

Botanic name : *Trifolium pratense* L.-- Sp. Pl. 2: 768. 1753 [1 May 1753] (IK)

Common name : Red clover, Purple clover

Family : Fabaceae (Leguminosae)

Habitat : Terrestrial

Distribution : Native to Europe (national flower of Denmark) and North Asia. Widely cultivated as a forage plant across the world and now becomes invasive in Indian subcontinent, USA and some islands with its strong allelopathic potential, good establishment after germination and wide adaptability

Description : Perennial herb; stem ascending, erect, branched; leaves alternate, stipulate, compound, often in three leaflets, leaflets lanceolate-elliptic, entire to finely toothed at margins often with white botches, stipule bristled; flowers irregular, calyx 5-lobed; corolla 5, violet-red, vexillary in aestivation, stamens 10, monocarrellary gynoecium; fruits pod

Phytochemicals: Isoflavones, coumestrol, formononetin, daidzein, biochanin A- phytoestrogen, cyanogenic glycosides, coumarin derivatives, phenolic glycosides, sitosterols, coumarins, flavonoids, & allelochemicals like 1,3-dioxolane, (6aR, 11aR)-maackiain, and (6aR, 11aR)-trifolirhizin etc.

Medicinal/Economic uses : In India, in traditional medicine as antispasmodic, anti-inflammatory and antidermatosis, expectorant, deobstruent, and sedative. A tea of the flowering heads and various other topical preparations of the plant have been used for medicinal purposes in Europe. Red clover has been widely used in folk medicine for conditions ranging from athlete's foot to constipation. An extract of the flowers has been used for cancerous ulcers and corns. Red clover contains isoflavones and a herbal product sold in tablet form is taken by women during and after the menopause. In alternative medicine, red clover is promoted as a treatment for a variety of human maladies, including coughs, disorders of the lymphatic system and a variety of cancers. However, according to the American Cancer Society, "available clinical evidence does not show that red clover is effective in treating or preventing cancer, menopausal symptoms, or any other medical conditions". Dietary amounts of red clover are safe, but medicinal quantities may cause rash-like reactions, muscle ache, headache, nausea, vaginal bleeding in women, and slow blood clotting. Due to its activity on oestrogen receptors (Coumestrol), red clover is contraindicated in people with a history of breast cancer, endometriosis, ovarian cancer, uterine cancer, uterine fibroids or other oestrogen-sensitive conditions, although some authors have suggested the high isoflavone content counteracts this. Due to its coumarin derivatives, the plant should be used in caution in individuals with coagulation disorders or currently undergoing anticoagulation therapy. Economic-Used extensive in fodder mix and attracts a variety of insects and is useful for improving the biodiversity of agricultural systems, and can be used as a bee plant for honey production (Kew).