

Table 1: Average air temperature and rainfall at Cotton Research Station, Dera Ismail Khan during 2011-2013 growing seasons

2011					2012				2013			
Month	Temperature (°C)			Rainfall (mm)	Temperature (°C)			Rainfall (mm)	Temperature (°C)			Rainfall (mm)
	Max	Min	Average		Max	Min	Average		Max	Min	Average	
April	34	16	25	12	32	18	25	41	33	17	25	2
May	43	27	35	7	38	24	31	3	39	23	31	80
June	42	26	34	35	40	26	33	3	41	25	33	22
July	38	26	32	50	37	27	32	49	40	28	34	-
August	37	27	32	17	35	26	31	36	37	27	32	-
September	36	24	30	4	33	23	27	75	37	25	31	6
October	30	18	24	-	32	16	24	-	33	21	27	6
November	28	12	20	-	27	11	19	-	26	10	18	1

Table 2: Mean square values of bolls plant⁻¹, boll weight (g), seed cotton yield (kg ha⁻¹), ginning out turn (%), fiber length (mm), fiber strength (g tex⁻¹), micronaire and uniformity (%) for different genotypes during 2011-2013

2011									
Source	D.F	B o l l plant ⁻¹	B o l l weight	S e e d c o t t o n yield	GOT	F i b e r length	F i b e r strength	Micronaire	Uniformity
Replication	2	0.6	0.1	15622	0.1	0.1	0.2	0.0	0.2
Varieties	5	125.0**	0.5**	162128**	4.1**	0.6ns	4.7**	0.1**	0.9*
Error	10	0.3	0.1	14866	0.5	0.3	0.3	0.0	0.2
2012									
Replication	2	2.0	0.0	3016	0.0	0.2	0.3	0.0	0.1
Varieties	5	104.8**	0.3**	256391**	3.3**	0.4*	4.5**	0.1*	0.9**
Error	10	0.5	0.0	11923	0.4	0.1	0.2	0.0	0.1
2013									
Replication	2	1.8	0.0	43491	0.0	0.1	0.1	0.0	0.0
Varieties	5	102.2**	0.2*	320056**	3.3**	0.4ns	4.6**	0.1**	2.7**
Error	10	1.1	0.0	9055	0.4	0.2	0.5	0.0	0.2
Mean 3yr									
Replication	2	1.1	0.0	14300	0.0	0.1	0.2	0.0	0.0
Varieties	5	110.0**	0.3**	218723**	3.6**	0.4ns	4.5**	0.1**	1.3**
Error	10	0.3	0.0	4266	0.4	0.1	0.3	0.0	0.0

ns, non significant; Rep (y*), replication over year. *Significant at the 0.05 probability level.

**Significant at the 0.01 probability level.

Table 3: Bolls plant⁻¹ of varieties during 2011-2013 growing seasons

Varieties	Years			Mean
	2011	2012	2013	
DNH-105	37.90 a	36.73 a	37.03 a	37.20 a
CIM-573(std)	36.53 b	34.40 b	35.37 a	35.43 b
CRIS-342	29.93 c	29.43 c	29.10 b	29.47 c
Gomal-93	29.83 c	29.70 c	29.70 b	29.73 c
NIAB-112	23.70 d	23.70 d	23.70 c	23.70 d
CIM-612	22.03 e	21.43 e	22.77 c	22.07 e
LSD _{0.05}	1.031	1.333	1.931	0.9115

Note: Means followed by same letter do not differ significantly at 5% level of probability.

Table 4: Boll weight (g) of varieties during 2011-2013 growing seasons

Varieties	Years			Mean
	2011	2012	2013	
DNH-105	3.53 a	3.20 a	3.40 a	3.37 a
CIM-573(std)	3.40 ab	3.10 a	3.27 ab	3.27 a
CRIS-342	2.70 cd	2.60 b	2.80 c	2.70 bc
Gomal-93	3.00 bc	2.83 ab	2.97 bc	2.93 b
NIAB-112	2.63 cd	2.53 b	2.77 c	2.63 bc
CIM-612	2.50 d	2.46 b	2.70 c	2.57 c
LSD _{0.05}	0.4267	0.3859	0.3902	0.3203

Note: Means followed by same letter do not differ significantly at 5% level of probability.

