

RESEARCH ARTICLE

Phytochemical Investigation and Hypoglycaemic Effect of *Cajanus cajan*

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ABSTRACT:

The human beings utilized diverse plant sources from time immemorial for the treatment of various diseases based on trial and error and acquired experience. Extensive usage of various plant parts as panacea was described in ancient books of Ayurvedic System of medicine especially in Charaka Samhita (3000-2000 BC). Plant parts are not only used to cure illnesses but also administered to boost up the physical immunity. In most of the cases, plants contain very low quantities of pharmacologically active compounds. All over the world, the research on plants in order to find out pharmacologically active components has been increased enormously. A large number of evidences have been found to reveal the huge potential of plants for pharmaceutical application. Therefore plant sources have become a key target to explore new pharmacologically active compounds and pharmaceutical additives. *Cajanus cajan* is growing widely throughout the tropical and subtropical countries in the world. It is traditionally used in Ayurveda, Siddha and Unani. Its medicinal usage has been described in several diseases in all medicinal systems.

Chemical groups such as 2'-o-methylcajanone; 5,2'-dihydroxy-7,4'-dimethoxyisoflavone; 5,2',4'-trihydroxy-7-methoxyisoflavone; 5,2'-dihydroxy-7,4'-dimethoxyisoflavone; 5,7,2',4'-tetrahydroxyisoflavone; 5,7,4'-trihydroxyisoflavone; 7-hydroxy-4'-methoxyisoflavone; alpha-copaene are mainly believed to be responsible for its various therapeutic actions.

It is used as hypoglycemic, hepato-protective, nephroprotective, anticytotoxic, immunomodulatory, antioxidant and anti-osteoporotic agents. Therefore it is worthwhile to review its therapeutic properties to give an overview of its status to scientists both modern and ancient. This review also encompasses on the potential applications of the *Cajanus cajan* (Arhar) plant in the pharmaceutical field due to its wide pharmaceutical activities.

KEYWORDS:

INTRODUCTION:

Cajanus cajan (Pigeonpea) is cultivated in tropical and subtropical countries as an important pulse or grain legume crop or eaten green as a vegetable. The extensive survey of literature revealed that *Cajanus cajan* is an important medicinal plant with diverse pharmacological spectrum^{1-12,18,19}

Cajanus cajan is widely used in Ayurveda, and Siddha. Further the plant is traditionally used for treatment of stomach problems, syphilis, anaemia, dizziness, epilepsy, cough, constipation, sore throat, worm infestation, insomnia, wounds, diabetes¹³⁻¹⁶.

Hence the plant provides significant role in the treatment and prevention of a diseases.

Further evaluation needs to be carried out to explore the unknown and concealed areas and their practical and clinical applications which can be used in the treatment and welfare of the mankind. Currently Diabetes mellitus

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