MILL USE OF RD +B HVI DATA

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Abstract

This paper describes the way cotton bales were blended at Fruit of the Loom Mills before High Volume Instruments were available and outlines developments which have contributed to the use of USDA classing office HVI data to produce lay-downs and blends. Specifics of Fuit of the Loom's procedures for using the two color readings, RD and +B, rather than classer's color grade to produce lay-downs are presented, and our confidence in USDA classing data is expressed.

Presentation

Let me begin by thanking you for the opportunity to be here and talking about classing of U. S. Cotton by means of H.V.I.

I'd like to go back in time real quickly and tell you how we as mill people used to do things as far as putting our mixes together in the opening rooms (the first process of putting cotton bales into a textile plant). At Fruit of the Loom, we had one man that took the test results from the machines that were on the market at that time and would put it together into what was called "categories". For example, on micronaire, we would divide it into three parts. Part A would have 35-39. Part B would be 40-44 and Part C would be 45-49. Staple lengths would be done similar, dividing 1-1/32,
1-1/16 and 1-3/32. For these three groups, we would use numbers 1, 2 and 3. We did not have groups per color because we had no machine measurement except the human eye.

What we did have was a small room with no other light except that of a fluorescent black light. Actually, they called it black but it was purple. We knew that ultra violet reading of wide degrees would effect how cloth would absorb bleach and dye. So, in preparing mixed, we would check all bales under the black light and try to put a bale with as near as possible
U. V. reading, as the bale in the same location in the previous mix. In other words, we wanted the bale in Location No. 5 to be of the same U. V. day after day. I should mention that at that time, all bales were hand fed into the hoppers. Blending bales together was limited as to how fast a person could hand carry layers from each bale before the hopper chewed it up.

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As we, as an industrial world developed, along came the test lines as they were called. These lines allowed us to test in-house our inventory of bales for Mic and length.

Never being satisfied with what we had, we were constantly looking for machines that would do more, faster. Thus, the advent of the high volume instrument testing. Like most all inventions, further refinement had to be made to increase reliability and/or repeatability.

While all these advances were taking place, the promotional arm for U. S. cotton, Cotton, Incorporated, was working extremely hard on computer programs that allow textile mills to use the data from these machines, and used correctly, would produce the best possible product of yarn-fabric-finished product.

We are currently using Cotton, Incorporated EFS software along with USDA HVI data. This enables us to keep the cotton quality consistent and our inventory at a minimum.

To this point, I would like to thank the Cotton Classing Division of the U.S.D.A. for their efforts to bring about a more reliable and accepted grading system for the U.S. farmers' cotton. As late as 1993, we at Fruit of the Loom spent close to one million dollars setting up one of the best cotton testing labs in the world.

For several years, we collected and compared data from our HVI line to the USDA data. Once we were convinced that the USDA data was adequate, we began using a percentage of the data and continued to increase the usage each year. Fruit of the Loom is now using 100% USDA HVI data.

I was asked to talk about how we use RD and +B (HVI color) in our laydown procedures:

Fruit of the Loom categorizes each bale of cotton for color by using the HVI color and quadrant which is a combination of RD and +B. To create the category, we tested and saved samples with every possible HVI color and quadrant that we currently purchase. We then classed these samples into consistent color groups to create an adequate number of color categories. Once the bales are in inventory, each Mill will pull mixes based on the warehouse averages. The warehouse averages are maintained consistently by receiving uniform shipments.

This is a big advantage of using RD and +B along with other HVI data. We are able to view cotton several weeks prior to shipment which enables us to keep the cotton consistent from shipment to shipment, from laydown to laydown, and also from Mill to Mill. The use of RD and +B readings has allowed us to better manage the color quality of cotton that is put into each mix.

In the two years that we've been accepting all H.V.I. data from U.S.D.A., our mills haven't missed a beat. We have

not had one shading, streaking, or bleaching problem as a result of the raw cotton.

I ask that you stand behind the A.M.S./Cotton Classing Division of the U.S.D.A. and support them for the hard work they do. You may hear negative remarks from time to time; but the facts are clear, no other testing programs – private or otherwise – can give as good of reliable data as they do.