

DYNAMICS AND NEW DEVELOPMENTS OF THE GINNING INDUSTRY IN SAURASHTRA



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Saurashtra,

A Region of western **India**, located on the cost of Arabian Sea in the state of Gujarat.

Geographical situation of Saurashtra is very suitable for "**COTTON CROP**". The area is mostly having black cotton soil & hilly topography. The area is surrounded by sea. Atmospheric temperature range varies between **14oC to 44oC** during the cotton season. Cotton Plants are also having an advantage of the winter wind and lots of dews.

Because of all above factors & situations, the cotton fiber is having some special features. The cotton fiber's (SHANKAR-6) maturity is comparatively more; fiber is having more elongation & dye consumption is low; fiber surface is having extra wax. Thus, **SHANKAR-6** cotton of Saurashtra has procured a frontier position in the world market.

Saurashtra is having total land area **6.34** million hectares and agriculture land is **4.17** million hectares. In season 2008-09 Seed-cotton cultivation area is more than **1.6** million hectares. The production of raw-cotton in season **2008-2009** would be approximately **7.0 to 7.5** million Indian bales (@168 kgs.) in Saurashtra. This is approximately **65%** production of GUJARAT & **25%** production of INDIA.

The production of cotton has increased by leaps and bounds since last ten years in Saurashtra due to the increase in the cultivation area (sowing area) of seed cotton and also due to the increase in the yield. Prominent uses of BT Seeds increase the production. The farmers of the region are hard working. They are aware of technology and using scientific methods of cotton farming.

In Saurashtra, an average production of cotton approx. **900kg / hectore** & the maximum production of cotton approx. **1500kg / hectore** is obtained in some areas. These resulted in increase in crop size from **0.3** million tons to more than **1.20** million tons of cotton in last 10 year. There is a possibility of increase production of cotton in Saurashtra.

The number of (ginning and pressing) composite units increased rapidly from **50** to roughly **450** units in just last **10** years. Most of these units have been setup with modern technology and are fully equipped with the required equipments with setup of online automatic process.

Right from input till final dispatch no direct manual handling is done, this has resulted in quality product which is containing less contamination. The process involves pre-cleaning of the raw cotton and then this is automatically feed to double roller ginning machine which preserves the length of the fiber with lesser nap. Hereafter the

cotton is cleaned in the post cleaner and then the cotton is sent through online humidification to bale press. The entire handling is done by pneumatic and conveyer belt system. The pre-cleaning and post cleaning machines used are of advanced type.

Many of the units have installed the most advanced online lint conditioning systems used in developed countries using hot humid air, which eliminates chances of,

- 1 developing yellow spots & color during cotton storage,
- 2 possibilities of bacterial growth & cake formation
- 3 Addition of contamination during the process.

This method of lint conditioning maintains uniform moisture distribution in each and every fiber of cotton and hence better quality.

In most of units are installed fully automatic, double box auto tempering type revolving press with auto weighing & packing of bale. Online weighing of cotton Bale, Raw cotton and cotton seed and data storage of the same is now in developing stage.

Some ginners also have installed ultramodern contamination scanners on trial bases for further reducing the contamination.

Due to hot & dry climatic conditions in summer the humidity of Raw cotton reduces to as low as **4.5 %**. Ideal humidity for ginning process should be **7.5%**; to obtain this the use of (hot moist air based) conditioning system has also been installed on experimental bases.

Ginners and farmers came in direct contact with each other in the last few years, the requirement of trade is understood by the farmers and they are aware of minimizing the contamination in the cotton. Moreover as they carefully hand pluck the raw cotton from the plant they get cotton with less trash which is a good raw material for ginning industry.

Appropriate grading, sorting, blending and heaping of seed cotton is a unique feature of Saurashtra ginning industry, which has resulted in less variation from bale to bale.

