

Introduction

Brief history with summary of past achievements

Indian Central Cotton Committee used to sponsor cotton research schemes on an adhoc basis till the work of the committee was taken over by the ICAR in 1966. All India Coordinated Cotton Improvement Project (AICCIP) initiated by the Council in the year 1967 with headquarters at Coimbatore gave new fillip and direction in terms of multidisciplinary and multi-centre approaches with the active involvement of State Agricultural Universities. The project has contributed significantly in tackling location-specific problems in terms of varietal improvement and development of appropriate production and protection technologies. However, looking to the low level of productivity which is primarily due to the fact that the major cotton growing area is under rainfed conditions and the need for expanding the research efforts in the spheres of basic and fundamental research, the **Central Institute for Cotton Research** was established at Nagpur in the year 1976 by the ICAR. The erstwhile Regional Station of IARI at Coimbatore (Tamil Nadu) became a part of CICR simultaneously to cater to the needs of southern cotton zone. In the year 1985, the IARI Regional Station at Sirsa (Haryana) was transferred to CICR as a regional centre for the northern irrigated cotton zone.

Summarized Past Achievements

The main mission of CICR is to improve the production, productivity and profitability of cotton cultivation in different agro-ecological cotton growing zones through the development of relevant, feasible and economically viable and ecologically friendly production and protection technologies including the development of

improved varieties and hybrids and promoting fundamental research .

Regional Station, Sirsa

- The seed development studies showed that the cotton seed recorded highest seed index, germination percentage, vigour index and lowest moisture content after 55-60 days of anthesis.
- The crossing period between 15th August and 15th September was found suitable for hybrid seed production from yield and quality point of view under north zone.
- Insecticide resistance in *Helicoverpa armigera* in north zone was monitored and observed that the resistance to synthetic pyrethroids such as cypermethrin and fenvalerate was maximum i.e. from 25 to 83% whereas the resistance to other insecticides such as endosulfan and quinalphos ranged from 16 to 75%.
- Carbendazim, MEMC and Thiophanate methyl were highly toxic to both the root rot pathogeons showing complete inhibition at 50 ppm. In addition to this mancozeb, captan and celest showed complete inhibition of *R. solani* at 50 ppm. Captan at 100 ppm and celest and mancozeb at 1000 ppm showed complete inhibition of *R. bataticola* also.
- Two isolates of *T. harzianum* and one each of *T. viride* and *G. virens* showed promise against *R. solani*. Similarly, an isolate of *G. virens* proved effective against *R. bataticola*.
- Application of a combination of *T. harzianum*, *T. viride* and *G. virens* @ 0.33% of each culture W/W in pot





- culture studies was effective in reducing root rot of cotton in *arboreum* variety DS-1. Experiments on coating the seeds @ 0.4% to 1.0 with bio control agents showed root rot reduction and yield improvement in field to some extent.
- Testing of nutritional requirements of bio control agents showed that nitrogen source was essential for the spore germination of *Trichoderma* and *Gliocladium* species. Culture filtrates of bio agents raised on different carbon and nitrogen sources showed significant inhibition of root rot pathogens.
 - Screening of cotton varieties against root rot in sick field revealed that LH 900 showed minimum disease incidence (19.1%) as compared to (63.1%) check variety DS-1 with maximum seed cotton yield. Screening of 132 *G. hirsutum* germplasm lines (1993-2000) revealed B-1371, A72-62, Arkansas green, FS-128, Coker 200-4cy, GR 6015, Texas 34, TH 144-3-62, DL-1, SV-5B, C-1098, C-6-58, C38, Akala 56-25, SFA 243 and PH 36 A as tolerant to root rot.

