

# REDUCE YOUR ENERGY CONSUMPTION -VENTILATION-



Regarding climate change, reducing our energy consumption is a key issue. This sheet presents some simple actions for different types of animal husbandry.

## Optimize the heating-ventilation combination

**Target audience**

livestock farms

Livestock buildings represent a major source of energy consumption (heating and ventilation).

**Investment**

0€

Ventilation can cause 70 to 80% of heat loss in buildings (ADEME). Its management must therefore be done in close relation with heating.

**Implementation**

Practices

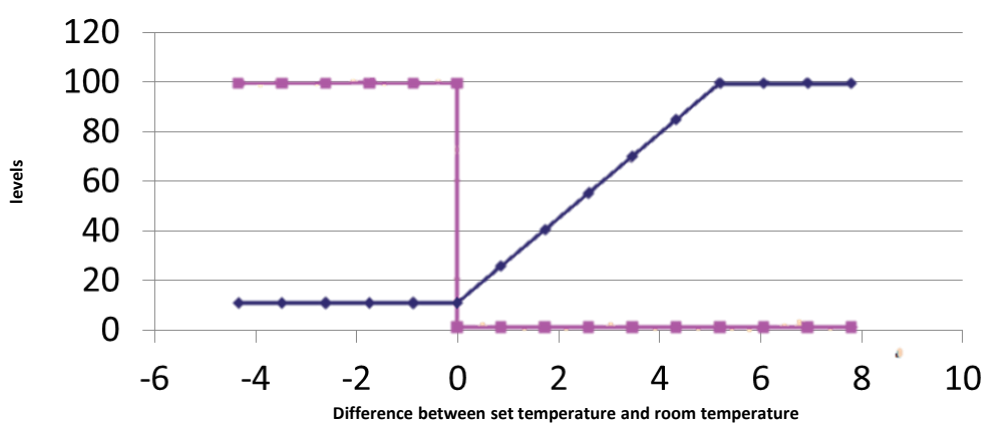


### Example: Impact on consumption

In pig farming: heating set point in the post-weaning room (PS) at 0.5°C higher than that of the ventilation.

Impact: - 21%

◆ Heating: heating setpoint temperature = ventilation setpoint temperature  
 ■ Ventilation, minimum level: 10%, range: 6°C



Avoid heating when the fan is accelerating. Centralize the control functions of the heating and ventilation: the set temperature of the heating must be the same as the ventilation.



▲ Illustration of the combination of heating and ventilation operation for a regulated heating (source: Atout porc Bretagne)

## Ventilate the milk room

### Target audience

Élevages bovin lait

### Investment

0 - 1500€

### Implementation

Aménagement

### Impact on consumption

Depending on the typology of the farm

- 0,3 à - 0,7%

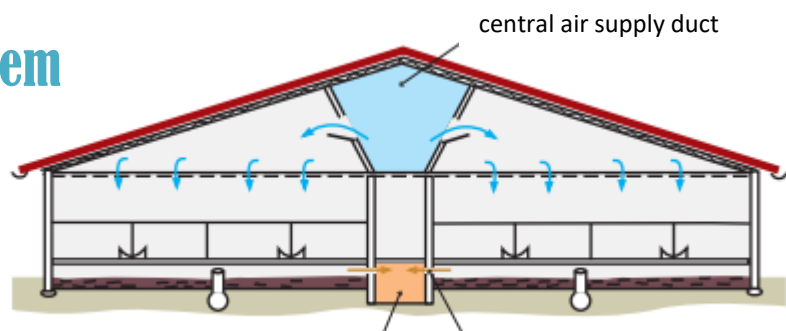
The power consumption of the milk cooling tank is dependent on the air temperature at the condenser inlet.

Install the milk house, the tank and the cooling unit and have an ambient temperature of 10°C.



## Optimize the ventilation system

Centralized ventilation is a solution to reduce energy needs thanks to less consuming turbines.



extraction duct under central corridor

air outlet by motorized trap door

Room-by-room economical ventilation can save up to 90% of the initial requirements, in particular by optimizing the aerodynamics of the fans.

<i>kWh consumed per seat</i>	Classic room-to-room ventilation	Centralized ventilation (-60%)	Economical Ventilation (-85%)
Gestating	144	57,6	21,6
Maternity	90	36	13,5
Fattening	36	14,4	5,4
Post-weaning	12,75	5,10	1,91

▲ Energy consumption related to ventilation in pig farms (source: IFIP)