

I. INTRODUCTION

The Pakistan Central Cotton Committee has established the Central Cotton Research Institute, Sakrand at District Shaheed Benazirabad (Nawabshah) in 1976 for Cotton Research with a vision “Improving production and quality of country’s Cotton (including the development of transgenic resistant to biotic and abiotic stresses) with reduced cost to make cotton production effective and competitive in the national and global market”. Its main mission is to develop economically viable and eco-friendly production and protection technologies for enhancing quality cotton production on sustainable basis for the next coming years. Central Cotton Research Institute, Sakrand is in the center of cotton growing areas of the River Indus Valley which is the second largest cotton producing region of Pakistan. It has a typical area with favourable climatic and ecological conditions for cotton cultivation.

The Institute has 50 acres of farm land including collection of *Gossypium* wild species. Concerted efforts were made within the allocated funds to develop the entire area into a good research farm in terms of creation of blocks and levelling for providing uniform irrigation. Efforts are underway to initiate further developmental work in the farm.

With untiring endeavors of research experts, the institute is functioning with Agronomy, Plant Breeding and Genetics, Entomology, Plant Pathology and Plant Physiology/Chemistry sections. Since its induction, the institute has successfully evolved a considerable number of high yielding cotton varieties with desirable fibre qualities. The details are summarized as under:

Variety	Year of release	Yield Potential (Kg ha ⁻¹)	GOT (%)	Fiber Length (mm)	Fiber Strength (tppi)
CRIS-9	1992	4000	34.5	26.5	97.0
Marvi (CRIS-5A)	2001	3900	35.0	26.8	97.5
CRIS-134	2004	4500	36.5	27.5	97.0
CRIS-467	2004	3800	37.0	27.5	97.2
CRIS-121	2006	4000	36.8	27.5	98.5
CRIS-342	2010	4000	38.5	28.5	98.5
CRIS-129	2014	5200	37.5	28.5	98.5

Plant breeding and Genetics Section focusing on various tasks to meet the challenges of the changing climate by introducing high yielding early maturing drought tolerant heat resistant, insect resistance and disease especially CLCuV tolerant/ resistance

cotton cultivars with high GOT% and better fiber quality characteristics to meet the growing textile industry.

This Institute has already succeeded in developing number of varieties those are popular in the area of Sindh and Balochistan.

The two advance promising strains CRIS-533 and CRIS-585 were tested at different ecological zones of the Sindh Province. Simultaneously one strain CRIS-533 has completed the two years in NCVT Trials and has secured 1st position in Sindh Province in both the years. However CRIS-585 has completed 1st year in NCVT trials in and has secured 3rd position in Sindh and 5th position on Pakistan level.

Variety	Yield Potential (Kg ha ⁻¹)	GOT (%)	Fiber Length (mm)	Fiber Strength (G tex ⁻¹)	Uniformity Index (%)
CRIS-533	4650	41.6	28.9	26.9	85.4
CRIS-585	4850	42.4	29.1	29.3	85.6

In Zonal Varietal Trials two advanced Strains viz; CRIS-543 and CRIS-577 shown its best yield potential and desirable fiber characteristics. The characters of these varieties are as under:

Variety	Yield Potential (Kg ha ⁻¹)	GOT (%)	Fiber Length (mm)	Fiber Strength (G tex ⁻¹)	Uniformity Index (%)
CRIS-543	4531	43.7	29.2	31.3	80.0
CRIS-577	4482	43.5	28.9	31.0	84.7

The proposals of two varieties are being prepared and already submitted in technical subcommittee for approval. The characters of these varieties are as under:

Variety	Yield Potential (Kg ha ⁻¹)	GOT (%)	Fiber Length (mm)	Fiber Strength (tpsi)	Uniformity Index (%)
CRIS-510	4600	38.2	28.5	98.7	86.4
Bt.CRIS-508	4800	41.2	28.7	102.6	85.8

The plant breeding and genetics section not ended to develop more promising strains/varieties.

At present nine new Bt. strains are also in advance trials. These are better in yield and possess better fiber quality characteristics. In addition new breeding material is in different segregating generations, which are early in maturity high, yield potential having resistance/tolerance against insect pests and disease specially CLCuV with desirable fiber

traits. Fiber strength is very important factor/ character for textile industries as it reduce the trash; thus enhance the quality of fiber.

Applied/Basic research is the main tasks of the activity. Institute's priority is set on research to solve the major scientific and technical problems in cotton production, organizing/initializing the research projects in Sindh Province, promoting the international cooperation/technical exchange as well as technological development of cotton. Institute is highly functional in providing technical support and guidance to the growers of Sindh and Balochistan provinces through regular surveys of their crop during the cotton season and identifies the problems of cotton growers and provides technical guidance on spots for remedial measures. The institute has organized result oriented/based trainings to Field Staff of Agriculture Extension Department, Government of Sindh and Balochistan and representatives of NGO's for enhancing skills on improved cotton production technology. Literature regarding cotton production practices in local language was also published and distributed among cotton growers of Sindh and Balochistan.

II. BUDGET

The budget of last Five years is summarized in Table-1, as below:

Table 1: Budget Position of CCRI-Sakrand from 2010-11 to 2014-15.

