EVALUATION AND IMPROVEMENT OF GERMLASM OF ALOE VERA L. FROM NORTH INDIA

Abstract

Supervisor: Prof. M.I.S. Saggoo

Submitted by: Ramandeep Kaur

There is large scale international trade in the medicinal plants. One such medicinal plant is *Aloe vera* (L.) Burm. f. (varn. Kuwaargandal, Gheekanwaar). *Aloe vera* L., a member of family Liliaceae is a xerophytic perennial plant with a short, cylindrical and simple stem. *Aloe vera* has been used medicinally for several thousands of years in many cultures. It has a long history dating from Biblical times. *Aloe vera* is cultivated throughout the world for its thick flesh. Due to vegetative mode of reproduction, spontaneous cytological and genetical aberration acquired by the plants can get fixed up in their genome. With more than hundred years of *Aloe* cultivation in India, the possibility of existence of genotypic variability in different clones cannot be ruled out. The present work was undertaken with aim of collection and screening of North Indian *Aloe vera* germplasm for morphological, cytological, biochemical and genetic variability. In the light of the results obtained, it is the well-considered opinion of the author that a two way approach viz. selection of an improved natural variant for development as cultivar and isolation of a high yielding cultivar from the selected genotype though *in vitro* studies/mutagenesis would be most fruitful for achieving the twin objectives of conservation of existing genetic diversity and sustainable utilization of this wonderful gift of GOD.