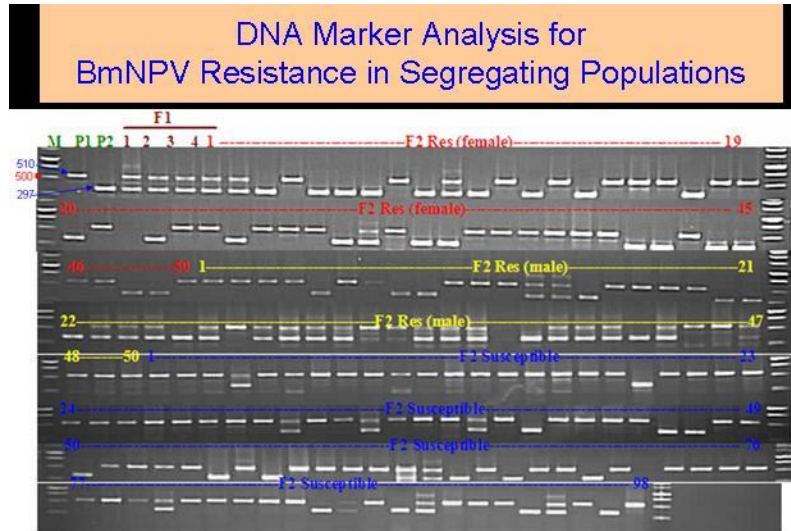


Marker Assisted Selection for breeding of bivoltine silkworm line with resistance to BmNPV

The *Bombyx mori* Nuclear Polyhedrosis Virus (BmNPV) causes grasserie disease in silkworms leading to major crop loss. At the onset, most divergent silkworm lines for BmNPV tolerance (Sarupat) and susceptibility (CSR2) were selected and mapping populations were developed. Three genes identified to be associated with BmNPV resistance in Sarupat



(polyvoltine) were introduced into recipient lines (CSR2) through Marker Assisted Selection (MAS). The lines developed were evaluated for BmNPV tolerance/resistance through virus exposure and for the presence of gene markers. Three bivoltine silkworm lines (MSN4, MASN6 & MASN7) thus developed revealed tolerance to BmNPV. Currently, the MASN lines and their hybrids (bi x bivoltine and poly x bivoltine) are under multi locational overall performance evaluation.

