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Senna (Cassia angustifolia Vahl.): Recent advances in pharmacognosy and prospects of cultivation in India

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ABSTRACT: Senna (Cassia angustifolia Vahl.) is a native of tropical Africa and was introduced in 11th century in Tamil Nadu state of India. Sennosides A and B, extracted from senna leaves and immature pods are utilized for its purgative, antimicrobial, anticancer and antioxidant properties. Sennosides A and B (sterioisomers of dihydrodianthraone glucosides) contribute more than 80% of the biological activity of senna. It's extract possesses antibacterial and antifungal activity against a number of microorganisms like E. coli, Klebsiella pneumonia, Shigella shinga, S. aureus, S. typhi, Aspergillus terrus, Aspergillus flavus, Aspergillus niger, Aspergillus junii, S. mercescens and P. aerogenosa. Senna can be grown as an annual or perennial crop depending upon climatic conditions prevailing in the cultivating area. During rainy season, crop is affected by attack of white flies hence proper management of harvesting period can have a great impact on getting disease free plant produce. Due to its potential usage in a number of drugs, Senna finds a very good demand in international market. An important point to be noted is that Senna is not yet being produced commercially in other parts of the world except India. Hence, there is a scope for its large scale production in India and successful export of this valued medicinal herb worldwide. Production of leaves vary from 4,500-6,000 tonnes per year depending upon the area. About 80% of the production is exported with an earning range of Rs. 35-36 crores per annum. Senna holds a good demand in industrial sector as well as an attractive herb for research field. Different aspects and recent advances related with medicinal property, pharmacognosy and cultivation has been reviewed in the article. Apart from that, areas where there is a scope to explore tremendous new findings has been explained in the present review with special reference to Cassia angustifolia Vahl.

Key Words: Pharmacognosy, senna (*Cassia angustifolia*), cultivation, soil and climatic conditions, irrigation, weeding and Intercultural practices, sennosides A and B, chemistry-pharmacology, medicinal value.