The extreme daily temperatures observed between the treatments were not different (between 17° and 28° in summer and between 12° and 19° in winter), neither the growth rates of the fattening pigs (600 g/d before 60 kg and 650 g/d after). During early fattening (the first eight weeks) the statical system seems to be better, while air conditioning by overpressure is not recommended in winter without supplementary heating. On the other hand, beyond 60 kg live weight the overpressure system gives better results especially in warm periods.

Because of the flow rates of the fans used in dynamic air conditioning, it is more advisable to recycle part of indoor air in order to reduce the fresh air flow especially in winter when the building is not heated.

Air conditioning in fattening pig houses : effects of air flow and air velocity

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Over a period of two years, we measured the performance of growing finishing pigs subjected to various combinations of four distinct ventilation parameters : flow rate, air velocity, volume per animal and indoor air temperature. The experiments took place in the winter and the summer. They allowed to draw the following conclusions :

A too high summer flow rate, a low volume per animal, an over-ventilation in the winter without heating, a low volume per animal corrected by a high air flow rate led to lower pig performance. A high volume per animal in connection with a low summer air-flow rate, high air velocities correctly associated with indoor air temperature whatever the flow rate improved the performance. Winter heating did not satisfactorily improve the pig fattening performance which was however maintained by a correct minimum flow rate (removal of latent heat) without any heating. Under ventilation during the winter to preserve the heat emitted by the animals did not bring any advantage and was harmful to the longevity of the building.

Influence of whey consumption on the pollutional load of pig manure

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Whey is often used in bacon pig feeding for economic reasons. However, this leads to a manure very different from that of an animal fed a diet based on cereals.

Intake of a large volume of liquid by the animal results in a dilution of the manure. About 70 p. 100 of the volume of liquid (water or whey) ingested are eliminated in the form of urine.