

# Carcase cooling

## field trial summary

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### Key messages

Fewer pick-ups may be required which would reduce the biosecurity risk

The coolers maintain a stable temperature (largely between 2 and 7°C) even when outside temperatures exceed 30°C

The running cost (in terms of electricity consumption) is approximately 80 pence per day during warmer months and less during cooler periods

Anecdotally, the coolers reduced odour and flies around the dead stock bin

Staff and fallen stock collectors think they are a good idea and that they make the job of handling fallen stock less unpleasant.



Figure 1. Carcass cooling container

### Background

In other countries, carcass cooling containers have led to a reduced number of visits by fallen stock collectors, decreasing the potential risk to biosecurity of them visiting the unit.

### Aims

To evaluate the operation and performance of cooling containers for the on-farm storage of fallen stock on pig farms in England.

### The trial

Two carcass cooling containers (see Figure 1 above) were placed on two separate farms. Data loggers were placed inside and outside the coolers to monitor internal and ambient temperatures. Power consumption was also monitored for each cooler.

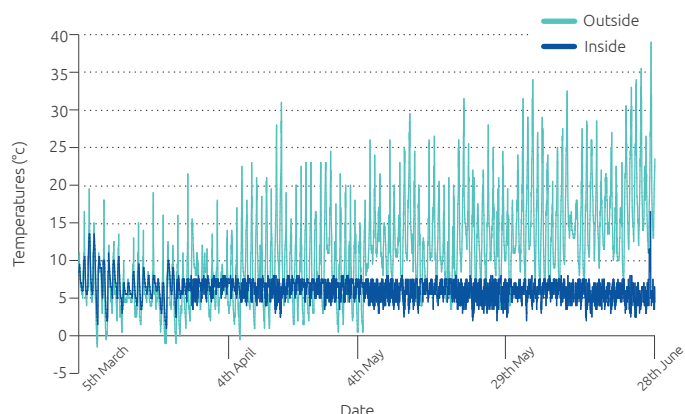
### Results

The temperature inside the carcass coolers was significantly lower than the ambient temperature (even during periods of ambient temperatures in excess of 30°C). Figures 2 and 3 (overleaf) show the temperature data from the ambient and internal loggers from each farm.

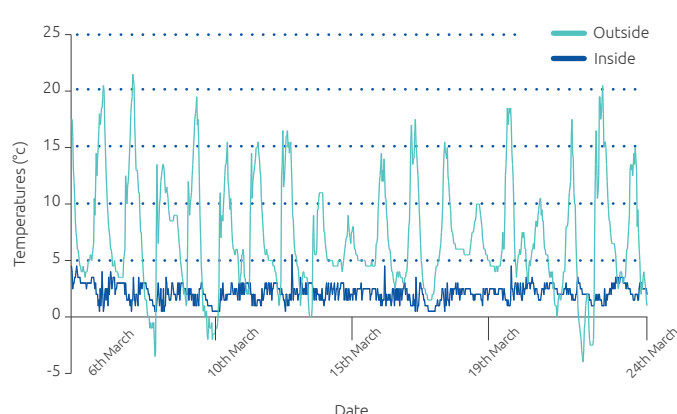
Power usage was in the region of 500kWh per quarter (approximately 80 pence per day)

Figures 2 and 3 (overleaf) show the benefit in winter and summer

**Figure 2. Graph showing internal and external temperature over time for carcass cooler on Farm 1 (2015 data)**



**Figure 3. Graph showing internal and external temperature over time for carcass cooler on Farm 2 (2015 data)**



## On-farm feedback

“The container is very easy to use, has reduced odour and the number of flies on that side of the farm”

“Don’t take it away, if it costs **80 pence** per day to run, it’s worth it”

“We think the cooling container is fantastic. As far as creating the best possible environment for the village, then it is a winner because the smell is virtually nothing and it looks neat, tidy and professional.”

“An absolutely marvellous idea, there was no smell and there were no flies, let’s hope everyone gets one!”

## Conclusions

In Denmark, where the usage of these containers has been widely adopted, a reduction in the fallen stock collectors’ fee of around **15%** has been seen. This is due to a reduced number of collections and an improvement in the quality/quantity of the renderable product available from the chilled carcasses.

While adoption of such a system in the UK would be more complex to achieve, it does highlight an opportunity for collaboration within the supply chain which could lead to reduced on-farm costs, increased biosecurity and the improved utilisation of ‘waste’.

## Further information

Feasibility study on the desirability of the UK pig industry adopting carcass cooling as an on-farm method for the storage of fallen pigs prior to disposal (2016)

[pork.ahdb.org.uk/media/2702/carcass\\_cooling\\_-\\_final\\_report.pdf](http://pork.ahdb.org.uk/media/2702/carcass_cooling_-_final_report.pdf)

Carcass cooling web page

[pork.ahdb.org.uk/environment-buildings/fallen-stock/carcass-cooling/](http://pork.ahdb.org.uk/environment-buildings/fallen-stock/carcass-cooling/)

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