

Field Performance of Nistari 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					
		Nistari 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	16700	167	34.13	6350	65	28.05
	Shravani	6250	65	36.28	10850	110	32.60
	Bhaduri	27300	280	26.00	10400	100	23.50
	Aswina	9210	95	33.14	20300	200	31.37
2014-15	Jaistha	4500	45	32.94	18000	180	30.15
	Bhaduri	24000	240	32.21	4800	50	22.09
	Aswina	-	-	-	9000	90	30.77
Total/Average		87960	892	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 Nistari 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 Shrivani, 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 Nistari, M.Con.4 and Nistari x M.Con.4 are given below :

Nistari



Larvae and cocoons of Nistari

- Indigenous race quite popular with the farmers of West Bengal
- Low productive race
- Characterized by golden yellow spindle shaped cocoons
- Suitable for subsistence farming condition, fluctuating temperature and poor hygienic conditions and reared during unfavourable seasons
- More floss percentage (18-22%)
- Very poor post cocoon quality parameters
- High renditta (11-12)

M.Con.4



Larval and cocoons of M.Con.4

Parameters	Season	
	Unfavourable	Favourable
Fecundity	429	468
Pupation rate (%)	74.3	87.1
Yield/10000 Larvae (weight.)	8.010	12.890
Cocoon Weight.(g)	1.285	1.520
Shell percentage (%)	16.4	16.2
Filament length (m)	655	702
Denier (d)	1.93	2.77
Gain in cocoon yield over check	24.5	58.8

Nistari x M.Con.4



Larvae and cocoons of Nistari x M.Con.4

Parameters	Values
Shell percentage (%)	14.0-16.0
Filament length (m)	350-400
Renditta	9.5-10.5
Yield/100 dfls (kg)	30.0-35.0
Incremental benefit % over control	75 %
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 RSRs 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.