Table 5: Seed cotton yield (kg ha⁻¹) of varieties during 2011-2013 growing seasons

Varieties	Years			Mean
	2011	2012	2013	
DNH-105	2315 a	2626 a	2874 a	2605 a
CIM-573(std)	2245 a	2356 b	2660 b	2420 b
CRIS-342	2130 a	1948 cd	2074 d	2051 c
Gomal-93	2204 a	2397 b	2571 b	2391 b
NIAB-112	1830 b	2081 c	2341 c	2084 c
CIM-612	1752 b	1875 d	2071 d	1899 d
LSD _{0.05}	221.8	198.7	173.1	118.8

Note: Means followed by same letter do not differ significantly at 5% level of probability.

Table 6: GOT (%) of varieties during three growing seasons (2011-2013)

Varieties	Years			Mean
	2011	2012	2013	
DNH-105	39.93 a	39.83 a	40.00 a	39.93 a
CIM-573 (std)	39.43 a	39.53 a	39.80 a	39.60 a
CRIS-342	37.73 b	38.10 bc	38.10 b	37.97 b
Gomal-93	39.10 a	39.30 ab	39.40 a	39.27 a
NIAB-112	37.80 b	38.13 bc	38.13 b	38.03 b
CIM-612	36.93 b	37.10 c	37.50 b	37.17 b
LSD _{0.05}	1.250	1.203	1.108	1.082

Note: Means followed by same letter do not differ significantly at 5% level of probability.

Table 7: Fiber length (mm) of varieties during three growing seasons (2011-2013)

Varieties	Years			Mean
	2011	2012	2013	
DNH-105	29.33	29.00 a	29.20	29.17
CIM-573 (std)	29.27	29.10 a	29.03	29.13
CRIS-342	28.43	28.23 b	28.43	28.37
Gomal-93	29.13	28.77 ab	29.13	29.00
NIAB-112	29.20	28.97 a	28.80	29.00
CIM-612	28.33	28.33 b	28.33	28.33
LSD _{0.05}	NS	0.5335	NS	NS

Note: Means followed by same letter do not differ significantly at 5% level of probability.

Table 8: Fiber strength (g tex⁻¹) of varieties during three growing seasons (2011-2013)

Varieties	Years			Mean
	2011	2012	2013	
DNH-105	28.63 a	28.30 a	28.50 a	28.47 a
CIM-573 (std)	27.60 ab	27.80 ab	27.83 ab	27.73 ab
CRIS-342	26.30 c	25.93 d	26.30 c	26.17 d
Gomal-93	27.43 b	27.07 bc	27.23 abc	27.23 bc
NIAB-112	26.80 bc	26.50 cd	26.80 bc	26.70 cd
CIM-612	24.97 d	24.97 e	24.97 d	24.97 e
LSD _{0.05}	1.070	0.8552	1.273	0.9609

Note: Means followed by same letter do not differ significantly at 5% level of probability.

Table 9: Micronaire of varieties during 2011-2013 growing seasons

Varieties	Years			Mean
	2011	2012	2013	
DNH-105	4.27 c	4.40 b	4.17 c	4.26 d
CIM-573 (std)	4.40 c	4.53 b	4.40 b	4.43 cd
CRIS-342	4.50 bc	4.60 b	4.53 b	4.53 bc
Gomal-93	4.37 c	4.47 b	4.47 b	4.43 cd
NIAB-112	4.70 ab	4.60 b	4.60 ab	4.63 ab
CIM-612	4.83 a	4.83 a	4.77 a	4.80 a
LSD _{0.05}	0.2372	0.2074	0.2228	0.1908

Note: Means followed by same letter do not differ significantly at 5% level of probability.

Table 10: Uniformity ratio (%) of varieties during 2011-2013 growing seasons

Varieties	Years			Mean
	2011	2012	2013	
DNH-105	80.00a	79.83a	80.73a	80.17a
CIM-573 (std)	79.00ab	79.07b	79.40ab	79.17b
CRIS-342	77.91bc	77.79c	77.13d	77.63cd
Gomal-93	79.24ab	78.08c	78.67bc	78.67b
NIAB-112	78.84abc	77.79c	77.79cd	78.13c
CIM-612	77.46c	77.46c	76.47d	77.13d
LSD _{0.05}	1.505785	0.688202	1.379556	0.513871

Note: Means followed by same letter do not differ significantly at 5% level of probability.