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(Success Story)

AIR CONDITIONING IN FARROWING HOUSES

L. Bynum Driggers

The need for relief from heat stress on sows in the farrowing house becomes more apparent as swine operations intensify in order to maximize the use of labor, facilities, and equipment. Sows are primarily dependent upon evaporation of moisture from the respiratory system as the body temperature regulator at high temperature.

With these two thoughts in mind, a study was initiated with a commercial producer to obtain substantiating data on air conditioning as a zone coolant in farrowing houses. No attempt was made to cool the entire house but only envelope the sow in a cool stream of conditioned air.

The results were very encouraging. When the outside temperature soared to 96° F., 80° F. conditioned air was enveloping the sows. As a result, they seemed to be very comfortable, showing no signs of heat stress as might be exemplified by nervousness and panting. Feed consumption remained steady with a daily intake of 12 to 14 pounds by each sow.

The cost of this zone cooling system was $75.00 per sow stall. Taking into account the economics, the annual cost figured to be $12.26. Since each sow stall can be used twelve times each year, each sow and litter's share of the annual cost is $1.02. Operating cost ran about 5¢ per day per sow and litter.

Why did this producer become interested? It was because he had lost several sows farrowing when the temperature was in the nineties. He figured his loss above $400 per sow. Our own economists say the loss would easily run $250 to $300 per sow. Therefore one can readily see the benefit here as well as the others mentioned above.

As a result of this work, producers from neighboring states have visited North Carolina State University to discuss a system applicable for them. Also a major building complex (in excess of $50,000) is being developed for the Upper Coastal Plains Research Station with zone cooling not only in the farrowing house but in the breeding barn also. It is felt that this will have considerable effect in breeding.