fruits ellipsoid or subglobose, 3.8 by 3.2 cm, longitudinally variegated with 10 green striped, pale yellow when ripe, with bitter pulp. Seeds while, ellipsoid, not margined (Warrier and Nambiar, 1995).

**Chemical Constituent:**

Plant contains Alnusenone and alnusenol, fruits contains cucurbitacine D and E, steroids, seeds contain fatty oil. The ethanolic extract of this plant showed the presence of alkaloids, flavonoids, tannins, saponins, steroids. Terpenoids, resin and glycosides (Deshpande, 2007; Ulubelen, 1976).

**Traditional Uses:**

In Traditional System of Medicine Fruit and roots of this plant have medicinal values (Naveena, et al, 2004). The fruits are used in flatulence, leprosy, fever, jaundice, diabetes, cough, bronchitis, ascites, anaemia, constipation, other abdominal disorders
Plant profile

and amentia. (Naik et al, 1981). In addition, fruit pulp is bitter, acrid, thermogenic, anthelmintic, liver tonic, cardio tonic, appetizer, expectorant and intellect promoting (Kirtikar and Basu, 1999). The green fruits, slightly sour; stomachic; cures “Kapha” and biliousness; increases “Vata”. The dried fruit is indigestible; astringents to the bowels; improves taste; cures “Kapha’ and biliousness (Ayurveda).the pulp of the fruits is very bitter and is a drastic purgative. A decoction of the roots is preferred as being milder in its operation and causing less irritation. The seeds are cooling and astringents, and useful in bilious disorders.

Pharmacological Studies.

The plant is reported to possess analgesic, anti-inflammatory and diuretic activity which was attributed to a glycoside fraction contained in the alcoholic extract of this plants. Plant its proteolytic and serine protease activity has been reported (Naik et al, 1980). The aqueous fruits extract of *Cucumis trigonus* has had beneficial effects in reducing the elevated blood glucose level and lipid profile of STZ- induced diabetic rats (Salahuddin and Jalalpure, 2010) and also therapeutic and prophylactic value in the treatment of myocardial infraction (Thippeswamy et al, 2009). The alcoholic fruit extract of *Cucumis trigonus* could afford highly significant protection against CCl₄ induced hepatocellular injury (Patil et al, 2011).
Plant profile

Figure 4: *Cucumis Trigonus* Roxb.