Year	Budget sanctioned	Budget released	Pay and Allowances	T.A. and D.A.	Contingencies
2010-2011	3,48,23,012	3,42,35,493	2,70,13,916 (78.90%)	6,92,724 (2.02%)	65,28,853 (19.07%)
2011-2012	-	3,55,70,845	2,94,16,059 (82.70%)	4,34,628 (1.22%)	48,51,753 (13.64%)
2012-2013	-	3,45,63,283	2,84,20,930 (82.22%)	1,49,257 (0.43%)	49,70,383 (14.38%)
2013-2014	3,83,63,300	4,10,17,648	3,22,10,942 (78.52%)	4,45,353 (1.08%)	59,26,212 (14.44%)
2014-2015	4,55,44,056	3,41,58,042	2,11,99,701 (62.06%)	2,50,809 (0.7%)	31,25,491 (9.15%)

III. INCOME

The income of the Institute during 2010-2011 to 2014-2015 is given below:

Sr. No.	Head	2010-11	2011-12	2012-13	2013-14	2014-15
1.	Farm Produce	44,42,892	23,94,040	19,59,304	39,02,282	34,32,654
2.	Non-Farm Produce	5,14,132	4,87,436	5,67,168	5,60,249	4,68,481

IV. PRESENT TECHNICAL STAFF

Name	Designation	Qualification	Joined the Present Post
Directorate Section			
Mr. Mushtaque Ali Laghari	Director	M.Sc Agri. (Hons.) Sindh, 3 Months Training (UK)	01-12-2014
Mr. Ghulam Murtaza Soomro*	FO	B.E. Agri. Sindh	29-09-2009
Agronomy Section			
Mr. Allah Dino Kalhoro	SSO	M.Sc Agri. (Hons.) Sindh	20-05-2014
Dr. M Rafi Qamar Hashmi	SO	M.Sc Agri. (Hons.), PhD.	19-05-2014
Mr. Karim Bakhsh	SO	M.Sc Agri. (Hons.)	20-05-2014
Plant Breeding & Genetics Section			
Mr. Hidayatullah Bhutto	SSO	M.Sc Botany Sindh	20-05-2014
Miss. Rehana Anjum	SSO	M.Sc Agri. (Hons.) Sindh	20-05-2014
Miss. Saira Bano Babar	SSO	M.Sc Agri. (Hons.) Sindh	20-05-2014
Mr. Muhammad Saffar Majidano	SO	M.Sc Agri. (Hons.) Sindh	25-03-2010
Mr. Abdul Wahab Somroo	SO	M.Sc Agri. (Hons.) Sindh	16-05-2014
Mr. Faiz Hussain Panwar	SO	M.Sc Agri. (Hons.) Sindh	19-05-2014
Mr. Abdul Razaq Channa	SO	M.Sc Agri. (Hons.) Sindh	21-05-2014
Mr. Zahir Ahsan	SO	M.Sc Agri. (Hons.)	21-05-2014
Entomology Section			
Dr. Muhammad Waris Sanjrani	PSO	M.Sc Agri. (Hons.) Sindh Ph.D (Turkey) 4 Months Training (UK)	20-05-2014
Mr. Aziz Ahmed Memon	SSO/FO	M. Sc Agri, (Hons) Sindh 2 Months Training (USA) 4 weeks Training (Turkey)	20-05-2014
Dr. Shah Nawaz Khuhro	SO	M.Sc Agri. (Hons.) Sindh, Ph.D	25-03-2010
Mr. Farhan Ahmad	SO	M.Sc Agri. (Hons.)	27-05-2014
Plant Pathology Section			
Mr. Muhammad Rahim Magsi	SSO	M.Sc Agri. (Hons.) Sindh	20-05-2014
Mr. Atta-ur-Rehman **	SO	M.Sc Agri. (Hons.) Sindh	25-03-2010
Mr. Fakhr-e-Imam Khaskheli	SO	M.Sc Agri. (Hons.) Sindh	19-05-2014
Miss. Nargis Shah	SO	M.Sc Agri. (Hons.) Sindh	19-05-2014
Plant Physiology Section			
Mr. Abdullah Keerio	SO	M.Sc Agri. (Hons.) Sindh	16-05-2014
Miss. Bushra Urooj Panhwar	SO	M.Sc Agri. (Hons.) Sindh	19-05-2014
Mr. Vishan Dass Suthar	SO	M.Sc Agri. (Hons.) Sindh	29-05-2014

*Joined CCRI-Sakrand with reference to minutes of meeting of Sub-Committee of Cabinet on reinstatement of sacked employees held on 06-08-2009 and PCCC's Office Order No.S-16(109)97/Estt.3386, dated 24-09-2009.

** Relieved for higher study on 20-08-2013.

PSO: Principal Scientific Officer

SSO: Senior Scientific Officer

SO: Scientific Officer

FO: Farm Officer

V. WEATHER AND CROP

Meteorological data was recorded at Central Cotton Research Institute, Sakrand and is presented in Fig.1 and Table-2, which depicted that maximum temperature 41.6°C and 43.8°C recorded in the month of May and June respectively during 2014 and it was 43.4°C and 40.8°C in corresponding months during last year 2013. Relative humidity percent were higher in the month of May and lower in the month of July during 2014 as compared to last year, 2013. Whereas, minimum temperature was lower in the year 2014, as compared to the last year 2013. There was 138.0 mm rainfall recorded during the month of May to August, 2014 and 57.0 mm rainfall in corresponding period of last year, 2013.

