



The University of Georgia Cooperative Extension Service

College of Agricultural and Environmental Sciences / Athens, Georgia 30602-4356



Do Curtain Machines
Save You Money???

March 1990

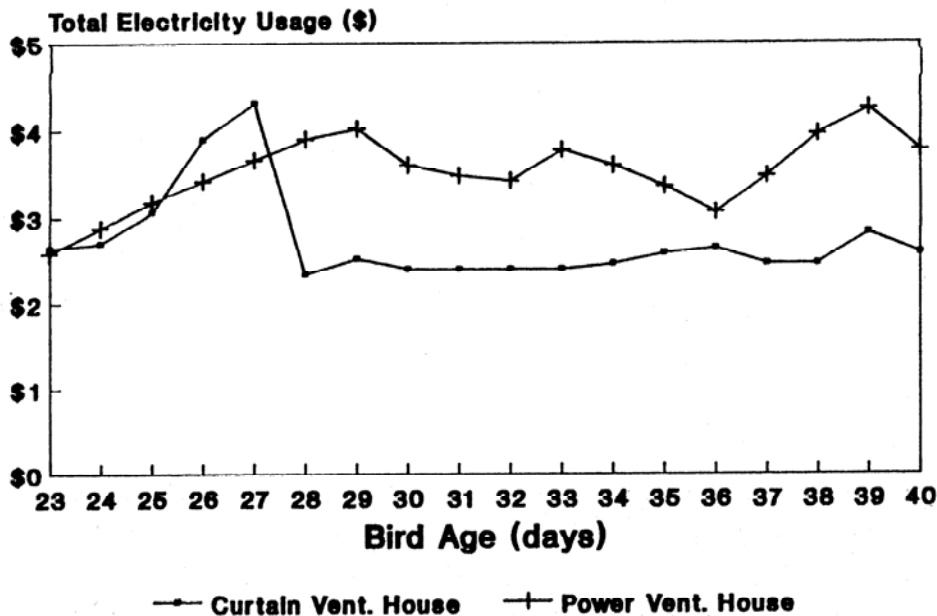
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With all the fans, feed motors, forced air heaters and lights in today's poultry houses, electricity bills can become a substantial drain on a producer's income. Since it is one of the few costs over which a producer has control, a good deal of attention is often given to minimizing electricity usage.

One area which stands out in terms of electricity usage is power ventilation. Watching exhaust fans run 24 hours a day, seven days a week, leads to thoughts of large electricity bills and low profit margins. In an effort to decrease costs, a number of producers will use their curtain machine to control house temperature instead of using their exhaust fans.

But are producers really saving money by using a curtain machine? On a commercial broiler farm, this question is being examined by Extension Engineers and Poultry Scientists. Two curtain-sided broiler houses are being power-ventilated while another is using a curtain machine to regulate house temperature. Environmental temperature and electricity usage are being constantly monitored.

Curtain Machine vs. Power Ventilation



(both houses power vent. until 28 days)

PUTTING KNOWLEDGE TO WORK

The University of Georgia and Ft. Valley State College, the U.S. Department of Agriculture and counties of the state cooperating.
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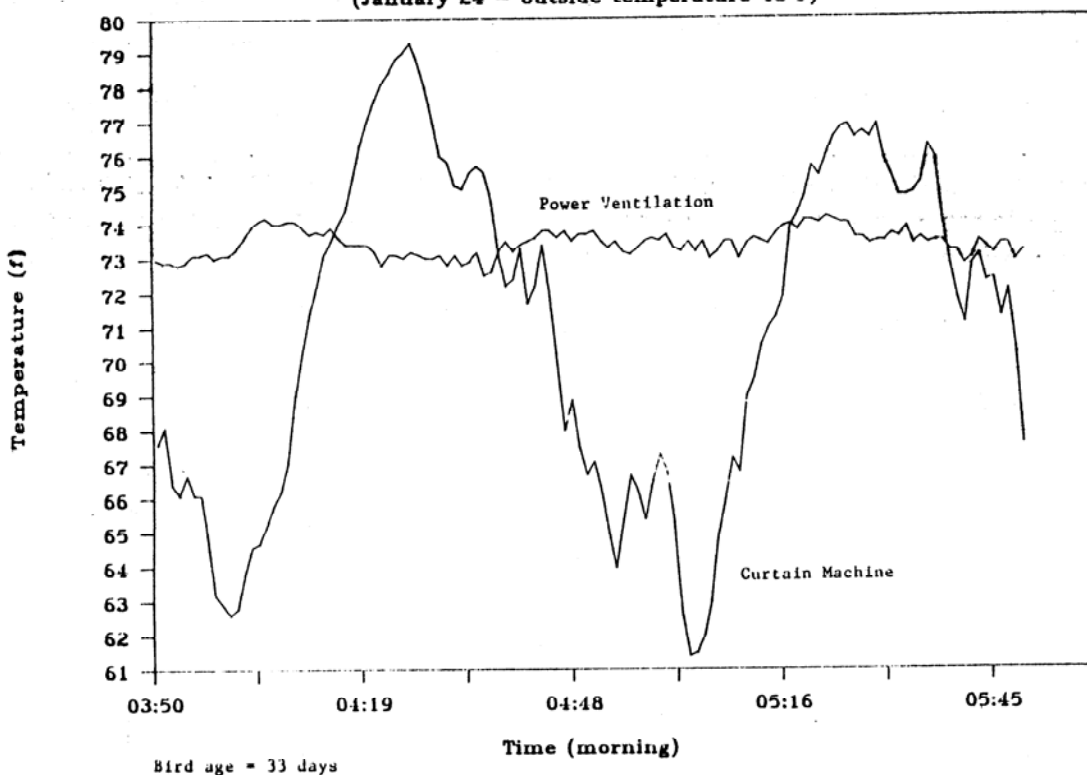
Up until the birds were 27 days of age all three broiler houses were power-ventilated. At 28 days, the curtain machine was used for ventilation in one of the houses and the exhaust fans were turned off. Anywhere from two to six, 36" exhaust fans ran in the two power-ventilated houses.

On average, the power-ventilated houses used only 80 cents more electricity a day. The reason for the minimal difference in electricity usage is that it doesn't cost as much as you might think to run a 36" exhaust fan. In fact, it costs less than 5 cents an hour.

The big difference between the houses was the environment. The use of the curtain machine led to large swings in house temperature. It would be too hot one moment and too cold the next. Air quality also suffered. Humidity and ammonia levels varied dramatically. These variations in house temperature and air quality can lead to a decrease in performance and an increase in the bird's susceptibility to disease.

Curtain Machine vs. Power Ventilation

(January 24 - outside temperature 48 F)



This is not to say that curtain machines should never be used to ventilate a broiler house. If outside conditions are close to desired inside conditions, then curtain machines can be used to maintain that environment quite effectively. But if there is a substantial difference between the outside and desired inside temperature, power ventilation should be used. The slightly greater electricity costs will very likely be offset by an increase in performance.