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

The said hybrid was authorized by Central Silk Board in the year 2010 for commercial exploitation during favourable season. Then, this hybrid was reared by the farmers of West Bengal and Jharkhand states during 2012-15 and realized encouraging results and the performance of which is depicted below:

Year	Season	Hybrid					
		M.Con.1 x M.Con.4			N x M12(W)		
		Qty of dfls	No. of farmers	Yield/100 dfls	Qty of dfls	No. of farmers	Yield/100 dfls
2013-14	Jaistha	12000	120	36.39	6350	65	28.05
	Shravani	2900	30	33.65	10850	110	32.60
	Bhaduri	30220	300	20.50	10400	100	23.50
	Aswina	26790	270	30.91	20300	200	31.37
2014-15	Jaistha	5000	50	33.09	18000	180	30.15
	Bhaduri	19600	200	24.02	4800	50	22.09
	Aswina	7000	70	36.57	9000	90	30.77
Total/Average		**103510**	**1040**	**30.70**	**79700**	**795**	**28.36**

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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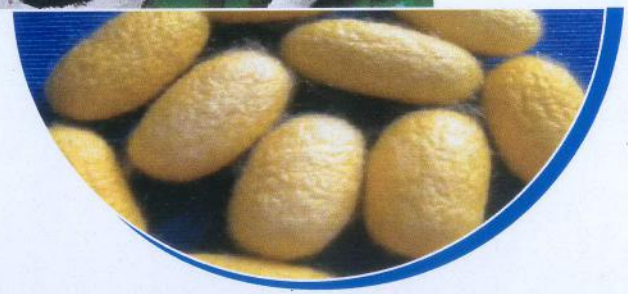
NEW PROMISING MULTIVOLTINE X MULTIVOLTINE HYBRID M.Con.1 x M.Con.4



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In the Eastern and North-Eastern region, fluctuating climate restricts rearing of highly productive good quality silkworm breeds because of less survival and as a result, stakeholders are compelled to rear hardy multivoltine silkworm strain (Nistari) with extremely low productivity and quality, thus leaf conversion efficiency into good quality cocoons becomes very less.

Because of high temperature and high humidity as well as rain, most of the farmers are compelled to rear multivoltine x multivoltine hybrids. The unfavourable season comprises of Shravani, Bhaduri and Aswina (May-Sept) having the prevalence of high temperature (28 - 42°C) and humidity (> 85% R.H.). To suit the un-favourable seasons, CSRTI, Berhampore has developed few polyvoltine breeds by following non-conventional breeding approach *i.e* Congenic breeding to introgress a trait controlled by multiple genes *viz.*, M.Con.1 and M.Con.4.

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

M.Con.1

Larvae and cocoons of M.Con.1

Parameters	Season	
	Unfavourable	Favourable
Fecundity	434	488
Pupation rate (%)	71.3	86.1
Yield/10000Larvae(weight.)	8.520	13.120
Cocoon Weight.(g)	1.323	1.523
Shell percentage (%)	16.1	17.1
Filament length (m)	665	685
Denier (d)	1.84	2.77
Gain in cocoon yield over check	29.3	61.5

M.Con.4

Larval and cocoons of M.Con.4

Parameters	Season	
	Unfavourable	Favourable
Fecundity	429	468
Pupation rate (%)	74.3	87.1
Yield/10000Larvae(weight.)	8.010	12.890
Cocoon Weight.(g)	1.285	1.520
Shell percentage (%)	16.4	16.2
Filament length (m)	655	622
Denier (d)	1.93	2.77
Gain in cocoon yield over check	24.5	58.8

M.Con.1 x M.Con.4

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

Parameters	Values
Shell percentage (%)	15.0-16.0
Filament length (m)	350-450
Renditta	9.10-10.0
Yield/100 dfls (kg)	30.0-34.0
Incremental benefit % over control	70%
Rearing condition	Temp.30-33°C;Humidity 75-85% (June- September)

Based on the better performance in the laboratory, this hybrid was subjected for multilocational trial at all the RSRSs and 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.