



SAMUEL JACKSON, INCORPORATED
Dallas Office

PHONE: 972-475-6593
MOBILE: 214-695-0158
FAX: 509-562-8535
E-MAIL: neil@samjackson.com

To: Drying System Update Recipients
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June 2003 Drying System Products Update

How a Drying System Affects Turnout

A good drying system takes moisture away from the lint and prepares it for efficient cleaning. On the surface it seems like both of these things would reduce turnout (less moisture weight and less trash weight). In fact, it's quite common to hear that over-cleaning cotton lowers the turnout. What is not common is for the distinction to be made between pre-cleaning and lint cleaning.

It is true that excessive lint cleaning reduces the amount of leaf trash in the bale as well as throwing out some good fiber, as lint cleaners are not 100% efficient (and what is?). This does result in lower turnout and is the reason ginners shoot for 3 and 4 leaf grades and not 1s and 2s. But, this is only half of the story and if you ignore the other half you are missing out.

In pre-cleaning, cotton is dried so that it can be cleaned efficiently. At this stage of the process cleaning actually helps improve turnout **if** the cotton is dried before it hits the cylinder cleaners. This prevents good fibers from becoming entangled with trash and being thrown out in the trash pile or ending up as motes.

The turnout difference with a good drying system is no small change. Several Sam Jackson Dryer users report turnout improvements of 1-3%! To give you an idea of what that means, a one percent increase in turnout from 33% to 34% would equate to an extra 15 pounds per bale!

New Dryer Installation at Castro Coop Takes a New Approach

There was enough wet weather in West Texas last year to provide quite a test for many drying systems and Castro Coop Gin was no exception. Over the years they had been making improvements to their drying system, including a recently added vertical flow dryer with a horizontal cleaner. They enjoyed the extra cleaning on dry cotton, but after last season decided to make further improvements to help them handle the more challenging wet cotton.

We were very pleased when they contacted us for help and both parties benefited from the trust we had developed with each other on past projects. Rather than scrap the existing dryer, our engineers worked with Castro Coop on a new approach that incorporated the power of a Collider Dryer while keeping the benefits of the vertical flow dryer.



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The Collider is the first dryer in the system, which allows the cotton to be thoroughly dried with double the previous air volume. This provides the Diamond K with dry cotton, which provides some additional fluffing. Now we all hope that Castro Coop is spared from a wet harvest season, but everyone feels much better now that the new system will be in place for whatever comes their way.

My Home Air Conditioner and Your Gin Heater

Last week I happened to be on the driving range (those of you who have played golf with me can attest that I need the practice!) and had an interesting conversation with a guy who repaired and sold air conditioners. We shared several stories about our work and there was some common overlap including late night service calls and the importance of good service.

When I asked him what his strongest selling point for a new air conditioner was, he said it was easily efficiency. He explained, people hate high electric bills and new A/C units were much more efficient. He added that when most folks saw the potential savings they were much more likely to sign up.

I thought, hey this guy is speaking my language! I hate high electric bills and I talk to folks about efficiency and fuel savings everyday. I couldn't help but wonder if I could benefit from a new, more efficient system. So I asked him for details.

The most efficient A/C that was compatible with my furnace was \$4,600. It offered a 25% energy savings and an expected lifespan of 15 years. Here near Dallas, our air conditioners might be used anytime of the year, so I decided to assume that it would save me 25% off each months bill (it will be more in the summer and less in the winter, but should roughly balance out). My average monthly electric bill is about \$100, so if I saved an average of 25% my new bill would be \$75.

That sounded pretty good, but at that rate the breakeven point would be 15.3 years. That means at the end of the unit's lifetime I would have just broken even. When I told him that deal didn't sound too appealing to me, he asked what kind of return do I offer our gin customers.

I explained to him that depending on what one of our customers bought from us, they enjoyed a 20-40% fuel savings. The example I gave him was for an 8-million Btu/hr heater with a Moisture Mirror and Sled II. A domestic customer could buy all that equipment for about \$32,000. For a 25,000 bale/year gin the potential annual fuel savings can easily be \$15,000/year. In just over two seasons the heater would pay for itself in fuel savings alone. Accounting for performance, the pay off is even faster than that!

He agreed that was a tremendous deal and asked if gins could easily afford that investment. I explained that many can and for those that can't we offer them an option to pay it off by the bale for up to five seasons. In that case the equipment literally pays for itself faster than the customer pays it off...the gin essentially earns a dividends with each bale ginned!



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Drying System & Fuel Savings Calculators

If you want to see how changes to your drying system can affect your operation, take a look at our online calculators. These calculators give you answers for your gin and can help you decide on your best options.

The basic fuel savings calculator can help you determine your rate of return on investing in a Moisture Mirror:

<http://procdcd.samjackson.net/calcs/fuelsave-calc.html>

The NEW Drying System Calculator is one part simulator, one part calculator, and one part drying system fundamentals. It allows you to get custom answers about your drying system.

<http://procdcd.samjackson.net/calcs/dscal.html>

Is Now the Time for Improvements?

I am going to surprise you! You think I am going to say now is the perfect time for everyone to make improvements, but I'm not. I know that everyone's situation is different and there are many factors to consider.

What I will say, is that for gins that are planning on being around for several more years and are looking for ways to strengthen their bottom lines and provide extra grower benefits, there are some wonderful opportunities to take advantage of in drying system improvements. The sooner you take advantage of these opportunities, the sooner you will reap the benefits.

For more information on improvement options, visit our website at www.samjackson.com or give one of us a call. We look forward to helping you find the right improvements for you.

Thanks!

Neil Turner
Vice-President of Sales & Marketing

Drying System Updates are written on a periodic basis to keep our customers informed of the latest developments. To receive this update by e-mail or to be removed from this update recipient list, please contact Neil Turner using the information at the top of this letterhead.