

## M6DPC x (SK6.7)

### New Multi x Bivoltine Hybrid With High Silk Productivity



CSRTI

Central Sericultral Research & Training Institute  
Central Silk Board, Ministry of Textiles  
Govt. of India, Berhampore, West Bengal

#### Reeling Performance

Parameter	M6DPC x (SK6.7)	Nistari x (SK6.7)
Filament Length (m)	749	566
NBFL (m)	612	402
Denier	2.65	2.60
Renditta	9.65	10.61
Recovery (%)	80	78
Evenness (%)	75	74
Cleanliness (%)	80	78

#### Grainage Performance

Parameter	M6DPC x (SK6.7)	Nistari x (SK6.7)
Cocoons/ Kg (Nos)	870	934
Egg Yield/ kg cocoon	75.17	72.02

M6DPC basic seed multiplication is being taken-up by NSSO-WB, DoT-WB & DoS-Tripura

#### Salient Features - M6DPC x (SK6.7)

- Productive hybrid
- Rearing in all seasons
- Plain larvae
- Cocoon shell:18-19%
- Finer silk filament
- Filament length: 700-750m
- Renditta: 8-9
- Reelability: 86.3%
- Raw silk: 12.90%
- Neatness: 84
- Cocoon yield: 55.62 kg/100 dfls



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**M6DPC x (SK6.7)**  
**New Multi x Bivoltine Hybrid**  
**With High Silk Productivity**

Mulberry silk producing state of West Bengal experiences variable climatic conditions in different seasons. Multi x Bi hybrids (F1) are reared by the farmers all through the year for their livelihood. The adverse seasons of Jaistha, Bhaduri & Ashwina are characterized by high temperature and high humidity. Even though, several productive and superior silkworm breeds/hybrids are developed and introduced in the field, the genetic potential has not been realized fully as these breeds/hybrids did not perform up to the expectations in fluctuating climatic conditions of Eastern & North Eastern States. As a result, indigenous breed 'Nistari' is being predominantly used by the farmers. Nistari is bestowed with high survival and adaptation in the region, however with low productivity (15-20 kg/100 dfls) and inferior reeling characteristics. Currently, Nistari x (SK6.7) is the commercially available F1 and popular hybrid in West Bengal.

CSRTI-Berhampore developed a new highly productive multi x bi hybrid, M6DPC x (SK6.7) with better silk quality and reeling performance. M6DPC, new multivoltine breed characterized by plain larvae, spindle shape and golden yellow coloured cocoons. M6DPC is characterized by high productivity (28-32kg/100 dfls), high survival (>95%), improved cocoon weight (~1.4g) & shell content (14-15%), with less floss and suitable for unfavorable seasons.

**Field Performance**

Year	M6DPC X (SK6.7)		Nistari X (SK6.7)	
	Qty (Dfls)	Yield/ 100 dfls (kg)	Qty (Dfls)	Yield/ 100 dfls (kg)
2014-15	99000	52.76	30000	46.89
2015-16	46700	49.81	57450	43.53
2016-17	15300	50.42	3600	45.22
2017-18	30000	48.84	2600	44.35
Total/ Avg	191000	50.45	93650	44.99
<b>12.14% Improvement over Nistari F1</b>				

M6DPC x (SK6.7) hybrid is authorized by Central Silk Board in 2019 for commercial exploitation in West Bengal, Jharkhand & North Eastern states.

Currently, the seed production of M6DPC x (SK6.7) is being undertaken by National Silkworm Seed Organization's Seed Production Centres (NSSO-SSPCs) & DoT-West Bengal Govt. Graingaes in West Bengal on demand-basis. The hybrid seed production is also undertaken in Tripura also. The new hybrid is being reared all through the year.

**Overall Performance**

Parameter	M6DPC X (SK6.7)	Nistari X (SK6.7)
Fecundity (No)	500-550	400-450
Pupation (%)	92-95	95-96
Yield/ 100 dfls (kg)	54-56	48-50
Shell (%)	18.61	17.86
Shell Wt (g)	0.316	0.285
Cocoon Wt. (g)	1.698	1.595
Defective Cocoons (Nos)	7	11
Raw Silk (%)	12.90	10.9
Reelability (%)	86.3	82.2
Rendita	8-9	9-10

**Higher Returns to Farmers due to Improved Economic Traits over Nistari F1**