

Your last chance to register *for the*



This is going to be the best Open House ever and it's happening in our best year ever while we present the best products ever with the best team of talent we have ever assembled. Just go to www.chickmaster.com to find all the details that you need, but hurry.

Don't miss the opportunity of the year to improve YOUR hatchery!!

For more details and a registration form please visit chickmaster.com or contact Patricia Montane by telephone on +1 (201) 871 8810 ext 106.

Chick Master is taking its message around the world

Chick Master has a great deal to talk about these days. For example, not only have we recently supplied the largest hatchery in the world with our latest Avida single stage systems but we have also supplied them with our ground breaking Heat Recovery and Energy Management Systems. Chick Master has recognized expertise in all facets of incubation, engineering and ventilation systems and we want you to hear what they have to say to improve your hatchery. That is why, apart from our prestigious Open House in Medina, we have organized many seminars around the world. Why not check out our website to see if there is one planned near you?



Over 110 participants attended the Chick Master seminar in Porto Alegre, Brazil in September

Chick Master seminar provides ways to reduce energy costs

By Perry Lewis, Hatchery Manager, Perdue Farms, Indiana

I just recently attended a Chick Master seminar, where they had a lot of interesting ways to reduce energy costs. One of their energy-savings upgrades is their split cooling upgrade. You have heard me talk about this in the past. What this does is zone off the cooling. If the back is calling for cooling and the front not, then the back gets the cooling, not the front. Not only should this help with energy savings, it should also help keep the incubator from having temperature swings, which should help the hatch timing.

We have had the new Gemic controller on one of our hatchers for three weeks and the hatch looks good. Our plan is to look at getting controllers for all the machines and then tying all these machines together with a computer and program that can monitor them. This system is called Galaxy and made by Chick Master.

The Galaxy system will also have remote capability, which means that we will be able to go on the Internet and pull it up and see how the setters and hatchers are running. Actually the capability of this system will greatly assist us avoid potential problems.

I am also in the middle of putting together a quote for plenum rooms. These are rooms that will handle all the exhaust from the hatchers, so none of the exhaust will get back into the room.

Right now, we have ductwork that sets 4 to 6 inches above the exhaust. It pulls in most of the exhaust, but does not get all of it, and the exhaust that doesn't get ventilated out will eventually get back into the hatcher. Having the plenum room will help reduce and eliminate bacteria and mold.

Perry recently attended one of our Regional Seminars in Indiana. Thanks Perry for your participation.

SPIKING BROILER BREEDER FLOCKS

AFTER 45 WEEKS OF AGE

When broiler breeder flocks reach 48 to 50 weeks of age fertility usually drops. What are the possible causes for this decline in fertility?

- Older hens require more frequent mating by the males to maintain the same level of fertility.
- Obese or overweight females have a lesser ability to store semen. Thus, decreasing her fertility.
- Old roosters are less interested in mating activity.
- Excessive fleshing of breast muscle in males reduces their ability to complete successful mating with their females. Males exhibiting excessive breast fleshing will have difficulty mounting and staying on

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More tales from the *Ventilation Psychiatrist's office*

By Harri Cane a close associate of your old friends Ty Phoon and Cy Clone

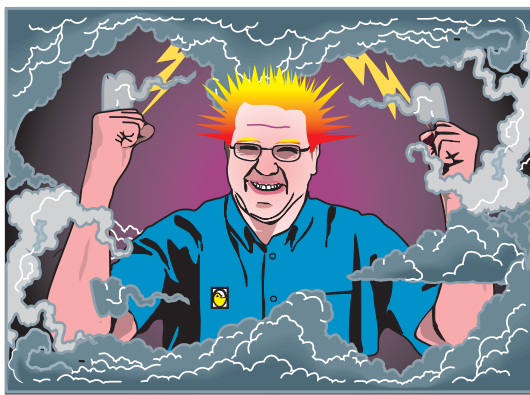
Hey Everybody! Harri Cane here. As usual I don't have much time (that's why most call me "Hurri"!), but I've been reading the articles that Ty and Cy have posted here in the past few weeks and I just couldn't go on without clarifying a few points for you.