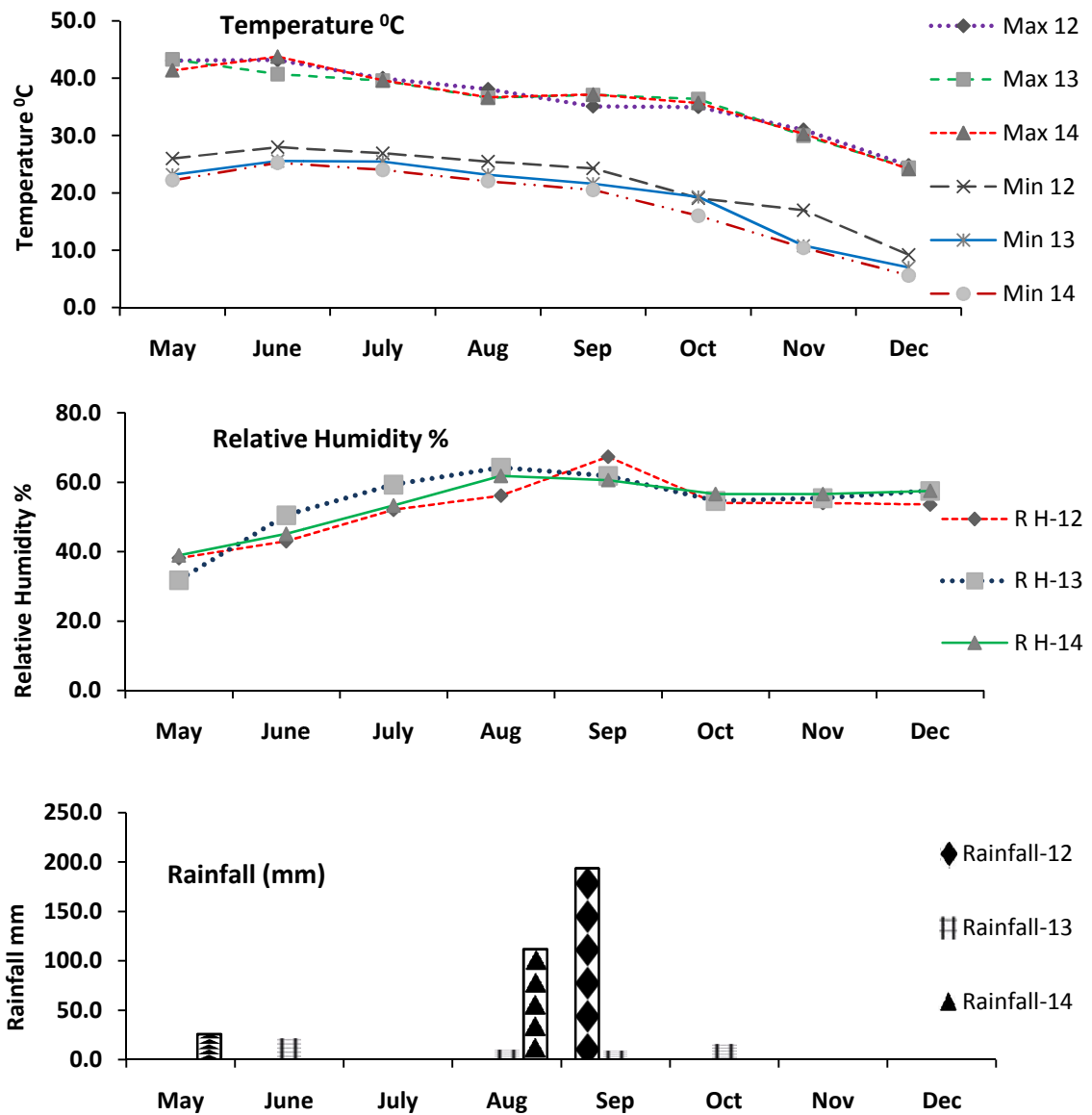


Fig.1: Average Temperature, Relative Humidity% and Rainfall during, 2012, 2013 and 2014.

Table-2: Meteorological data of last three years (2012, 2013 and 2014) seasons recorded at Central Cotton Research Institute, Sakrand

