

Microclimatic effect of hedgerows n°1

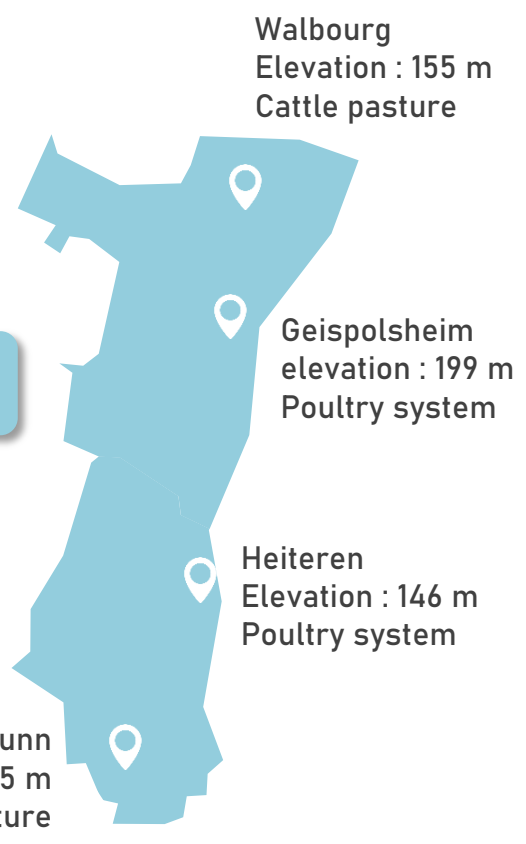
In the face of climate change, agroforestry and the presence of hedgerows are considered an effective way for managing the heat stress of outdoor animals through their microclimatic effect.

Temperature monitoring in agroforestry plots has made it possible to quantify this microclimatic effect.

The aim was to get an approach from the animal point of view: in full sun areas or the areas near the hedge .

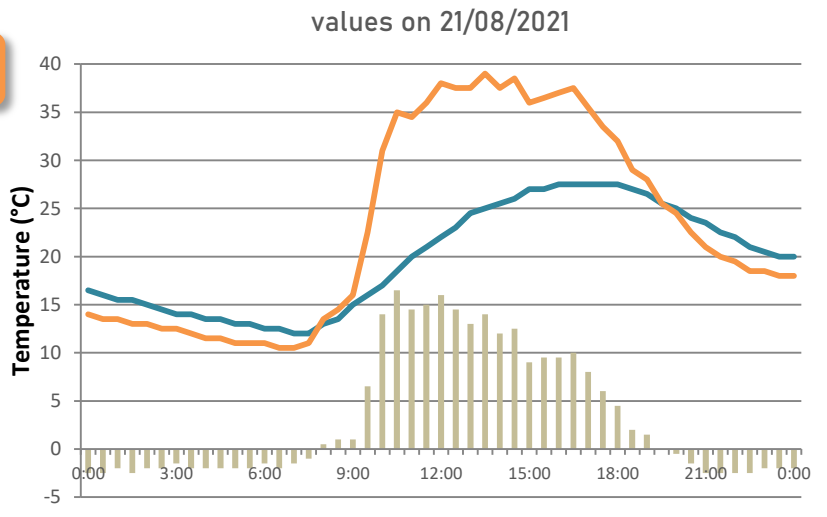
The hedgerow moderates temperatures : warmer at night, cooler during the day.

temperature monitoring :
from 14/08/2021
to 09/09/2021



Cattle pasture in Heimsbrunn

Hedgerow	Open field
Max. 30,5 °C	42,5 °C
Min. 9,5 °C	7,5 °C
Mean difference	7,4 °C
Over the 28 days, between 10am and 4pm	
Max. difference	16,5 °C
Over the 28 days	



Free-range poultry system in Geispolsheim

Hedgerow

Max. **31,0 °C**

Min. **10,5 °C**

Mean difference

Over the 28 days, between 10am and 4pm

Max. difference

Over the 28 days

Open field

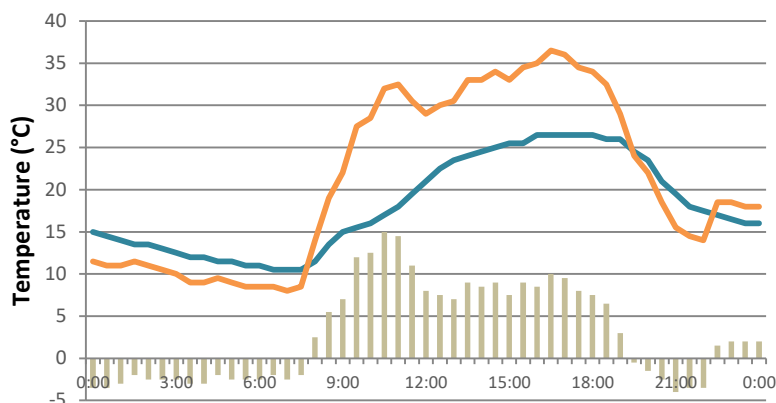
Max. **44,0 °C**

Min. **7,5 °C**

6,0 °C

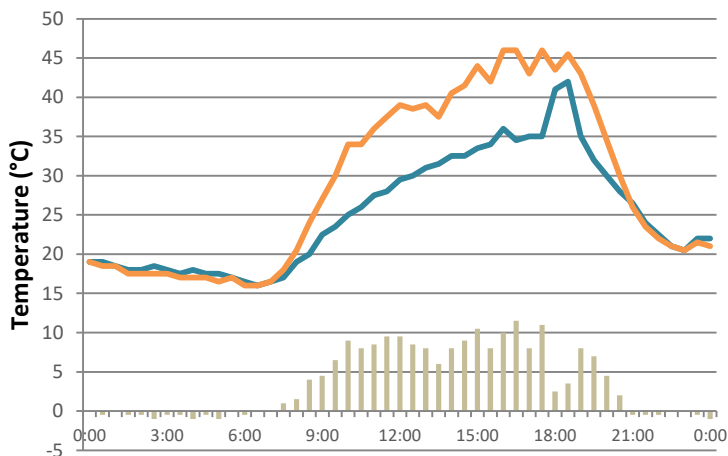
15,0 °C

values on 03/09/2021



Free-range poultry system in Heiteren

values on 14/08/2021



Hedgerow

Max. **42,0 °C**

Min. **8,5 °C**

Mean difference

Over the 28 days, between 10am and 4pm

Max. difference

Over the 28 days

Open field

Max. **46,0 °C**

Min. **8,0 °C**

4,5 °C

11,5 °C

Cattle pasture in Walbourg

Hedgerow

Max. **29,0 °C**

Min. **7,5 °C**

Mean difference

Over the 28 days, between 10am and 4pm

Max. difference

Over the 28 days

Openfield

Max. **44,0 °C**

Min. **5,5 °C**

6,2 °C

17,0 °C

values on 03/09/2021

