



## **Mulberry breeding strategies for North and North West India**

**Aftab A. Shabnam, S.S. Chauhan, Gulab Khan,  
Pawan Shukla, Pawan Saini and M.K. Ghosh**

*Central Sericultural Research and Training Institute, Pampore - 192 121, J&K, India*

### **ABSTRACT**

*Mulberry (*Morus ssp.*) is the soul food plant for silkworm (*Bombyx mori L.*). Bulk of the silk goods produced in the world is from mulberry silk. Thus for boosting sericultural economy, one of the major long standing approaches is both the qualitative and quantitative genetic improvement of mulberry for leaf yield, which determines the healthy and economical cocoon production. Central Sericulture Research and Training Institute, Pampore (Kashmir) is a major research Institute under Central Silk Board catering to the needs of the sericulture farmers in North and North Western India which include states such as Jammu and Kashmir, Uttarakhand, Uttar Pradesh, Himachal Pradesh, Punjab and Haryana. These states fall in the high altitude range of 1000 feet to 28250 feet above the sea level, with the climate varying from tropical to semi-arctic cold in Ladakh and could be delimited into four distinct agro-climatic zones such as cold arid zone, temperate zone, intermediate zone and sub-tropical zone. Due to these prevailing different agro-climatic conditions, the mulberry varieties and cultivation practice developed elsewhere cannot be adopted as it is into the region. Thus, it is highly essential to develop mulberry varieties suitable to this region to meet emerging challenges and to contribute substantially to the targeted bivoltine raw silk production of 20,000 MT in India by 2030 and also contribute in increasing the mulberry area to 3.86 lakh hectares from the existing 2.3 lakh hectares in India. Therefore, vigorous work in the frontier areas of Mulberry Breeding and Genetics such as molecular biology and biotechnology clubbed with traditional breeding approaches are required to create significant number of new mulberry varieties suitable to local agro-climatic conditions. Prospects and strategies for achieving this goal are discussed.*

**Keywords:** *Bivoltine, Breeding Objectives, Genetic Improvement, Mulberry, Silkworm.*