Month	2012					2013					2014				
	Average maximum temp. (°C)	Average minimum temp. (°C)	Mean relative humidity (%)	Rainfall (mm)	Average maximum temp. (°C)	Average minimum temp. (°C)	Mean relative humidity (%)	Rainfall (mm)	Average maximum temp. (°C)	Average minimum temp. (°C)	Mean relative humidity (%)	Rainfall (mm)			
Jan	22.0 (21.8-22.8)	6.0 (5.9-6.5)	59.0 (55.9-60.6)	-	23.6 (16.5-28.0)	5.4 (2.5-11.0)	57.0 (44.7-75.3)	-	22.1 (17.0-27.5)	3.6 (0.0-10.0)	54.9 (44.0-66.3)	-			
Feb	24.0 (22.2-26.6)	7.0 (4.8-7.9)	48.0 (43.8-53.3)	-	25.3 (21.0-30.5)	9.4 (5.5-13.0)	55.5 (47.0-84.7)	38.0	25.4 (21.5-29.5)	7.0 (21.5-29.5)	52.0 (44.3-63.0)	-			
Mar	32.0 (28.3-36.1)	14.0 (10.9-16.5)	44.0 (41.9-45.6)	-	33.1 (26.5-36.5)	13.6 (8.0-17.5)	42.7 (29.7-57.0)	-	30.2 (22.0-34.0)	12.0 (7.5-16.0)	55.3 (42.7-63.7)	12.0			
Apr	37.0 (36.0-38.3)	20.0 (19.6-20.9)	40.2 (37.4-41.6)	-	36.8 (31.5-41.5)	19.5 (15.5-22.5)	38.8 (26.0-58.0)	-	39.9 (34.0-44.5)	19.3 (15.0-23.0)	40.5 (28.7-62.7)	9.0			
May	42.6 (43.0-44.2)	24.0 (21.9-25.3)	38.0 (28.2-42.3)	-	43.4 (38.5-47.5)	23.4 (17.0-26.0)	32.2 (23.0-42.3)	-	41.4 (36.5-48.0)	22.2 (18.0-26.5)	38.9 (28.0-62.0)	26.0			
Jun	43.0 (42.0-44.2)	26.0 (25.4-26.5)	43.0 (41.8-43.5)	-	40.8 (35.5-45.5)	25.7 (23.0-28.0)	50.8 (36.0-92.3)	22.0	43.8 (40.0-47.5)	25.3 (23.0-26.5)	45.1 (32.7-60.0)	-			
Jul	40.0 (39.8-40.3)	26.0 (25.1-26.3)	52.0 (48.1-54.2)	-	39.6 (38.0-42.0)	25.5 (24.0-28.0)	59.5 (47.7-66.7)	-	39.6 (33.5-43.5)	24.0 (23.0-26.0)	53.3 (43.3-78.0)	-			
Aug	38.0 (37.1-38.5)	25.0 (24.4-24.8)	56.0 (52.9-61.9)	-	36.7 (31.5-39.0)	23.2 (22.0-25.5)	64.1 (56.3-92.0)	10.0	36.7 (32.5-39.0)	22.1 (28.0-26.5)	61.8 (53.0-83.7)	112.0			
Sep	35.0 (33.0-36.7)	22.0 (20.7-24.0)	67.0 (56.0-87.0)	194.0	37.3 (34.0-40.0)	21.7 (20.0-24.0)	61.7 (55.0-73.3)	9.0	37.2 (35.0-39.0)	20.5 (19.0-24.0)	60.6 (45.7-66.5)	-			
Oct	34.9 (31.0-36.5)	19.1 (14.5-23.0)	52.8 (45.3-62.7)	-	36.5 (33.5-38.5)	19.5 (15.0-24.5)	55.0 (42.3-70.3)	16.0	35.7 (31.0-38.0)	16.0 (13.0-19.0)	56.6 (36.3-68.0)	-			
Nov	31.0 (28.3-33.6)	12.0 (9.8-13.5)	54.0 (50.8-54.9)	-	29.9 (26.0-33.5)	11.0 (8.0-13.5)	54.5 (45.7-76.7)	-	30.3 (27.0-34.5)	10.4 (6.5-16.0)	56.6 (46.0-70.0)	-			
Dec	24.8 (23.1-26.1)	7.6 (5.7-9.4)	53.5 (50.4-56.7)	-	24.4 (16.5-31.5)	7.0 (1.0-11.0)	57.6 (40.7-76.3)	-	24.2 (17.5-27.0)	5.6 (1.0-10.5)	57.5 (39.7-75.0)	-			

VI. ECONOMIC THRESHOLD LEVELS OF COTTON PESTS

The determination of Economic Threshold Levels, which causes losses to the cotton crop is essential to undertake control measures so that indiscriminate use of pesticides be avoided.

The Economic Threshold Levels of different pests were determined as under:

Thrips	8-10 per leaf
Jassid	1-2 per leaf
Whitefly	3-5 per leaf
Mites	10-15 per leaf
Spotted bollworm	5-10% infestation on fruiting parts
American bollworm	5 larvae/25 brown eggs/25 plants
Pink bollworm	5% bolls damage
Armyworm	As soon as infestation appears
Mealy bug	As soon as insect appears

VII. INSECT PEST SITUATION AT CCRI, SAKRAND

The Entomology section regularly monitored the cotton crop of CCRI, Sakrand. Weekly pest scouting observation was recorded from experiment area of different section. On the basis of pest scouting report, when insect pests reached at economic threshold level then crop sprayed with suitable insecticides. During 2014, sucking insect pest especially thrips and Jassid damaged the crop at early stage with the population of 7.41 and 1.46/leaf during 4th week of July, respectively. The crop was sprayed with Acephate 75 SP @ 250 gms/acre + Diafenthuran 50 EC @ 200 ml/acre against thrips and jassid afterwards their population did not increase and remained below threshold level till picking. Whitefly and bollworms population were recorded below economic threshold level till harvesting. Details of pest population are summarized in (Fig.2-6).

a) Thrips

Thrips is sucking insect pest of cotton and damage the crop from early stage when the crop was on vegetative growth. The attack of thrips started from 4th week of June and remained up to harvesting the crop. The peak population of thrips (7.41/leaf) was observed in 4th week of July and afterwards population remained below economic threshold level. Overall the population of thrips remained same as compared to last year.

