



## Bio-herbicidal Potential of Essential Oil of *Callistemon* - A Review

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**Abstract:** *Callistemon* is an aromatic genus of family Myrtaceae. It possesses essential oil in almost all parts of the plant body. The oil is characterized by the dominance of monoterpenes viz. 1,8-cineole,  $\alpha$ -pinene and  $\alpha$ -terpineol. It has been reported to inhibit germination and early growth of many agricultural and wasteland weeds by altering the photosynthetic and respiratory metabolism of target plants. There are many scientific reports which confirm its antimicrobial, insecticidal, anti-inflammatory and antioxidant properties. This review discusses the morphological, physicochemical and allelopathic properties of essential oil of *Callistemon* with a view to explore its bio-herbicidal potential.

**Keywords:** Bio-herbicide, *Callistemon*, Essential oil, Monoterpenes, Weed management

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