



SIGMA[®]
UNIVERSITY

Portulaca



Synonym

- Gujarati: મોટી લુણી (Moti Luni), લાખા લુણી (Lakha Luni)
- Hindi: ઘોલ (Ghol), કંદલી (Kandli)
- English: Littlehogweed, Pursley, Pigweed

Botanical name

- *Portulaca oleracea*.

Family

- Portulacaceae

Chemical Constituents

- Fatty Acids: High in omega-3 fatty acids, especially α -linolenic acid in leaves (35.4-54.9%), with palmitic acid and linoleic acid predominating in stems.
- Macronutrients: Leaves are rich in proteins, carbohydrates (glucose and fructose mainly), and various minerals like calcium, iron, potassium, manganese, and phosphorus.

- Organic Acids: Includes oxalic acid, malic acid, citric acid, and quinic acid, with oxalic acid content higher in leaves.
- Vitamins: Particularly α -tocopherol (a form of vitamin E).

Therapeutic Uses

- Antidiabetic: It helps regulate blood sugar, improves insulin sensitivity, and modulates lipid metabolism
- Antimicrobial: Exhibits antibacterial, antifungal, and antiviral activity against pathogens like *Staphylococcus aureus*, *Escherichia coli*, *Candida albicans*, and *herpes simplex virus*
- Antioxidant: Rich in vitamins A, C, and E, as well as flavonoids and betalains, it enhances antioxidant enzymes and reduces oxidative stress damage

Marketed Preparations

- Cosmetic Ingredients: *Portulaca oleracea* extract is widely used in skincare products such as serums, moisturizers, anti-aging creams, sunscreens, and anti-inflammatory or soothing products for sensitive skin

- Functional Food Products: Purslane is incorporated into breads, pasta, and juices to enhance antioxidant content, omega-3 fatty acids, vitamins, and phenolics, aiming to provide anticarcinogenic and health-promoting effects