



# Eat more Chicken

## Sophisticated Chicken House Control

**“Eat more Chicken” reminds us of the well-known slogan of one of America’s largest fast food chains on billboards throughout the US. Indeed, the US consumption of chicken has risen sharply.**

All we know for sure is that Agri Ventilation Systems, LLC located in Dayton, VA has been able to turn these market trends into a successful business. For many years now, Agri Ventilation has been specializing in ventilation controllers for poultry, livestock and green houses. The state-of-the-art AVS Computer Controllers manufactured by Agri Ventilation provide the user with complete control over temperature, humidity, static pressure, lights, and feed. “We feel that our chicken house control provides the user with a number of unique features that are unmatched by our competition. The Agri Ventilation AVS-500-TSP is a self-explanatory, easy-to-use and simple-to-access control that provides more history capability than comparable systems available on the market”, says Neil Beery, President of Agri Ventilation Systems, LLC.

The AVS-500-TSP which was developed in cooperation with B&R is a full featured ventilation control well suited for the poultry environment. The system features a B&R Power Panel 41 with integrated control and 5.7 inch QVGA black/white LC-Display with touch screen, providing easy to understand graphical screens for chicken house environmental control, light and feed control as well as flock management. Additionally, the PP41 features 10 numeric and 32 function keys as well as 10 digital inputs, 12 analog temperature inputs and 8 digital outputs. The system is expanded with additional I/Os including 8 digital inputs, 2 analog inputs, 40 digital outputs, and 2 analog outputs. Agri Ventilation also decided to have a customized unit developed for their company featuring their corporate design and a modified key layout.

### Robust and easy installation

Another factor that was very important to Agri Ventilation when developing this new chicken house control system was the ease of installation. “The Panel is well built and although it does cost a little bit more than competitive solutions, it offers the user with less headaches and costs during installation. The Panel has been designed in a way that allows installation time to be cut in half. Reduced installation costs and a system that is up and running in half the time are all benefits we are happy to pass on to the user”, explains Mr. Beery.

In general the Agri Ventilation system which is available in a wide variety of configurations provides the following processes: the environmental control includes heat control, ventilation with use of sidewall, tunnel and stir fans, evaporative cooling, humidity, atmospheric pressure, temperature, natural ventilation, lighting, feed, and water control for the entire chicken house. One of the most critical processes when controlling chicken houses is the climate control. Failure in this operation can cause the loss of a complete flock of chickens resulting in considerable financial damage. The AVS-500-TSP has been programmed in a way to ensure that the worst case scenario of losing a flock of chickens does not occur by providing an advanced alarm system which is activated in case of a problem. In some alarm conditions the control will make adjustments to the ventilation to maintain a good air flow until someone can respond and correct the problem. However, in the unlikely event of a failure the control is backed up by fail-safe relays to turn on fans and open the vents and tunnel curtain without thermostats. It is also set up with connections for mechanical backup thermostats and clock control as another safety feature. Additionally, the controller unit can monitor and record history data to provide the grower with important information regarding the development of his flock. The history functions will record temperature, water, feed and activity of most outputs including Brooder/Heater, Fans, etc. Record intervals are user adjustable from 1 to 60 minutes. This information can also be displayed in graphical form.



These chicken houses are already automated efficiently and economically using Agri Ventilation control systems.

### Operation: on-site or remote

Another feature besides the user friendliness of the AVS-500-TSP is the remote monitoring. One can connect up to ten chicken houses and monitor them from remote locations. The data from the individual houses is transferred via CAN bus ensuring easy maintenance and access to information at all times. “Users can use the PC System in their living rooms or in a remote office to dial up to the chicken house control, make adjustments and simply monitor their poultry operation remotely. Of course this does not mean that you do not have to check your chicken houses on a daily basis in person. The control is a very valuable tool to help you do a much more consistent job but it does not replace the farmer taking care of its poultry operation”, adds Mr. Beery.

Control solutions have changed dramatically over the last decade. When Agri Ventilation started looking for a control system 15 years ago, controllers were still new to the industry and there were not that many products on the market that could provide the functionality Agri

Ventilation was looking for. “15 years ago our company was building electro mechanical devices but we wanted to be a step ahead of the competition. This is when we first got in touch with B&R and started to use their Minicontrol solution. When B&R introduced the Power Panel 41 to the market we were impressed with the features, and as it offered our company a competitive advantage we decided to switch to this new control solution. B&R controls have proven to be a very reliable solution over many years now”, explains Mr. Beery about his long-lasting relationship with B&R. 

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Neil Beery  
President  
Agri Ventilation