

SESSION VI: BOIDIVERSITY

AN ASSESSMENT ON NATURAL REGENERATION OF *Gymnema sylvestre*, A RARE MEDICINAL PLANTK K I U Arunakumara¹, U Wickramasinghe¹, B C Walpola² & S Subasinghe¹¹Department of Crop Science, Faculty of Agriculture, University of Ruhuna,²Department of Agricultural Chemistry, Faculty of Agriculture, University of Ruhuna

Gymnema sylvestre R.Br. belonging to family Asclepiadaceae, is naturally found in tropical forests of India and in some parts of Sri Lanka. This herb is best known for its ability to abolish the taste of sugar and has been used in the treatment of diabetes. A number of commercial herbal products are now available that contain varying amounts of gymnemic acids, the component responsible for the action against diabetes. Though the demand for the species is increasing rapidly, the commercial cultivation of the species is yet to be expanded. On the other hand it is felt that the natural regeneration of this important herb is poor and this study was carried out in Matara District of Southern Sri Lanka to assess the natural regeneration of the species.

An extensive survey was conducted in order to find the natural habitats and authenticity was confirmed for the mother plants found in the area. Flowering, fruiting and other important physiological phases of the plant were monitored and observations were made under natural conditions. Results revealed that *Gymnema* is propagated naturally by means of seed germination only. Flowering commences late in the year and mature pods release seeds from early February each year. The low moisture content of the seeds at the time of release together with dry environmental conditions result in very low germination and thus the natural regeneration of the species is poor though a single mother plant produces thousands of seeds at a season. Therefore, an alternative mode of multiplication should be made available in order to propagate and to conserve genetic stock of this useful plant.