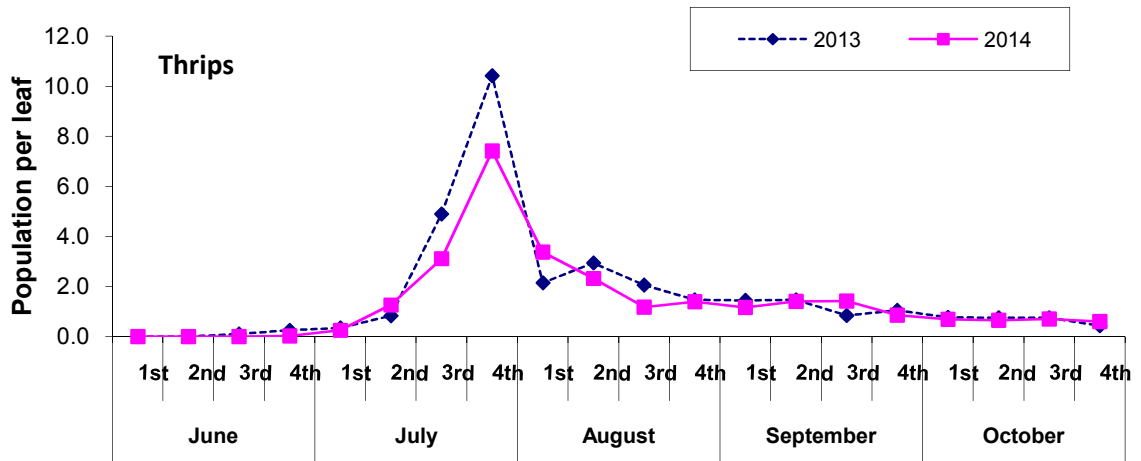


Fig.2: Thrips population per leaf during 2013 and 2014.

b) Jassid

Jassid population remained higher during the months of July with its peak (1.46 per leaf) during 4th week of July. Afterwards the jassid population remained below economic threshold level (Fig.3).

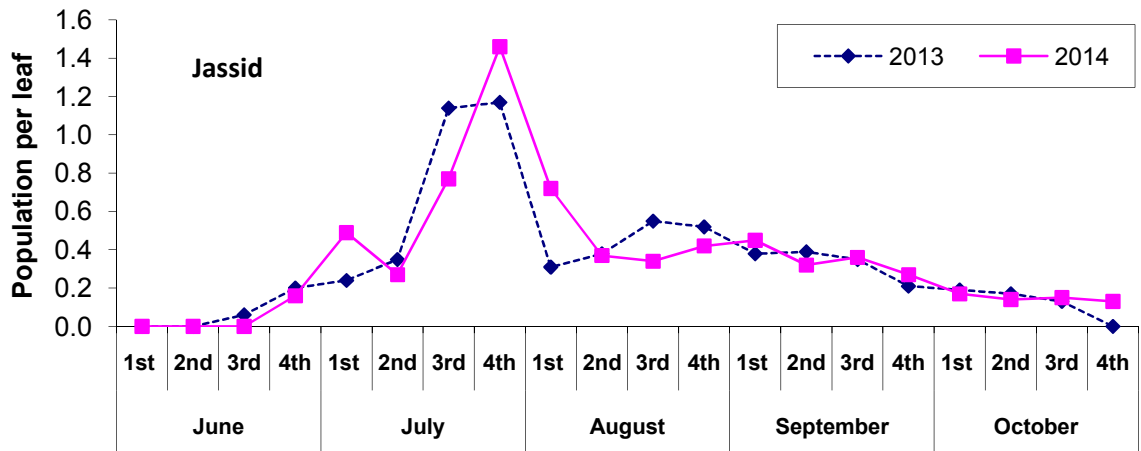


Fig.3: Jassid population per leaf during 2013 and 2014.

c) Whitefly

Whitefly population remained very low throughout the season and almost similar trend was recorded as compared to last year 2013. Its maximum population was (1.82 per leaf) recorded during 4th week of August (Fig.4).

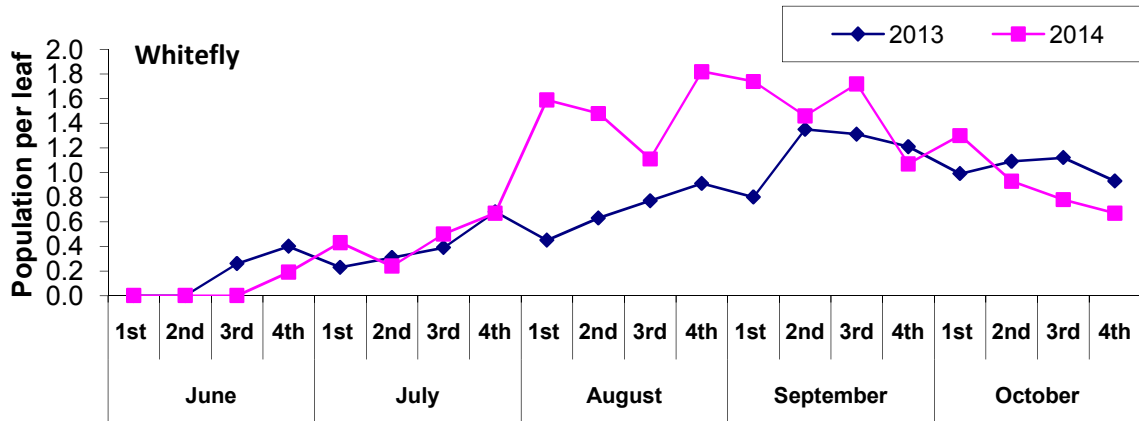


Fig.4: Whitefly population per leaf during 2013 and 2014.

d) Spotted bollworm

Spotted bollworm infestation remained on higher side. Its highest population (4.67%) was noted in 4th week of August. The same trend was observed last year (Fig.5).

