

### Larvae and cocoons of M6DPC x SK4C

Parameters	Values
Shell percentage (%)	16.5-17.5
Filament length (m)	550-600
Renditta	9.0-9.5
Yield/100 dfls (kg)	52.0-57.0
Incremental benefit % over control	42.5%
Rearing condition	Temp.25-31°C;Humidity 75-80% (October- April)

Based on the better performance in the laboratory, this hybrid was subjected for multilocational trial at all the RSRs and RECs under this institute. The said hybrid was authorized by Central Silk Board in the year 2014 for commercial exploitation during favourable season.

Based on the encouraging results obtained by the farmers, this hybrid can be exploited on a large scale in the traditional sericultural states also



An ISO 9001:2008 Certified Institute

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## NEW PROMISING MULTIVOLTINE X BIVOLTINE HYBRID M6DPC x SK4C



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Among the mulberry silk producing states in India, West Bengal occupies 3rd position. Silkworm rearing is practiced mainly in the districts of Malda, Murshidabad, Birbhum and Nadia and about 90% of the total silk is produced by these districts. The other silk producing districts are Darjeeling, Coochbehar, Jalpaiguri, Bankura, Midnapore and Purulia. Small quantity of bivoltine cocoons are produced in the Darjeeling hills in two seasons (spring and autumn). The soil is alluvial, fertile with high water holding capacity. Rainfall is high (1500 to 3500mm) and fairly spread over most part of the year. The temperature even shoots upto 42°C during peak summer (May-June) and minimum temperature reaches as low as 5°C in severe winter (January) and humidity ranges between 40% and 95% in plains of West Bengal. The genetic potential of silkworm breed/hybrids are greatly influenced by variable fluctuating climatic condition of this region. Many productive and superior silkworm breeds/hybrids are developed and introduced to the field, because of the highly variable and fluctuating climatic conditions, however, only indigenous breed, Nistari is predominantly used by the farmers of this region.

Keeping this in view, attempts made by , CSR&TI, Berhampore has come out with highly productive silkworm breeds and hybrids ( both multivoltine and bivoltine ) suitable for highly fluctuating and varied agro-climatic condition particularly of this entire region. These efforts could make it possible to change the entire scenario of cocoon productivity per 100 dfls from 15-20 kg ( Nistari) to 55-65 kg/100 ( M6DPC x SK4C) as compared to the ruling hybrid Nistari x NB4D2 ( 40.0 kg/100 dfls).

The characteristic features of M6DPC, SK4C and M6DPC x SK4C are given below:

#### M6DPC



#### Larvae and cocoons of M6DPC

Parameters	Season	
	Unfavourable	Favourable
Fecundity	448	485
Pupation rate (%)	72.1	92.4
Yield/10000 Larvae (weight.)	8.447	10.070
Cocoon Weight.(g)	1.190	1.215
Shell percentage (%)	14.3	15.4
Filament length (m)	471	531
Denier (d)	2.36	2.34
Gain in cocoon yield over check	20.4%	23.0%

#### SK4C



#### Larvae and cocoons of SK4C

Parameters	Season	
	Unfavourable	Favourable
Fecundity	435	532
Pupation rate (%)	55.9	84.8
Yield/10000 Larvae (weight.)	6.793	12.796
Cocoon Weight.(g)	1.402	1.501
Shell percentage (%)	19.96	20.1
Filament length (m)	790	869
Gain in cocoon yield over check	68.5%	24.6%

#### M6DPC x SK4C

