Field Performance of M.Con.1 x B.Con.4

The said hybrid was authorized by Central Silk Board in the year 2010 for commercial exploitation. Then, this hybrid was reared by the farmers of West Bengal and Jharkhand states during Aghrayani, 2013 and realized encouraging results and the performance of which is depicted below:

Sl. No.	Name of the Test Centre	No. of farmers	Dfls reared	Yield/100 dfls (kg)	Yield range
1	REC, Kamnagar	30	3000	66.28	66.6-70.7
2	REC, Rajmahal	14	700	70.54	65.0-77.5
3	REC, M.P.Raj	16	800	54.88	48.6-58.5
4	REC, Mothabari	23	3000	62.66	57.5-65.0
5	DoT(Seri), Murshidabad	17	1700	60.63	52.0-67.5
6	ZSSO, Malda	17	1650	63.98	53.0-59.5
	Total / Average	**124**	**11150**	**62.89**	

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

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NEW PROMISING MULTIVOLTINE X BIVOLTINE HYBRID

M.Con.1 x B.Con.4

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Eastern India is generally characterized by luxuriant growth of mulberry for its highly fertile soil and rainfall. But, rearing of productive silkworm breeds and hybrids are restricted due to highly variable climatic situation, which causes poor larval growth, moulting disorder and severe mortality of silkworm caused by diseases and ultimately leading to low cocoon yield . In this region, fluctuating climate restricts rearing of highly productive silkworm hybrids because of poor survival and as a result, stakeholders are compelled to rear hardy multivoltine silkworm strain (Nistari) with extremely poor productivity and quality, thus leaf conversion efficiency into good quality cocoons becomes very poor. In eastern and north eastern part of India, during favourable season multivoltine x bivoltine hybrids could be reared. Earlier many productive multivoltine breeds were developed and combined with bivoltines for rearing during favourable seasons. However, none of these breeds could sustain in the field due to various reasons. Therefore, Nistari x NB4D2 continued to dominate the uptake of dfls by the farmers.

To combat the situation, 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 dfls through the development of congenic hybrids (M.Con.1 x B.Con.4) as compared to the ruling hybrid Nistari x NB4D2 (40.0 kg/100 dfls).

The characteristic features of M.Con.1, B.Con.4 and M.Con.1 x B.Con.4 are given below:

M.Con.1


Larvae and cocoons of M.Con.1

Parameters	Season	
	Unfavourable	Favourable
Fecundity	434	453
Pupation rate (%)	71.30	86.10
Yield/10000Larvae (weight.)	8.520	13.120
Cocoon Weight (g)	1.323	1.523
Shell percentage (%)	16.10	17.10
Filament length (m)	665	685
Denier (d)	1.84	2.77

B.Con.4


Larvae and cocoons of B.Con.4

Parameters	Season	
	Unfavourable	Favourable
Fecundity	469	546
Pupation rate (%)	65.50	77.70
Yield/10000 Larvae (kg)	9.930	10.630
Cocoon Weight (g)	1.310	1.760
Shell percentage (%)	18.60	19.30
Filament length (m)	720	830

M.Con.1 x B.Con.4 (Authorized hybrid)


Larvae and cocoons of M.Con.1 x B.Con.4

Parameters	Values
Shell percentage (%)	17.5-18.0
Filament length (m)	700-775
Renditta	8.0-9.0
Yield/100 dfls (kg)	45.0-50.0
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 RSRSs & RECs under this institute. After the multilocational trial this hybrid was reared by farmers of West Bengal and Jharkhand and the performance is given below.