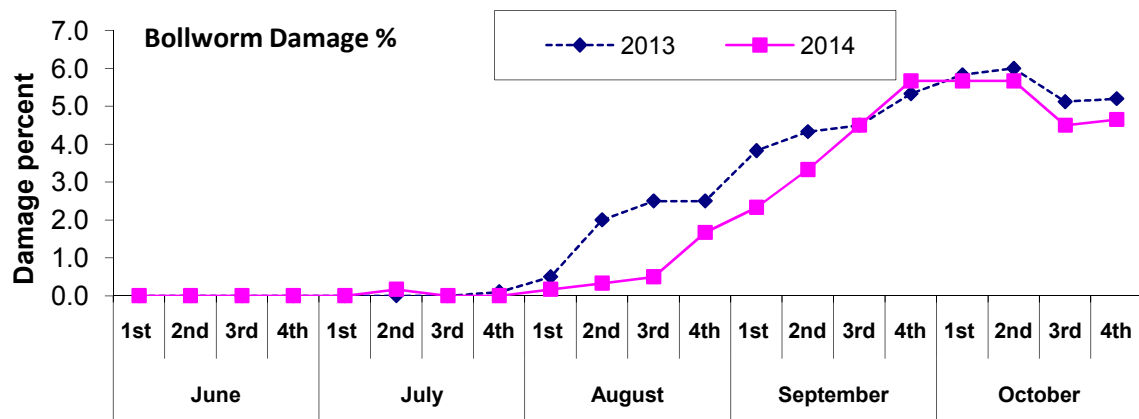


Fig.5: Spotted bollworm damage percent during 2013 and 2014.

e) Live Larvae Percentage

Earias spp., live larvae percentage started to appear in the crop from 4th week of August and reached its peak (1.50%) during 3rd week of September, which were on lower side as compared to last year 2013(Fig.6).

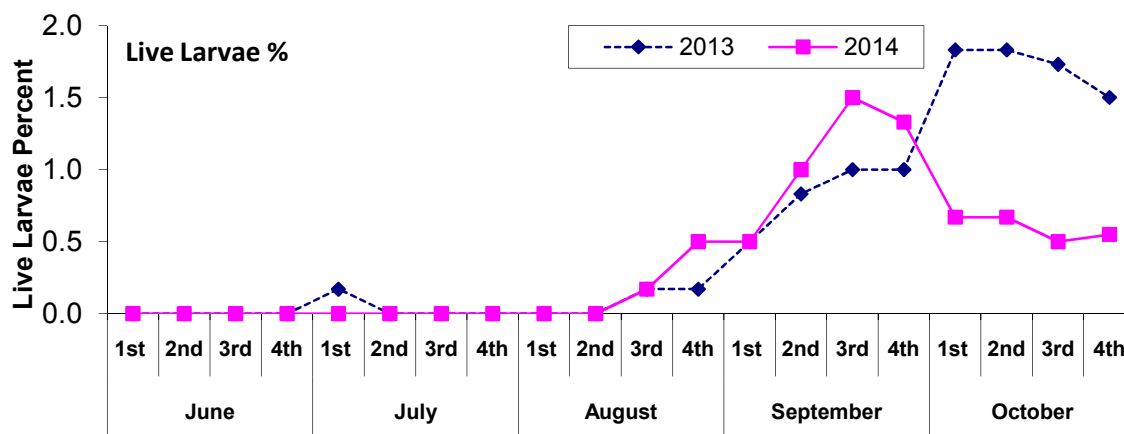


Fig.6: Live larvae damage percent during 2013 and 2014.

VIII. INCIDENCE OF COTTON LEAF CURL VIRUS DISEASE AT CCRI, SAKRAND

The infestation level of Cotton Leaf Curl Virus (CLCuV) disease at CCRI-Sakrand farm was remained higher as compared to last year. However maximum incidence (10.5%) was recorded during September and October.

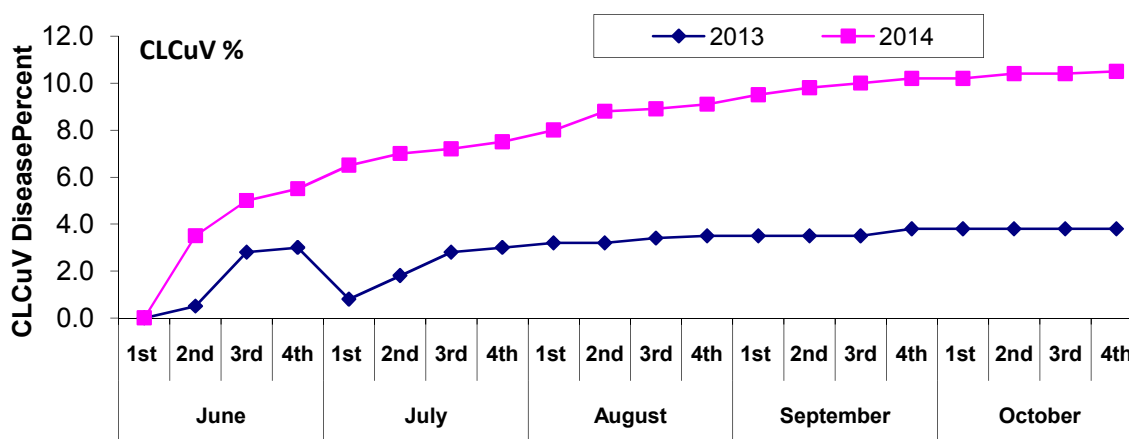


Fig.7: CLCuV percent during 2013 and 2014.

