1. Introduction

Cotton, the king of apparel fibre, has played a key role in the development of human civilization. Even today, it occupies an outstanding position in the textile industry despite pressure of manmade fibres and blended fabrics. Gujarat is one of the leading cotton producing state in the country. Gujarat contributes substantially to the national cotton area (24%) and productions (37%).

Originally, local desi cotton varieties were grown in the state. The East India Company attempted to introduce American cotton for cultivation during 18th Century on experimental basis on cultivators' field in Gujarat. But since no success was achieved, efforts were made to improve indigenous cottons, particularly after the establishment of cotton research station at Surat in 1896, where systematic work on cotton research started in 1904. It was visualized to combine sturdiness of Asiatic cottons and boll size and lint quality of new world cottons. Accordingly systematic interspecific hybridization work was started in 1923 which was expanded under the scheme for interspecific hybridization in cotton. The research work was strengthened from time to time under state department of agriculture and also under the aegis of ICCC. Inception of All India Coordinated Cotton Improvement Project in 1967 gave it a further boost. At present, cotton research work is carried out through a well knit system at one main (Surat), 6 (Bharuch, Talod, Anand, Viramgam, Junagadh, Amreli) regional and 6 sub stations (Hasot, Achhalia, Dhandhuka, Ratia, Khapat, Bhachau) distributed in the four SAUs all over the state. The All India Coordinated Cotton Improvement Project currently operates at one main centre at Surat and one sub centre at Junagadh. However, AICCIP experiments are conducted at several voluntary centers like Bharuch, Viramgam, Talod, Anand, Amreli and Dhandhuka.

Since its establishment in 1896, the cotton research station, Surat has been a trail-blazer for its research achievements. Though some varieties were evolved earlier, it got first shot in the arm when the first ever Indo-American variety **DEVIRAJ (170 Co2),** involving American and Asiatic blood was released in 1951 after several years of intensive efforts with inter specific breeding materials. Release of first intra hirsutum hybrid cotton **"HYBRID-4"**, from this centre in 1971 was another landmark in the history of cotton. This hybrid proved to be harbinger for researchers elsewhere in the country as well as abroad. Then came the first ever budded cotton **G. Cot. 101,** which was released in 1977. This cotton combined the properties of perennial as well as annual cotton and is especially suited to the needs of adivasi farmers in the non-conventional cotton areas. Concurrent efforts for development of desi hybrid culminated in the release of hybrid **G. Cot.DH-7** in 1984. This was another feather in the cap of this station. In fact, it proved to be a trend setter for development of desi hybrid in other states of the country. In 1989, the first ever long staple desi hybrid **G.Cot.DH-9** was released. First GMS based desi hybrid of Gujarat **G.Cot.MDH-11** was released in 2002. Similarly first ELS hybrid **G.Cot.Hy-102 (H x B)** was released in 2002. The first ever Bt cotton hybrids by Public Sector Institute was released as **G. Cot. Hybrid - 6 (BG-II)** and **G. Cot. Hybrid - 8 (BG-II).** Thus the station has the distinction of several firsts to its credit and it is quite heartening to note that many varieties of Gujarat have been widely acclaimed in other states.

Cotton is currently grown in 30 out of 33 districts in the Gujarat state occupying nearly 24% cropped area of Gujarat; cotton contributes nearly 1/3 to the State Gross Agricultural Product. Area wise still Gujarat is at the second position after Maharashtra cultivating in the 26.18 lakh ha with production of 104.00 lakh bales (2017-18). The average productivity is 675 kg lint/ha which is higher than the national average. About 60% area of Gujarat state is under rain fed cultivation and there is a substantial yield gap between irrigated and rain fed area. The productivity more or less remained stable during the reporting period, however, the area came down from initial 27-28 lakh ha to 25-26 lakh ha due to pink bollworm infestation on Bt cotton and replacement with pulse crops due to remunerative prices. However, concerted efforts by different stake holders in PPP mode through rigorous planning, collective effort and implementing short and long term effective strategies to combat pink bollworm.