The overall Trading environment has improved substantially. Along with modern equipments the ginners are also developing good infrastructure facilities which includes,

- Concrete Platforms & shade for Raw cotton unloading and heaping
- Dust free compound
- Well planned Process houses constructed considering the process requirement.
- Utility buildings as per the requirement.
- Concrete approach roads.
- Fire fighting systems
- Godown and platforms for cotton bales and cotton seed.

Ginners of Saurashtra have made remarkable advancement in last few years. Which has resulted in,

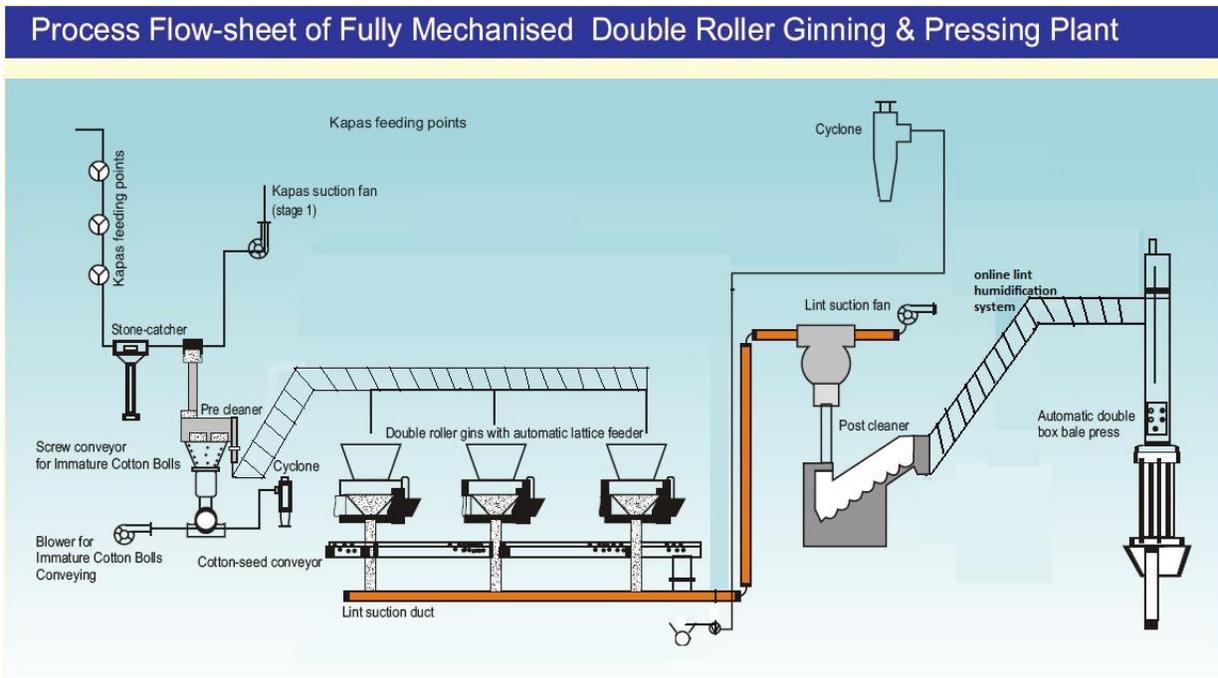
- Great Reduction in contamination level.
- Decrease in trash percent from 3.5 % to < 2 %
- Consistency of cotton quality has improved due to Increase in average production capacity of each unit from 100 bales per day to 250 bales per day

- Better bale packing by using cotton cloth & PAT strap instead of Jute cloth & iron strap.

Ginners of Saurashtra has made this development in short period of time possible by information sharing with each other, understanding the needs of the end user and adaptability for the new progressive ideas. They have established the **Saurashtra ginners association which has launched their website www.sgaindia.org** containing very useful information

At Present the cotton industry in Saurashtra is facing very tough time, Because of the over processing capacity in the region and moreover The Govt. of India has declared very high minimum support prize of seed cotton which the ginners can not afford to pay looking to the current market prize of the cotton.

& hence The Ginners are now going for further integration of their process such as Cottonseed Delinting, Oil crushing, Oil Extraction, Refining Industries.



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