

*"The Genesis IV controller is a great feature. I like the touch screen facility and all the available options."*

Jeff Beavers - Director of NC Live Operations



Single-stage references



USA

# MOUNTAIRE FARMS

Siler City, North Carolina USA



Front cover:  
Left to right, Lou Sharp, Chick Master Sales Manager  
and Jeff Beavers, Director of NC Live Operations

*A new expansion for this superb hatching facility in North Carolina includes state-of-the-art Avida single stage setters*





*"I have said it before and I'll say it again, single stage produces a much better quality chick"*

Jeff Beavers - Director of NC Live Operations



Quality Avida chicks

# Mountaire expands with Avida single stage systems

Before I visited North Carolina I did a little research on what I might see as I traveled through this attractive South Eastern State. I learned about the State's best-known scenic attraction, the Great Smoky Mountains, and I read the local folklore that warned that the nefarious pirate Blackbeard's headless ghost can sometimes be seen and heard when the wind is blowing inland off Ocracoke Island to the east. I didn't see either of these wonders but I was lucky enough to behold the wonderful sight of the recently expanded Mountaire broiler hatchery at Siler City, nestling in the beautiful North Carolina countryside just 45 miles southwest of Raleigh.



Mountaire, Siler City, Setter room with 33 Avida A18-54 setters

The hatchery building looks very impressive. Inside the first thing you notice as you tour this 38 year old facility is that the rooms and the machines are extremely clean and well maintained with exceptionally high levels of bio security and sanitation hygiene. Siler City is one of three hatcheries owned by Mountaire that set over six million eggs per week in total. Since the expansion the NC Hatchery is ranked as one of the 5 largest hatcheries in the US. The NC Hatchery facility has the capacity to set over 2.8 million eggs per week and produce over 2.4 million chicks per week. The company's roots were planted

back in 1914 with a feed business in Arkansas. The Mountaire Corporation was formed in 1971 and has since expanded to become the 6th largest poultry producer in the US, producing high quality wholesale and export products as well as value-added retail products for supermarkets. They employ over six thousand people in three complexes that also include feed mills, slaughter processing plants, and wastewater treatment plants.

eighteen C192 stainless steel hatchers as part of an extensive expansion program. They were one of the first US broiler hatcheries to join the 'single-stage revolution'. Director of NC Live Operations, Jeff Beavers, explained, "Before we decided to purchase our Avida single stage systems we visited Robert Pemberton at Goldkist (now Pilgrims Pride) down in South Carolina and Doug Host at Gold'N Plump up in Minnesota. We wanted to be sure we were going down the right path with this, but when we saw their machines and chick quality, we wanted that here. We felt it was the path to the future. We liked the idea of shutting the doors for 18/19 days, opening them up, clean and

sanitize the machine and it's ready for the next set". Jeff continued, "The important factor is that with single stage you have the opportunity to modify flock profiles to manage the hatch individually for all breeds and flock ages. We feel that we are on the cutting edge with the single stage process. There are no averages here. With multistage you know what you are going to get, the set points are the same and as long as you maintain good sanitation and maintenance you can usually maximize your performance. With single stage, once we shut those doors we can make daily changes for young, prime and old flocks, and different breeds, looking for the profile that some day will give us an even greater advantage over our competition".

The hatchery has also 58 older, but extremely well maintained, Classic 576 multistage setters, making this installation ideally suited for conducting research to compare the differences between the effects of the single and multi-stage process on the developing embryos. Their goal is to understand how each process affects the birds growth out on farm. Dr. Mike Wineland and his team from NC State University have been invited to perform a number of wide ranging trials at the



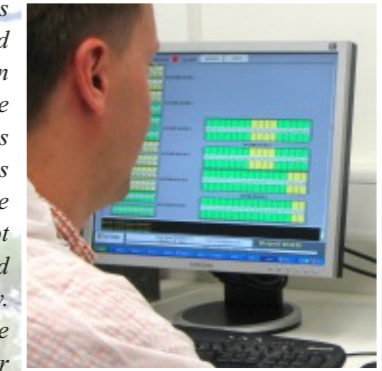
hatchery and the farms to help us to understand exactly what factors, during the incubation process, influence chick quality and grow-out performance.

