



## PMSI STAFF TACKLES CUSTOMER ENGINEERING CHALLENGES TO IMPROVE VENTILATION, AND BIRD COMFORT. - By Dan Henslee

PMSI, headquartered in Lowell, Michigan, produces and sells automation and controls for the egg layer industry throughout the United States.

Our company, which builds and markets seven different products, also supplies and services our automated control systems in over 250 layer and pullet sites across the United States.

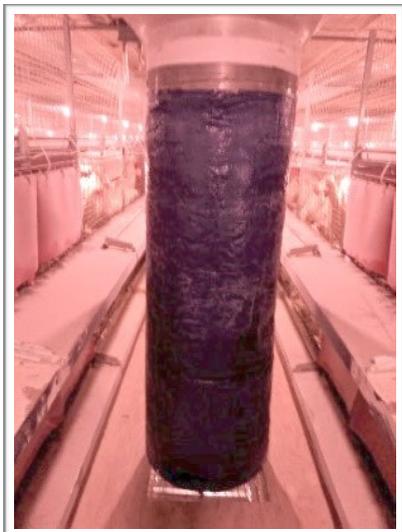
### **PMSI believes in putting customers firmly first**

Hegins Valley Farm in Hegins, Pennsylvania, was looking for a way to improve their ventilation design. During a PMSI system installation, it was discovered that the current ventilation design would benefit from some improvements. Conversations with the Hegins' staff evaluating the equipment, environment, and birds, led to possible solutions. While the changes needed were beyond the normal scope of a PMSI installation, our Service Manager, Sean Ryan, made the determination that, "Above all, we had to help the customer find a long term solution."

“ Deb Martz Complex Manager, Hegins, Pennsylvania - “We are very pleased with the air distribution, instead of the air dropping straight down, this new solution provides us with a nice spread, and we plan to move forward with this option in our other buildings. I also wanted to mention I appreciate Sean’s professionalism and courtesy”.

”

### **The decision to modify the house ventilation design**



*Intake chimney with mixing fans.  
Prototype by Sean Ryan*

Sean went to a local supply house and purchased readily available materials to make a rough prototype. Once installed and tested, everyone agreed it was a good solution. Plans for the final version were then determined and the process for having it manufactured locally were arranged.

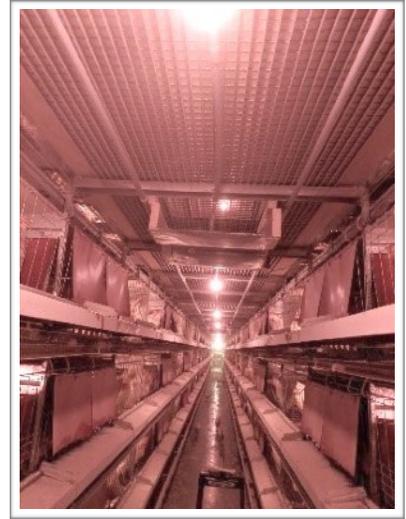
Hegins not only needed the right amount of incoming air, but also enough velocity to propel the incoming cold air across the ceiling, allowing it to mix with the warm inside air. This is critically important as it prevents cold air from falling onto the birds, and helps achieve and maintain uniform temperature throughout the house.

*Continued on next page*

**How the inlet and chimney work**

Chimney intake and mixing fans are one of many options for layer houses. The chimney inlet is designed to improve the airflow and will help to capture cool attic air. It draws fresh air from the attic and/or inlets, and directs it to the center aisle of the bottom level where it makes its way to the sidewall fans. The airflow is directed down the aisle like an inlet and not directly at the floor, allowing better temperature balance between the top and bottom levels, as well as improved air quality on the bottom level.

Poor inlet efficiency can cause temperature differences of 20-25 degrees. Good inlet management can help mitigate costs that result from poor ventilation, resulting in improved egg production.



*Inlet directs fresh air, thus air mixing*



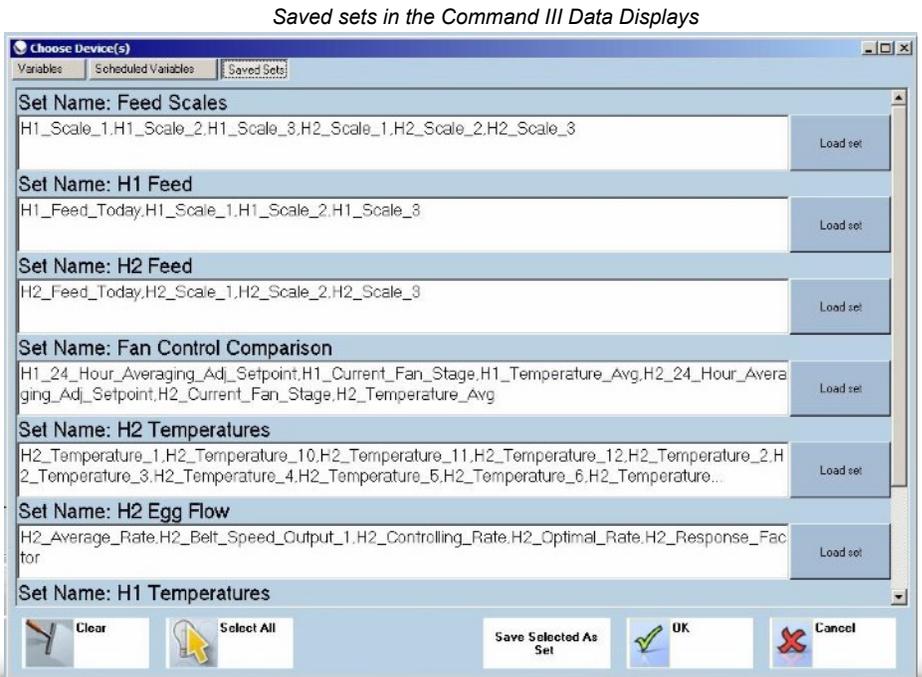
**TECH TIP - A simpler shortcut for environmental management**

Work faster and more efficiently by using the Command III shortcut below

The Command III has been a flexible control system from its beginning, and as such, allows adjustment of the data that is tracked and stored for later review. The ability to choose several data points to review together allows known related data to be reviewed as a whole, and new relationships to be discovered. For example, you are able to display *outside temperature data* alongside *zoned temperature averages* to see how colder temperatures affect a particular building.

**Sets added to Command III Historical Data Visualization**

As the systems have grown more complicated it's become apparent that simply allowing items to be selected wasn't enough; users were often selecting the same 5, 10, or even 20 items for display. To simplify the process of selecting related items for review we've added the ability to select and save a set of items for reuse in the future. These sets can be named and then easily restored when future review is warranted. Making data analysis out in the building almost as easy as it is back at the environmental or egg flow server.



**Jump to your predetermined set of sensors**

Do you often want to view all temperature data together? Save them as a set and load them in just three clicks. Save Average Temperature, Feed and Water Rates, and a few other commonly reviewed items into a single set to allow at-a-glance review anytime you are interested.

**EXTEND YOUR REACH**

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