IX. DEMONSTRATION PLOTS AT GROWER'S FIELD

The objectives of the plots were to demonstrate the performance of advanced strains of CCRI, Sakrand at farmers' field in different cotton growing areas of Sindh Province. Three high yielding and better fiber characters new strains were tested against standard variety CRIS-342 at 20 locations of Sindh Province. Data presented in Table 3 shows that, on an overall average of all locations, CRIS-543 produced the maximum seed cotton yield (4339 kg ha⁻¹) followed by CRIS-641 (4105 kg ha⁻¹) and CRIS-577 (4261 kg ha⁻¹) compared with standard variety CRIS-342 (3876 kg ha⁻¹).

Table-3: Yield performance (kg ha⁻¹) of Advanced Strains in Zonal Varietal Trial at Farmer's Field during 2014-15.

Sr. No.	Name of Grower	District	Strain/variety			Standard
			CRIS-543	CRIS-577	CRIS-641	CRIS-342
1.	Dr. Syed Noor Ali Shah	Umer kot	4239	4188	4019	3935
2.	Mr. Abdul Qadir Baloch	Mirpur khas	4431	4389	4275	3826
3.	Mr . Mansoor A. Cheema	Mirpur khas	4347	4287	4019	3922
4.	Dr. M. Umer Memon	Thatta	4169	4081	4113	3872
5.	Haji Ghulam Qadir Chang	Badin	4049	4136	3995	3918
6.	Mr. Abdul Latif Mangrio	Tando Allahyar	4377	4314	4086	3827
7.	Mr. Niaz Muhammad Nizamani	Tando Allahyar	4454	4384	4129	3965
8.	Mr. Manzoor Ali Lakhier	Hyderabad	4266	4153	4023	3824
9.	Syed Nadim Shah	Matitari	4368	4200	4092	3719
10.	Mr. Ghullam Rasool Ahpan	Sanghar	4593	4440	4267	3966
11.	Qadeer Farm Shahdadpur	Sanghar	4422	4316	4152	3883
12.	Syed Ghulam Sarwar Shah	Shaheed Benazirabad	4314	4178	4092	3726
13.	Mr. Ghulam Abass Rahu	Shaheed Benazirabad	4578	4265	4253	3832
14.	Mr. Jamaldin Khoso	Shaheed Benazirabad	4418	4313	4215	3935
15.	Mr. Tufail Ahmed Jalbani	Naushahro Feroze	4366	4319	4088	4015
16.	Mr. Ishtiaque Ahmed Memon	Naushahro Feroze	4259	4233	4155	3811
17.	Raes Ghulam Qasim Jiskani	Khairpur	4335	4336	3978	3882
18.	Khurshed Ahmed Mandan	Khairpur	4238	4276	4049	3913
19.	Malik Mushtaque Awan	Sukkur	4122	4192	4018	3821
20.	Jam Ikram Dharejo	Ghotki	4438	4227	4075	3928
Average			4339	4261	4105	3876

X. COTTON CROP SITUATION IN SINDH

i) COTTON SEED SUPPLY

According to the report of Director Production, processing and marketing Hyderabad, Sindh Seed Corporation, Government of Sindh. During the year 2014-15 a quantity of 790 mds cotton seed of variety IR-3701 was sold to growers of Sindh Province.

ii) IRRIGATION WATER

Due to shortage of irrigation water at the time of sowing, the sowing target could not be achieved and crop was sown on 09% less area than the target.

iii) FERTILIZER

The availability of fertilizer to the cotton growers remained satisfactory. There were no complaints about the shortage of fertilizer to the growers. However, grower complaint about high rates. The rate of fertilizer varied during the season.

iv) AVAILABILITY OF PESTICIDES

Pesticides availability remained satisfactory throughout the year. No any complaint received from the growers regarding the shortage of pesticides. However, there was some news in different newspapers regarding adulterated pesticides. So, the concerned of Agriculture Department took some samples for testing and registered some cases against the dealers.