Surabhi, a long linted variety - invading new frontiers

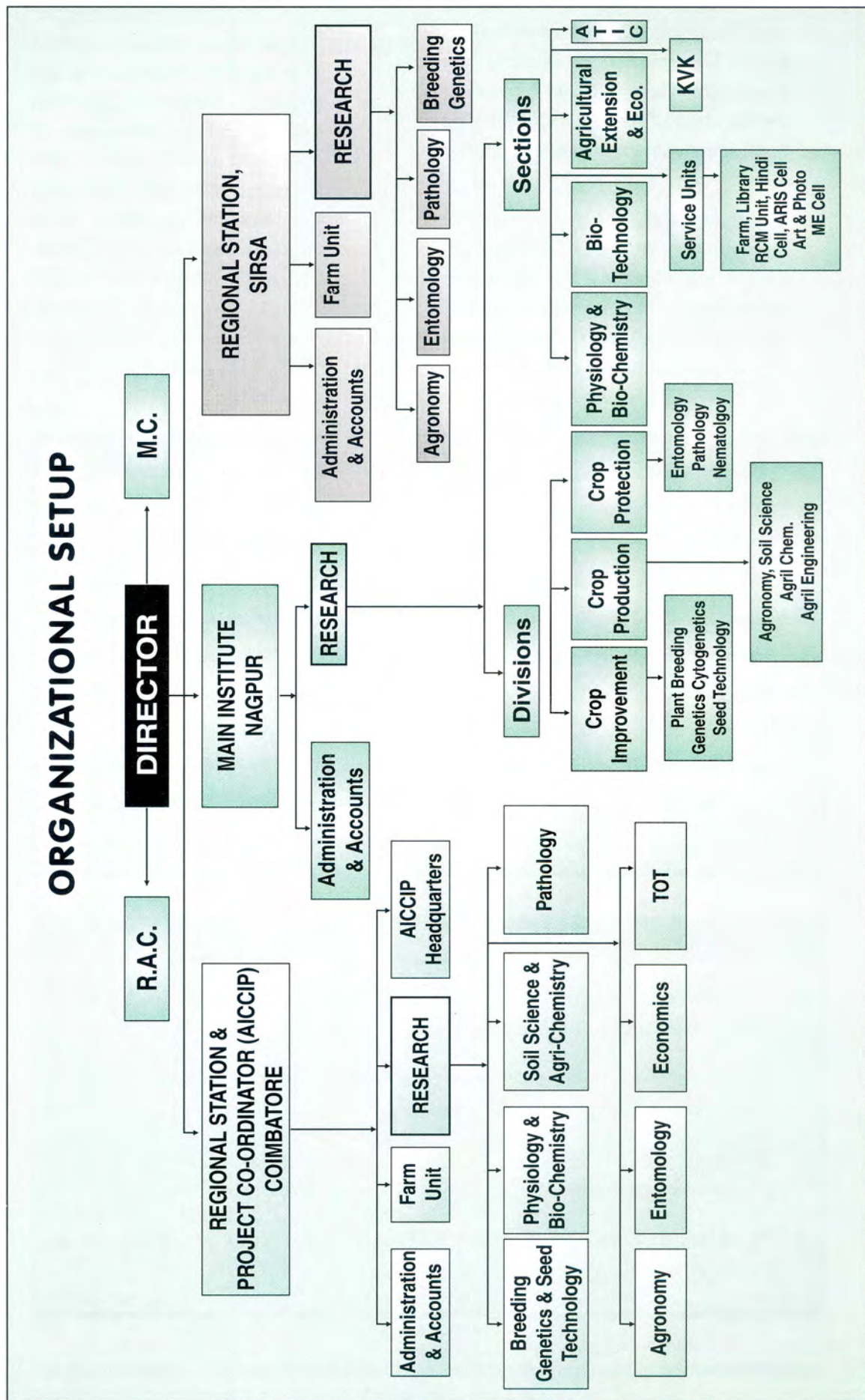
SURABHI, is a *G.hirsutum* high yielding, long staple variety released by the Coimbatore Regional Station of the Central Institute for Cotton Research. This variety is occupying 70,000 ha area in the State of Tamil Nadu during 2004 summer season. It is now preferred to be cultivated under both rainfed and irrigated tract of Tamil Nadu. The crop suffered less pest damage and hence the farmers were able to harvest better quality cotton. Surabhi has 2.5% span length of 33 m.m., fibre strength of 23 to 25 g/tex and micronaire ranging from 3.6 to 3.8 and ideally replaces the quality of MCU 5 VT / MCU 5 as 80s cotton with 25% higher yield of seed cotton under irrigated farming of Tamil Nadu and is seen to replace LRA 5166 and DCH 32 (Jayalakshmi) area of southern zone. It met the requirements of the textile industry and fetched the highest price of Rs. 3,000 to Rs. 3,400 per quintal of seed cotton .

MANDATE

- To conduct basic and strategic research on cotton to improve yield, fibre quality and by-products.
- To create new genetic variability for location-specific adoption in cotton-based cropping systems.
- To assist in the transfer of modern cotton production technology to various user agencies.
- To extend consultancy and link with international agencies to accomplish the above mandate.



ORGANIZATIONAL SETUP



Financial Statement

The budget grant and actual expenditure for the year 2003-2004 are furnished below :

Budget Sanctioned and Expenditure			(Rs. in Lakhs)
SCHEME	SANCTIONED	EXPENDITURE	
Plan	102.00	101.99	
Non-Plan	967.00	863.08	
PLAN SCHEME			
NSP Crop	000.00	000.16	
AICCIP	472.00	472.00	
KVK Scheme	33.10	25.74	
TMC Scheme	128.20	121.46	
NATP Scheme	124.00	107.29	
AP CESS FUND			
IQRC&P Scheme	3.48	2.88	
IICBP	2.22	2.54	
ENBCHABC	1.62	1.85	
RCM	1.50	1.35	
R DEPOSIT SCHEME			
NRI (ICAC/CFC/14)	33.22	13.25	
DBT Scheme (Development of Molecular Tools)	5.89	0.56	
FLD in Cotton	26.13	21.88	
TMC MM I (DAC)	21.04	18.18	
FLD KVK	-	0.23	
DUS Scheme	1.35	-	
Maintenance of Breeder Seed	16.00	16.00	
Incentive for Breeder Seed production	5.10	5.06	
TMC MM II	37.18	27.40	
Aventis	-	0.82	
Toxicity of Bt (CRY)	7.97	4.78	
Bt. Resistance Monitoring (Mahyco)	9.58	8.33	
Indofil	2.50	0.13	
Bt. Tech	5.86	0.78	

Staff Position

Name of Post	Sanctioned Cadre Strength				Post Filled Up			
	NGP	CBE	Sirsa	Total	NGP	CBE	Sirsa	Total
Director (RMP)	1	-	-	1	1	-	-	1
P.C. & Head	-	1	-	1	-	1	-	1
Scientific	54	26	5	85	38	18	6	62
Technical	48	32	10	90	44	29	10	83
Administrative	33	11	8	52	31	10	8	49
Supporting	78	44	15	137	69	42	15	126
KRISHI VIGYAN KENDRA								
Training Organiser	1			1	1			1
Technical	9			9	9			9
Administrative	2			2	2			2
Supporting	2			2	1			1