First of all, I assume most of you realize that Ty and Cy are pretty windy guys and some of their humor is all wet, but overall they are pretty knowledgeable guys. I tend to bring more of an American view to the subject of ventilation than they do, so you may find my comments a bit different.

Yes, I am well aware that I haven't tuned into the cost of energy as I should have been. And yes, I fully admit that I have focused on capital cost when it comes to ventilation and tended to ignore the monthly cost of running the hatchery. Well, I also used to pay 29¢ for a gallon of gasoline. Bottom line I have found "energy religion" and I hope to convert you to my new way of thinking.

In our business, the business of hatching birds, we are fortunate enough to have a ready source of heat. We have developing embryos available to us in large quantities. Strangely enough we don't seem to be bothered by the idea of using energy to heat up air to use in cooling those embryos. We also accept quite calmly the idea of running chillers to remove the heat from water that we used to remove some of that same heat from our setters and hatchers. Strange folk we are. We pay to create the heat, we pay to remove the heat from the boxes, then we pay to remove the heat from the cooling medium. Strange we are indeed.

Recently I've been installing the Chick Master Heat Recovery Systems in various places around the world. I have to work fast 'cause the number of installations I have to do is growing faster than I ever thought possible. I've seen firsthand how it works and I want to share with you some of the amazing things I've seen.



Harri Cane, a close associate of your old friends Ty Phoon and Cy Clone

The primary heat recovery system alone is truly amazing. By restricting the water flow around the setter and hatcher loop so that the only water moving is that which is called for by the equipment, the pumps work much less than they do on older systems that circulated water in a continuous loop. In addition, the water coming back from the setter and hatcher rooms is much hotter than what came back when hot water got dumped back into the returning cold loop. When the outside air is cooler than the target temperature for the incoming hatchery air a control computer diverts the returning water to a water-to-air heat transfer chamber.

The incoming air is warmed and the water is cooled. The double impact is that the air is warmed from its outside temperature to potentially as warm as the hatchery needs it. Simultaneously the water is cooled down, possibly to the target temperature for the water exiting from the

chiller. That now chilled water is sent back to the chiller tank. In many cases the chiller simply doesn't run anymore. In all cases where the system is installed the load on the chillers is dramatically reduced. For those of you with chiller load problems, I can assure you this system is a far better investment than a larger or second chiller is!

The secondary heat recovery is an air to air removal of heat energy from the exhaust air. Originally it was only planned to recover this energy from the relatively clean setter air, but there is soooooo much heat in hatcher exhaust that we have been working on solutions for recovering that dirty heat as well. We are currently testing what we believe is that solution. Regardless of that test's outcome, the energy available in exhaust air in cooler climates is extremely valuable. We bring that air through a air-to-air plate heat exchanger to transfer the heat energy to the incoming air. Of course the two air streams are kept completely isolated from one another. Germs go out, fresh air comes in. Heat energy returns to the building by warming the incoming air.

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An interview with a panel of average Chick Master Single stage customers

How long have you been using Chick Master single stage equipment?

While there are some members of the panel who have been using this equipment and process for more than 25 years, they are primarily breeder companies. The broiler and layer users among us have been actively using the equipment for anywhere from a month to 10 years.

For the pioneers among you why did you decide to switch to single stage?

Sanitation. We were getting pressure from our customers to provide better traceability of the food chain to be sure, but mostly we were concerned with the hygiene in our hatcheries. There is almost no comparison of multistage and single stage processes where sanitation is concerned.

Have you seen any improvement in your hatch percentage?

Yes. Some of us were using the Chick Master rack system and saw about a ¾% overall hatch improvement. The rest were using some type of trolley system and there we saw about a one and one-half to two percent increase.

Did you notice anything in particular that explains this hatch increase?

