MONTHLY REPORT OF
CYTOGENETICS SECTION, CENTRAL COTTON RESEARCH INSTITUTE, MULTAN
FOR THE MONTH OF SEPTEMBER, 2026

The following experiments of the research program were attempted during the month under report.

Sr. No.	Section	Name of HoD/Staff	Expt. No.	Experiment Title	Progress
3	**Cytogenetics**	**Dr. Farzana Ashraf** **SO/Head** **Technical Staff = 3** **Supporting Staff =4**	3.1	**Maintenance of *Gossypium* germplasm Maintenance of *Gossypium* germplasm**	Glass House of the Cytogenetics Section is currently **non-functional.** The water pad, heating system, and other essential facilities are not operational. Consequently, important activities such as seed germination, cutting, grafting, and maintenance of wild germplasm under controlled conditions have been halted. At present, only a limited number of wild species are being maintained under field conditions. However, most of the wild germplasm requires Glass House facilities for proper maintenance and multiplication. In the absence of a functional Glass House and adequate funding for its operation and maintenance, it is becoming difficult to preserve and utilize this valuable germplasm for research and breeding purposes. Proper funding is therefore essential for the repair, and operationalization of the Glass House, as well as for the continued maintenance, multiplication, and utilization of wild germplasm in research programmes. This is submitted for your kind information
			3.2	**Interspecific/Intra Hybridization**	Crossing was done
			3.3	**Search for Bt/Non Bt homozygous resistance against CLCuD under field conditions**	
			3.4	**Cyto-experiments**	
			3.4.1	Varietal Trial-1	Boll formation was recorded Table-01.
			3.4.2	Varietal Trial-2	Boll formation was recorded Table-01.

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			3.4.3	Varietal Trial-3	Boll formation was recorded Table-01.
			3.4.4	Varietal Trial-4	Boll formation was recorded Table-01.
			3.4.5	Micro-Varietal Trial-1	Boll formation was recorded Table-01.
			3.4.6	Micro-Varietal Trial-2	Boll formation was recorded Table-01.
			3.4.7	Micro-Varietal Trial-3	Boll formation was recorded Table-01. Agronomic and pest control measures are in progress
			3.4.6	Micro-Varietal Trial-4	Boll formation was recorded Table-01. Agronomic and pest control measures are in progress
			3.4.7	Micro varietal Trial-5	Boll formation was recorded Table-01. Agronomic and pest control measures are in progress
			3.4.8	Micro Varietal Trial 6	Boll formation was recorded Table-01. Agronomic and pest control measures are in progress
			3.4.9	Micro Varietal Trial 7	Boll formation was recorded Table-01. Agronomic and pest control measures are in progress
			3.5	Early generation system	Agronomic and pest control measures are in progress.

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Cytogenetics Section
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Table-1: No. of Bolls per plant recorded

in different varietal trials of Cytogenetics Section, Central Cotton Research Institute, Multan

Sr. No.	Experiments	Sowing date	Varieties									
1	Varietal Trial-1	10-03-026	**V-1**	**V -2**	**V -3**	**V -4**	**V -5**	**CYTO-535**				
			38	32	30	37	43	30				
2	Varietal Trial-2	10-03-2026	**V-6**	**V-7**	**V-8**	**V-9**	**V-10**	**V-11**	**Cyto-535**			
			29	30	30	45	30	34	30			
3	Varietal Trial-3	10-03-2026	**V-12**	**V-13**	**V-14**	**V-15**	**V-16**	**V-17**	**CYTO-535**			
			30	41	31	29	38	25	29			
4	Varietal Trial-4	10-03-2026	**V-18**	**V-19**	**V-20**	**V-21**	**V-22**	**V-23**	**CYTO-535**			
			34	32	32	37	27	35	35			
5	Micro Varietal Trial-1	22-.4-2026	**MV-1**	**MV-2**	**MV-3**	**MV-4**	**MV-5**	**MV-6**	**CYTO-545**			
			9	11	13	8	13	8	10			
6	Micro Varietal Trial-2	22-04-2026	**V-7**	**V-8**	**V-9**	**V-10**	**V-11**	**V-12**	**CYTO-545**			
			12	11	15	10	10	9	9			
7	Micro Varietal Trial-3	22-04-2026	**V-13**	**V-14**	**V-15**	**V-16**	**V-17**	**V-18**	**CYTO-545**			
			12	12	12	9	12	15	9			
8	Micro Varietal Trial-4	30-4-2026	MV-19	MV-20	MV-21	MV-22	MV-23	Cyto-535				
			13	8	10	14	11	10				
9	Micro Varietal Trial-5	30-4-2026	MV-24	MV-25	MV-26	MV-27	MV-28	Cyto-535				
			13	17	15	5	16	10				
10	Micro Varietal Trial-6	07-05-2026	MV-29	MV-30	MV-31	MV-32	MV-33	MV-34	Cyto-535			
			14	17	16	16	14	18	11			

