BROILER TIP...

SOFTWARE AVAILABLE FOR EVALUATING
POULTRY HOUSE VENTILATION

Recently a Microsoft Excel spreadsheet was developed to make it easier for poultry companies and growers to evaluate important factors required for tunnel-ventilated poultry houses. The new software includes calculations of how many fans a poultry house should have, compares exhaust fans, determines how much pad a house should have and compares the cooling produced by the different evaporative cooling options available under different weather conditions. This useful spreadsheet is now available on the Internet or can be provided to anyone interested on a 3.5” diskette (see the end of this article for more information on how to access this spreadsheet).

In the first section of the spreadsheet the user keys in information about the house, electricity rate, and projected yearly operating hours (3,500 hours per fan is fairly typical of a house where power ventilation is used year round). From this information the spreadsheet calculates the required fan capacity.

In the second section of the spreadsheet, the user inputs performance information about the fans they would like to compare (cfm of the fans at a static pressure of 0.05" and 0.20", as well as the energy efficiency of the fans at a static pressure of 0.05”). The spreadsheet calculates the number of fans required, yearly power cost, air speed, and air flow ratio for each type of fan the grower has provided information. The spreadsheet also gives each of the fans a performance rating (Tunnel Ventilation Fan Performance Rating, Poultry Housing Tips, April 1999). If the producer feels the air speed is too low, he or she can go back to section one and override the required fan capacity and the spreadsheet will increase the number of fans accordingly.

In the third section, the spreadsheet calculates the amount of 2”, 4”, and 6” pad the house should have for each type of fan for which information has been provided.

In the final section the user can input a combination of outside air temperature and relative humidity.
and the spreadsheet will calculate the temperature and relative humidity of the air as it enters the house as well as hourly water usage of the system under these weather conditions.

The spreadsheet as well as other ventilation newsletters, photographs and videos can be found at www.poultryventilation.com. If you do not have access to the Internet, the spreadsheet is also available on disk. Contact Michael Czarick at 706/542-9041, Fax 706/542-1887, or e-mail at mczarick@bae.uga.edu.

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**Consult with your poultry company representative before making management changes.**

“Your local County Extension is a source of more information on this subject”