XI. INSECT PEST SITUATION IN SINDH

Central Cotton Research Institute monitored/surveyed grower's field in different districts of Sindh. During the survey it was observed that mostly sucking insect pest specially thrips, jassid and in some locations mealy bug damaged the cotton crop at early stage. Growers applied appropriate insecticides for control the thrips, Jassid and mealy bug timely. Details of pest position is given in Table 4:

Table-4: Field Survey Report on Cotton Insect Pests/Predators and CLCuV Disease In Different Districts Of Sindh During August and September 2014

Sr. No.	Name of Districts	Sucking pests per leaf			Mealy bug/shoot	Bollworm		Predators Per acre 000/acre	No. of sprays	CLCuV %
		Thrips	Jassids	W. flies		Damage %	Larvae %			
1.	Thatta	0.13	0	0.07	Traces	0	0	6	4	1.3
2.	Hyderabad	0.28	0.16	0.57	34.03	0.11	0.04	13	3.83	2.71
3.	Matiari	0.26	0.1	0.53	25.95	1.33	0.35	11	4	4.5
4.	Tando M Khan	1.82	0.12	1.45	2.80	0	0	9	4	0
5.	Tando Allahyar	0.81	0.17	0.92	33.53	0.88	0.12	21	3.63	2.5
6.	Mirpurkhas	0.25	0.07	0.47	60.54	1.54	0.42	11	4.43	1.71
7.	Umar Kot	0.45	0.13	0.65	42.70	0.84	0.19	15	3.96	2.31
8.	Badin	0.16	0.12	0.46	12.68	0.74	0.26	9	2.88	1
9.	Sanghar	0.61	0.28	1.12	66.63	0.56	0.07	13	3.25	1.25
10.	Shaheed Benazirabad	0.45	0.33	1.2	8.49	0.5	0.26	11	3.14	1.43
11.	Noushahro Feroze	0.88	0.52	5.32	10.41	1.46	0	8	2.53	3
12.	Khairpur Mirus	0.8	5.5	6.2	40.4	0	0	10	3.1	6
13.	Ghotki	0.76	0.29	2.93	28.31	0.22	0	10	2.89	0.02
14.	Sukkur	0.78	0.44	2.35	16.56	0.13	0	9	2.8	2.85
Average		0.60	0.59	1.73	27.36	0.59	0.12	11.14	3.46	2.18

XII. COTTON AREA AND PRODUCTION/YIELD IN SINDH

According to Federal Committee on Cotton, the target of cotton crop for the year 2014-2015 was estimated as under:

Province	Area (Ml.ha)	Production (Ml. Bales)
Sindh	0.650	4.200

Source: 1st Meeting of Federal Committee on Cotton February 27, 2014, Ministry of Textile Industry, Islamabad.

During 2014-2015 in the Sindh Province, cotton crop was sown on an area of 0.59 million hectares against the target of 0.65 million hectares, which was 9% less than envisages target due to shortage of irrigation water at the time of sowing (Table 5).

Table 5: Sowing Position of Cotton in Sindh Province during 2014-2015.

Sr. No.	District	Target area (Hectares)	Sowing up to 05-7-2014 (Hectares)	Percent
1.	Tharparker	1,200	1,194	100
2.	Umerkot	25,500	28,433	112
3.	Mirpurkhas	40,000	38,110	95
4.	Sanghar	136,000	127,827	94
5.	Tando Allahyar	24,000	24,480	102
6.	Tando Muhammad Khan	5,000	4,750	95
7.	Badin	23,000	21,850	95
8.	Thatta	5,000	5,500	110
9.	Karachi	1,000	560	56
10.	Jamshoro	19,000	16,150	85
11.	Hyderabad	8,000	7,360	92
12.	Matiari	42,000	41,580	99
13.	Shaheed Benazirabad (Nawabshah)	60,000	60,000	100
14.	Naushahro Feroze	40,000	33,800	85
15.	Khairpur	80,000	77,600	97
16.	Sukkur	35,000	29,245	84
17.	Ghotki	90,000	63,000	70
18.	Shikarpur	100	100	100
19.	Jacobabad	0	0	0
20.	Kashmore-Kandh Kot	0	0	0
21.	Qambar-Shahdad Kot	0	0	0
22.	Larkana	3,200	1,120	35
23.	Dadu	12,000	10,800	90
Total		6,50,000 ha 0.65 million ha 16,06,150 ac	5,93,458 ha 1,466,434 ac	91

Source: www.sindhagri.gov.pk

Table 6: Seed cotton Arrival in Factories of Sindh during 2014-15 up to 1st March, 2015

S. No.	Districts	Arrivals in Bales
1.	Hyderabad	266,731
2.	Mirpurkhas	403,461
3.	Sanghar	1,506,841
4.	Shaheed Benazirabad (Nawabshah)	313,761
5.	Naushahro Feroze	258,265
6.	Khairpur	250,548
7.	Ghotki	226,255
8.	Sukkur	415,159
9.	Dadu	44,664
10.	Jamshoro	146,800
11.	Badin	54,700
12.	Balochistan	77,002
Total This year's Arrival of Sindh		3,964,187
Total Arrival of last year		3,753,532
Difference in Arrival from last year		210,655
Increase of Sindh		5.61%

Source: Pakistan Cotton Ginner's Association (PCGA) www.pcgga.org

According to Pakistan Cotton Ginner's Association (PCGA) report of 1st March, 2015 the seed cotton arrival of Sindh was 3,964,187 bales (3.96 Million bales) which are 5.61 % increase against the last year's arrival. The yield achieved during year 2014-15 (3,753,532) which was 10.71% decreased against target of 4.20 million bales.

XIII. PROJECTS IN OPERATION

ICARDA's Pak-US Cotton Productivity Enhancement Project is in operation at CCRI-Sakrand since June, 2011.

XIV. WEBSITE OF INSTITUTE

The Institute's website <www.ccris.org> is being updated through uploading of the required material. Growers and scientists are welcome to visit the website and give valuable suggestions for its improvement.