

THE NEW GINTEX III FIBER TREATMENT SYSTEM RESPONDS TO THE US DEMANDS YIELDING AN ADDITIONAL 4.32 LBS OF YARN PER BALE.

Results: As seen in figure 1, the average increase in yields within five US mills averaged on a single bale lay down comparison measured a **reduction** of 0.9% in non re-workable waste equal to 4.32lbs of yarn per bale. *With Gintex III cotton fibers move freely in the direction intended allowing foreign matter to be released while good spinnable fibers are spun into yarn.* Further analysis of the extracted waste in these studies measured a higher trash content and a reduction in lint (see figure 2). This in part is due to improved opening and increased fiber strength achieved through the addition of humidity and Gintex III's conditioning agents.



Figure 2: Shirley Trash Analysis of the Waste extracted from a 4 cell cleaner.

Advances in the Application:

Today's new top feed mount is far superior. Advances in the non-drip, dual, fan type spray heads produce an even distribution of conditioning agents as the fibers are consumed in the opening room. Humidity added at the pump together with the newer Gintex III's conditioning agents are atomized and quickly absorbed into the wax like surface of a cotton fibers. As a result compressed fiber warehoused for an average of 6 to 8 months are immediately conditioned improving the opening, fiber strength, and ability to release foreign matter.

	Control	Gintex III	Difference
Mill 1	4.57%	3.11%	-1.46%
Mill 2	3.84%	3.18%	-0.66%
Mill 3(trashy cotton)	2.91%	2.76%	-0.15%
Mill 4	6.5%	5.143%	-1.357%
Mill 5	9.88%	8.98%	-0.90%
AVERAGE			-0.905%

Figure 1: Percent loss through Opening and Carding

Equally important using the AFIS technology the lint removed recorded an increase in short fiber content and neps *encouraging the longer fibers to continue through the process*.

Figure 3: Lint		Control	Gintex III
removed from extracted Waste.	Short Fiber Content	9.9	10.8
	Neps	376	385

What is the overall affect on cleaning? Using AFIS technology, card sliver measured a reduction in VFM (Visible Foreign Matter) of 33%. This trend in the above mentioned mills held true varying between 15% to 35%.

(80 reps.)	Control	Gintex III	Difference
SFC	7.57	7.88	+ 0.31%
Dust	118	44.67	-62.14%
Trash	10.17	7.67	-25.58%
VFM	0.18	0.11	-33.33%
Neps	59.17	50.33	-13.80%

Figure 4: AFIS analysis of the card sliver(40 reps /sample)

We would like to sincerely thank and recognize ITT, USDA and various mills for their participating and continued partnership towards the process improvement of cotton fibers.