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11	Micro Varietal Trial-7		MV-35	MV-36	MV-37	MV-38	MV-39	MV-40	Cyto-535			
			12	22	18	18	17	24	11			

VT-1
Maximum no of bolls were observed in V-5 (43) followed by V1 (38.0) as compared to check Cyto-535 (30.0).
VT-2
Maximum no of bolls were observed in V-9 (45) followed by V11 (34.0) as compared to check Cyto-535 (30.0).
VT-3
Maximum no of bolls were observed in V-13 (41) followed by V16 (38.0) as compared to check Cyto-535 (29.0).
VT-4
Maximum no of bolls were observed in V-23 (35) followed by V18(38.0) as compared to check Cyto-535 (35.0).
MVT-1
Maximum no of bolls were observed iMV-3 (13) followed by MV2 (11) as compared to check Cyto-545 (10.0).
MVT-2
Maximum no of bolls were observed in MV-9 (15) followed by MV-7 (12) as compared to check Cyto-545 (9.0).
MVT-3
Maximum no of bolls were observed in MV-18 (15) followed by V13,14,15 (12.0) as compared to check Cyto-545 (9.0).
MVT-4
Maximum no of bolls were observed in MV-22 (14) followed by MV-19 (13.0) as compared to check Cyto-535 (10.0).
MVT-5
Maximum no of bolls were observed in MV-25 (17) followed by MV-28 (16.0) as compared to check Cyto-535 (10.0).
MVT-6
Maximum no of bolls were observed in MV-34 (18) followed by MV-30 (17.0) as compared to check Cyto-535 (11.0).
MVT-7
Maximum no of bolls were observed in MV--40 (24) followed by MV-36 (22.0) as compared to check Cyto-535 (11.0).

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Details of EGS-2026

Field No	Variety	Area	Date of sowing	Remarks	General observation
4/6	Advance Cyto-line	0.5	12-03-2026	Germination was good, and the crop remained healthy up to the first picking. The line has big bolls and good lodging resistance. It is a single-gene line.	All fields were badly damaged by **dusky bug** and now under sever infestation of **pink boll worm.** Spray was scheduled when crop was fully infected. Traps were installed for whitefly and pink bollworm; however, the trap capsules were not replaced at the prescribed intervals. Gum application was also not repeated as required. Based on the current condition of the seed, poor seed germination is expected in the next season. Poor entomological measurements have been observed consistently over the past several years, with no significant improvement in protecting the crop from insect pests or maintaining seed quality. **Note:** Approximately 18 acres of Cytogenetics crop have been severely damaged by dusky bug and pink bollworm infestation. The resulting economic loss may be assessed and quantified by any Committee.
4/18	Cyto-535	1	20-05-2026	Sowing was delayed due to the late harvesting of wheat and subsequent land preparation. However, all necessary preparations for sowing had been completed by February.	
4/19,20	Cyto-547	1	18-05-2026	The crop was sown late and was severely damaged by jassid infestation. The entomological observations for jassid resistance were extremely poor, and the crop showed significant stunting.	
4/21	Cyto-537	1	18-05-2026	Germination was very low in the BNS block. The previous year's crop was severely damaged by dusky bug infestation and inadequate pest management. Seed vigor was also very low.	
4/22	Cyto-535	1	11-03-2026	The crop had a good stand but was severely damaged by dusky bug. Approximately 50% of the seed was damaged by dusky bug, while most of the remaining seed was damaged by pink bollworm. The crop produced a large number of open and unopened bolls, but the bolls were severely damaged by pink bollworm.	

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