



Detecting Campylobacter with AeroCollect® - simple testing, quick results and earlier detection

- **Simple sampling** - an air sample with AeroCollect® is simpler and considerably less time consuming compared to boot swabs.
- **Quick test results** - the air sample from AeroCollect® can be processed within as little as 1-2 hours in a lab compared to traditional testing which can take days.
- **Detect Campylobacter earlier** - AeroCollect® has an increased sensitivity to Campylobacter and detects it earlier minimizing the risk of Campylobacter-positive broilers going to a Campylobacter-negative processing line.
- **Measure the intensity quickly** - AeroCollect® enables an up-to-date overview of the development of an outbreak, which makes it possible to accurately evaluate the need for action/treatment.
- **Improved traceability** - with an air sample it is possible to collect samples in areas with no animals in order to trace an outbreak or decide its origin.

Cohen's
kappa value
= 0.87

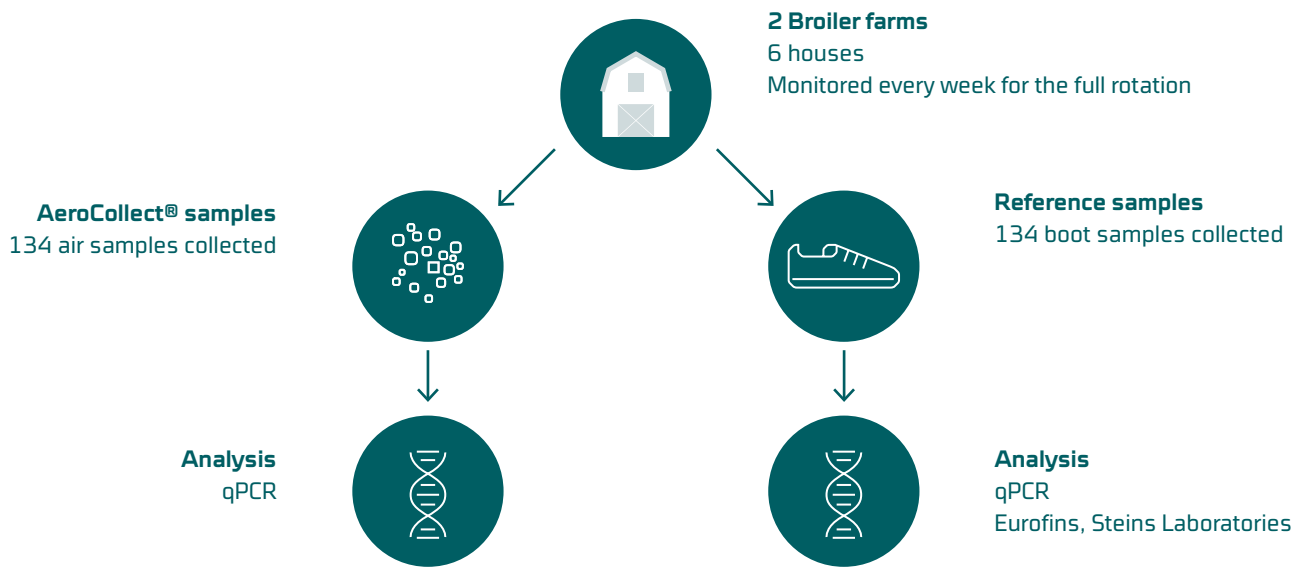
Detection of Campylobacter with AeroCollect® compared to traditional testing

FORCE Technology has conducted a validation study in accordance with the guidelines for validating microbiological alternative methods against reference methods as described in the harmonized Standard by NordVal. This ensures that the validation study follows the guidelines described in EN ISO 16140-02:2016. The study was carried out as a blinded study at two broiler farms. A total of 134 tests were collected with AeroCollect®. 87 percent of those had an identical result compared to 134 boot samples collected according to the current standard in the study. The rate of agreement between the two test methods constitutes a "good agreement" according to the ISO-standard.

Furthermore, the validation study establishes that the sensitivity of AeroCollect® is higher than boot samples. This means that AeroCollect® detects Campylobacter earlier - up to 5 days before a boot sample.

Total number of samples		134
Positive agreement:	PA	68
Negative Agreement	NA	59
False Positive	FP	0
False Negative	FN	3
True Positive	TP	6

Accredited by



The process from sample collection to result



When should testing with AeroCollect® take place?

AeroCollect® allows for frequent testing and quick results providing better monitoring of Campylobacter in herds. This provides the best basis for improved production management throughout the rotation - e.g. testing early in a rotation provides insight in the effectiveness of the cleaning of the houses between rotations.

Testing after detection provides monitoring of the development of the outbreak and a basis for decisions concerning treatment. By testing in broilers near the day of slaughter the risk of undiscovered Campylobacter is minimized, and the profitability of the processing line is increased.

Comparison study

Blinded comparison study between AeroCollect® samples and traditional boot swab samples. The study was conducted in two different sheds with traditional broilers. The broilers were naturally infected with campylobacter.

In the diagrams results from both AeroCollect® samples (analysed using two different qPCR assay) and traditional boot swab samples from the two sheds are shown. The samples were collected every other day.

In the study the AeroCollect® technology was able to detect the emerging infection minimum two days prior to the traditional boot swabs.



Would you like to learn more about what AeroCollect® can do for you and your company?

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