Yes. We had a significant reduction in early deaths since the temperature in the single stage setter is much higher in the first few days. This impact was especially noticeable on our older flocks and on eggs that were more than eight days old.

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If Spare Parts are a puzzle to you...



visit our on-line shop at
www.chickmaster.com

and start earning points today.

An Interview with Average CM Single Stage users - continued

Can you clarify what you mean by “the impact on older flocks?”

Older flocks have larger eggs that do not incubate as well as the prime flock eggs. Also, the albumen quality is generally poor in addition to the embryo being somewhat weaker. Multistage conditions are not good for these embryos in the first few days. On flocks 50+ weeks old, we average between a two and a five percent improvement in hatch.

Why did you comment about eggs that are more than eight days old?

The albumen quality deteriorates on eggs with the passage of time due to the loss of carbon dioxide. Single stage allows us to enrich the atmosphere in the setter to compensate for this. You can't do this in multistage very well because older eggs don't particularly like high levels of CO₂. CO₂ injection, used properly, can easily improve an individual hatch by five percent.

Are there any other noticeable differences in the hatching process?

Pips that are not out virtually disappear. Red hocks disappear. The shell is so thin at hatch time due to the improved transfer of shell elements to the embryo that the shell is like paper. Birds get out with very little struggle. Thus the improved hatch and the significantly better appearance of the bird.

To be continued. Watch this space! 📺

SPIKING BROILER BREEDER FLOCKS AFTER 45 WEEKS OF AGE - continued from page 1

the hen long enough for proper insemination.

- Overfeeding breeder hens increases abdominal fat pad deposition which in turn reduces hen fertility.

- Excessive body weight of either males or females increases mortality. This causes a loss of egg production in the case of the female. In the case of males a higher mortality rate increases the number of females that need to be serviced per male. Weekly mortality rates should not exceed 0.35 of the flock.

- Successful body weight control of females will usually result in hens that average 3,600 to 3,800 grams at the end of lay at 65 weeks old. Males should weigh no more than an average of 5 kilos when the flock is discarded.

- Bell type drinkers, chain and trough type feeders have given way to high speed pan type feeders and nipple drinkers in most of the industry in most countries.

Spiking the breeder flock with young, fresh males to keep fertility at an adequate level.

- Usually, when flocks reach 45 weeks of age and there are some signs that fertility may be on its way

down, a 2 to 2.5% addition of young roosters 28 to 30 weeks old to the flock may be in order to sustain fertility at an acceptable level until the flock is discarded at 65 weeks of age.

- One must always be on the look to identify and eliminate sick, lame or crippled males that have gone out of condition and are not mating. A minimum of 6.5 to 7 active, healthy males will keep flock fertility in check.

- Adding new males causes the old roosters in the flock to increase their mating activity for up to 5 to 6 weeks after spiking the flock.

- The new males will exhibit a high mating frequency but a low rate of successful mating for the first couple of weeks after spiking.

- Inter-spiking is another way to improve flock fertility when young males are not available. Basically, inter-spiking consists of moving existing males from one house in a farm to another house within the same farm.

- As a result of inter-spiking flock fertility will increase rather quickly as there is no acclimation period needed for the males. However, fertility will start declining again after 6 to 8 weeks after the inter-spiking took place. Some integrators will inter-spike several times throughout the life of the flock.

Adequate fertility is a must for achieving good hatchability in our operations. Today's broiler strains have been genetically selected to exhibit excellent efficiency to convert feed into body mass. Thus, in order to sustain flock fertility at an adequate level throughout the life of the flock, one must continuously engage in top level husbandry that involves: 1) Frequent and accurate weighing of males and females on a weekly basis. 2) Constant monitoring of male to female ratios and mating activity. 3) Permanent culling of sick and/or lame males or females and monitoring the general health and nutritional status of the birds 📺

REFERENCES:

Factors that Influence Broiler Breeder Flock Fertility.
By: Jeanna L. Wilson. The University of Georgia, Athens,
GA 30502.



