Seminar Notice

International Year of Chemistry - 2011 Seminar Series - 06

Department of Chemistry
Pondicherry University, Puducherry – 605 014

Title

STUDIES ON ARID ZONE PLANTS: SECONDARY METABOLITES AND BIOEFFICACIES

By

Dr. RENUKA JAIN
Department of Chemistry, University of Rajasthan,
Jaipur-302004

Date: 14th (Monday) November 2011

Time: 3.30 pm

Venue: Seminar hall, Department of Chemistry, PU

Head of the Department Seminar Convener

STUDIES ON ARID ZONE PLANTS: SECONDARY METABOLITES AND BIOEFFICACIES

Dr. RENUKA JAIN
Department of Chemistry, University of Rajasthan, Jaipur-302004

ABSTRACT: India is the seventh largest country in the world known for its rich flora, diverse climatic zone and wealth of ethnomedicinal tradition. It, therefore, offers an unrivaled opportunity for research in natural products. The scanty rainfall and weather conditions of Rajasthan, make it an arid zone possessing characteristic and sparse vegetation with unique properties, both in terms of phytochemicals and biological activities.

Plants are factories where a cell is able to synthesize a vast variety of natural products as result of various metabolic processes. Amongst these, the secondary metabolites are diverse group of chemicals which include phenols, flavonoids, alkaloids, terpenoids, etc. Although, these are not involved in the primary metabolic activities of the plants, they enhance the prospects of their survival. These are often restricted to a narrow set of species within a phylogenetic group, and created interest due to their biological effect on other organisms, thus, such phytochemicals are termed as bioactives. This has led to their utilization as drugs and more important as leads for the development of new synthetic drugs. These have also found use as flavours and fragrance, nutraceuticals, agrochemicals and natural dyes.

In view of this, systematic chemical investigation of a large number of arid zone plants belonging to diverse families viz. Caesalpiniaceae, Mimosaceae, Boraginaceae, Malvaceae, Moraceae, Euphorbiaceae and Aslepiadaceae has been carried out accompanied by the studies on their bioefficacy such antibacterial, antifungal, antiviral, antitumor, anti-inflammatory, analgesic, antidiabetic and antioxidant capability, using established protocols.