

POTENTIAL MULTIVOLTINE SILKWORM PURELINES FOR PRODUCTIVE HYBRIDS OF DMMMSU SRDI

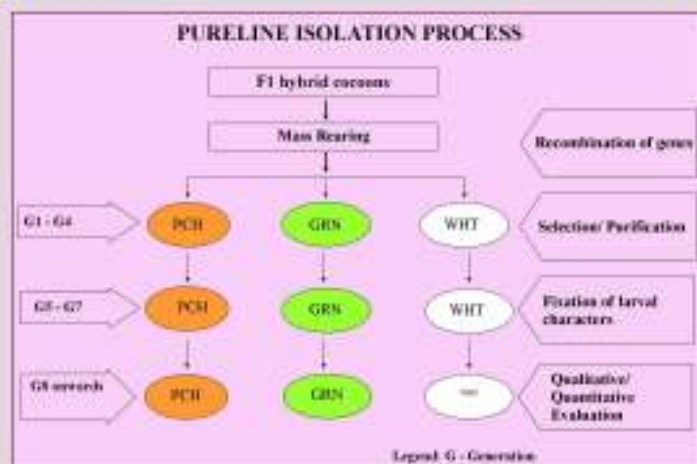
RATIONALE

One of the contributory factors in the success of sericulture industry is the silkworm breed. Silkworm breeds play an important role to make sericulture a successful occupation through sustainable cocoon yield with superior quality silk.

Therefore, selection and identification of potential parental stocks or lines are necessary in the development of productive F1 hybrids to attain the sustainability of the industry.



METHODOLOGY



F1 hybrid cocoons were collected locally in 2011. Following the process of pureline isolation, from G1-G4 mass rearing were conducted for recombination of genes. For the succeeding generations, cellular rearings for qualitative characters were done. Qualitative characters were fixed at G8.

The newly evolved purelines with green, white and peach colored cocoons are DMMMSU 1002, DMMMSU 1003 and DMMMSU 1016 respectively.

The performance of the newly evolved purelines was evaluated during November-December rearing season. Data were analyzed using ANOVA and LSD for further test of significance.

NEWLY EVOLVED MULTIVOLTINE PURELINES

DMMMSU 1003



Larval duration (days)	20-22
Cocoon shape	Peanut
Cocoon shell percentage (%)	20.28
Cocoon yield box-1(kg)	18.55

DMMMSU 1016



Larval duration (days)	20-22
Cocoon shape	Oval
Cocoon shell percentage (%)	20.81
Cocoon yield box-1(kg)	21.15

DMMMSU 1002



Larval duration (days)	20-22
Cocoon shape	Oval
Cocoon shell percentage (%)	19.78
Cocoon yield box-1(kg)	18.99

ADVANTAGES

- The newly evolved multivoltine silkworm purelines have the potential for the development of productive F1 hybrids for cocoon production that would provide a golden opportunity for the country's growing demand for silk.
- The newly evolved multivoltine purelines have the potential for handicrafts production that would provide employment and additional income for the rural folks.



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