

## GOKHARU.

**SYNONYM:** Puncture vine, Gokshur, land caltrops

**B.S.:** Dried fully rippen fruit of the plant *Tribulus terrestris* Linn.

**Family:** Zygophyllaceae



- **Geographical Source:** distributed in warmer region of the world. India, Shri lanka and west Tibet. Flower in rainy season and collect in October and November.
- It is annual or biennial.

# Cultivation & Collection:

- Propagated by seed.
- Fresh seed exhibit seed dormancy & few will germinate immediately after development.
- Seeds are dormant over the autumn & winter months & germinate in late spring & early summer when conditions are moist.
- High temperatures are needed for germination and growth.
- Yellow flowers can appear within 3 weeks.
- Fruits are produced continuously through the summer & autumn months.
- A single plant can produce as many as 400 fruits.

- **Morphology:**
- Color: fruit are greenish to gray
- Odour: odourless
- Size: 1 – 1.5 cm
- **Shape:**
- **Stem:** Annual herb with diffused stem
- **Branches:** flexuous covered with silky thread like hair
- **Leaves:** paripinnate (6-7pairs of leaflet which ar narrow-elliptic with round base & apex.)
- **Flowers:** yellow flower are borne solitary & auxillary.
- **Fruit:** is weapon-wheel shaped containing 5 parts & it is yellow in color. Each part has 2 long sharp rigid spines, several shorter spines & surface covered with many hairs.

- **CHEMICAL CONSTITUENTS:**

- It contains steroidal saponin like Dioscin, protodiscin, diosgenin, gitogenin, chlorogenin & rusogenin.
- Roots & leaves are also contain saponin.
- Flavanoids, kaemferol, tribuloside and its derivative also been isolated from leaves & fruits.
- Fixed oil (3.5%), resin, traces of essential oil & nitrates are also found in fruits.

- **Use:** diuretic (large amount of essential oil & nitrates). Plant & dried spiny fruit is used for spermetorrhoea, phosphaturea, dysuria, gonorrhoea, gleet, chronic cystitis, calculous affection, incontinence of urine & impotency.

- **TYPICAL PREPARATIONS:**

- Dashmoolaristha & chyavanprash.

- **Bara Gokharu:** *pedalium murex* (pedaliaceae). Found near the sea coast of india.
- **C & C:** The fruit contain fatty oil, mucilage, alkaloid & resin.
- **Used:** Diuretic, in dysuria & gonorrhoea.