"As far as the trials go we have seen a definite and very noticeable difference between single stage and multistage chicks. I have said it before and I'll say it again, single stage produces a much better quality chick", Jeff Beavers explained further, "The trials have definitely proven four main quality factors: (One) - Chick Weight, we have seen on average a difference of 2 to 3 grams heavier chicks from the Avida machines over an extensive twelve flock trial. (Two) - Hatchability, we have seen, on average, a 0.25% to 0.5% better hatch and often 2% or better on some young and old flocks". Jeff continued, "(Three), we have seen a 0.25% decrease in culls over a very large sample, and finally, (Four), chick appearance, we see a much more alert chick that lacks any sign of dehydration on the farm". Don Cagel, the Assistant Hatcher Manager also added, "The hatch window from the Avida's is also much tighter. As Jeff was saying, the chicks are heavier and their weights are more consistent and uniform. We have done a lot of work with Chick Master's Technical Support Manager, David Marsh on chick uniformity and we have consistently observed a weight range of 12-13 grams from the lightest to heaviest chick from the single stage machines and a 16-18 gram difference in our multi-stage chicks". Beavers added, "The ability to keep the temperature so even throughout the machine helps prevent a 'draggy hatch'. This is especially important with the less fertile older flocks".

On the grow-out farm trials, Jeff Beavers commented, "We have conducted at least 15 trials with Dr. Mike Wineland. What we are seeing is that single stage, initially, is ahead, but after three weeks the multi-stage birds

do catch up a little. Trial #10 showed a difference of 160 grams in favor of single stage and a somewhat better mortality. I will say, and not just because it is my hatchery, but we do run a really tight ship as far as sanitation is concerned and we always stay on top of our multi-stage machines as far as maintenance is concerned. This is the reason why we are not seeing such a marked difference in mortality. We are seeing single stage chicks, from older flocks especially, reaching their target weights 2 or 3 days earlier. Everything is very competitive in the poultry industry, we have some new ideas that are showing good initial results. We are working with Dr. Mike Wineland and he will be running trials to find averages over even larger samples" Jeff concluded.

Jeff and Don make full use of their Chick Master Galaxy hatchery control and monitoring system. Jeff commented, "The Galaxy is a very useful tool, especially on our trials. We can monitor CO<sub>2</sub> and humidity levels and use the data to change our stage programs. Looking at the graphs I can see if we are running the humidity too high on a certain stage or if the CO<sub>2</sub> was creeping back up. We can even start the stage programs all at the same time from my office. I really like to see three different set points on one graph, three things going on simultaneously, and how changing one set point affects other values - really useful information". Don confirmed, "Even if you don't have single stage, whatever CM equipment you have, Galaxy is a



**"Galaxy is a 'must have' management tool"**

Don Cagel  
Assistant Hatchery Manager

'must have' management tool".

When asked if they use the Chick Master On-line Parts Ordering facility, Jeff remarked, "Yes, we have started using it recently and we really like it. Jeffrey Saunders, our Maintenance Manager, and Don went to the Chick Master Open House in Medina OH last October where we saw it in action and they registered us immediately. We also signed up for your e-News, we really like the articles especially the "Ask the Eggsperts" questions to your David Marsh and Angel Salazar.

As I was leaving Jeff reflected on the long journey he has made in the ten years that he has been the Hatchery Manager at this impressive facility. "There has been many 'bumps in the road' over the years. This new refurbishment was no different but Chick Master stayed with it and there are no complaints here. A year and a half in and we have a few things in the hatchery that we still would like to change when we have the capital but overall we are very satisfied".



A busy Mountaire transfer using the Chick Master 54 egg flat

As I said my goodbyes and made my way to the parking lot, the light was fading and the warm evening zephyrs were oddly murmuring as they strengthened from the east. My mind returned to the nefarious pirate Blackbeard and the North Carolina folklore that I had been reading on my long journey here. I couldn't be sure but I thought that I heard a ghostly groan that sounded something like... 'Where is my head, where is my head?'