BWE-BRÜTEREI WESER-EMS
GmbH & Co. Kommanditgesellschaft

Chick Master

congratulates the Wesjohann family
on the Grand Opening of the largest and most
impressive hatchery in the world at Rechterfeld, Germany
on September 5th, 2007.



David Marsh

Ask the Eggsperts



Angel Salazar

Your chance to ask our hatchery and embryology experts the questions.

Q I am looking to employ a hatchery manager can you give me some recommendations?

Mr A. Kurzak - Turkey

A This can be difficult, since there usually are not that many experienced people in the market place. Top quality chicks can only be consistently produced with staff that are well trained from the top down. We see best results from what we call a "working manager", one who will get involved in the day to day running of the hatchery and is an integral part of the team. Quite often we find that hatcheries already have someone in their organization that can 'step-up' to the task often either on your farms or in the hatchery. The advantage is that all are involved in livestock production. Over the years I have seen several excellent farm staff move through the ranks to make very good hatchery managers even though they did not originally have any direct hatchery experience. If you do have to look outside of your present hatchery and farms team it is essential that there is someone in overall charge at the hatchery.

Q How fast should I set eggs from a young flock?

Mr J. Davies - Wales

A Eggs from young flocks under 35 weeks of age should have a minimum of 3 days from the point of lay at the breeder farm until setting in the incubators. This should be done in order to allow sufficient degradation of albumen viscosity which will in turn allow proper gas exchange and embryo respiration during the incubation process.

More tales from the Ventilation Psychiatrist's office - continued

All computer controlled.

The payback on these systems is unbelievable. Yes, there is a significant capital investment, but the payback to you is one year or less. How do I know that? Well, if the conditions in your hatchery are conducive to use of this system Chick Master will install it at your place with your investment set equal to one-half of the projected one year energy savings. Then, for the next three to five years you will share your actual energy savings with Chick Master as equal partners. At the end of the first year your half of the energy savings will have paid for the up front investment. In each subsequent year your half of the savings is money in your pocket. The half you send to Chick Master is coming from money that you didn't spend on gas, oil and electricity!!

If you want to know if this system is for you, you need to need to talk to Cy or Ty. Maybe even one of the Chick Master sales guys. If you just want a quick indication, look up the average temperatures (day and night separately!) for your zip code. If the average temperature is under 75° F (24° C), the system will begin contributing. (At temperatures below 40° F (4.5° C), the typical hatchery will use all of the animal heat available so no additional savings are possible). If more than half of the averages are below 75° F (24° C), you have passed the first test on the road to becoming a candidate. Next, look at your energy bills. Take one-third of your electric bill and half of your heating bill (gas or oil) for the year and add them together. If the answer you get is higher than \$75,000, you have passed the second test and have become a full-fledged candidate.

You can contact me at HarriCane@chickmaster.com or you can send me your zip code and the yearly total of each of your utility bills and I'll do the calculations for you. Better yet, come to the CM Open House in Medina on October 17 and 18 and bring your numbers with you. The analysis is free and the advice is worth every penny! ☺

FUN TIME

How do you stop a rooster from crowing on Sunday?
Eat him on Saturday!

Why were the hens lying on their backs with their legs in the air?
Because eggs were going up.

What do you get if you cross a hen with a dog?
Pooched eggs.

Why did the chicken only go half way across the road?
She wanted to lay it on the line.

Why is it easy for chicks to talk?
Because talk is cheap.

Which day of the week do chickens hate most?
Fry-day.

Why did the chicken disappoint his mother?
He wasn't what he was cracked up to be.

Why did the rooster file for divorce?
He was tired of being hen-pecked.

Why did the rooster stay outside during the blizzard?
It was 'fowl' weather.

Why don't chickens like people?
Because we beat eggs.

DID YOU KNOW?

If you grew as fast as a chicken, you would weigh 349 pounds (158 Kgs) at age 2.