

# **Fresh breathing**

- ♦ Has a positive influence on the consequences of heat stress
- Stimulates dissolving of (superfluous) mucus
- ♦ Assists the reduction of mucus as a result of vaccination reaction
- Enlightening effect on breathing
- Menthol has a cooling effect on the animal







Healthy Animals, Healthy Farm

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### What is Aeroforte<sup>®</sup>?

Aeroforte<sup>®</sup> is a natural product based on two essential oils, eucalyptus and peppermint and the active compound menthol which is derived from the peppermintplant. These active ingredients are combined into a water dissolvable solution which can be applied in drinking water or by spray application.

### Mode of action

Aeroforte<sup>®</sup> is a natural product based on the essential oils eucalyptus and peppermint. The most widely known effects of essential oils are their antimicrobial properties and antioxidant activity.

### When to use?

- During too hot stable climate
- For freer breathing
- Enlightening after vaccination

## Effects of eucalyptus and menthol

The main active ingredient of eucalyptus oil (1,8-Cineol) and the essential oil from peppermintplant (menthol) have been used as a complementary medicine since decades. The central implication is providing breathing alleviation during respiratory infections. Both essential oils have extended prove of their antimicrobial activity. During a respiratory infection airways become inflamed which lead to an increased mucus secretion. This mucus can mechanically interfere with the respiration and causes respiratory distress.

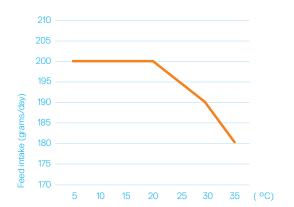
#### Heat stress

When temperatures in poultry houses rise, there is a decrease in feed intake, protein digestion and fertility and an increase in metabolic disorders. It's also known that heat stress increases the antimicrobial resistance of E.Coli, resulting in E.Coli problems. All these effects of heat stress together make sure that desired technical results cannot be reached. Figure 1 shows the relation between feed intake and temperature for broilers at 42 days of life.

The effects of 1,8-Cineol, besides its anti-microbial action, is based on reducing this mucus in the airways. This effect is achieved through reducing the inflammation, by improving mucus clearance through acceleration of the ciliairy beat frequency. Finally the hyper secretion of mucus is reduced. Menthol is one of the most used products during a common cold because of its soothing effect on the throat and providing the sensation of an improved airflow.

When ambient temperatures rise above the thermo neutral zone, water intake increases and feed intake drops as shown in Figure 2. Providing supplements in the drinking water is an effective way to reach the animals when they need support. Furthermore menthol stimulates the oral mucosa sensory cold receptors, reducing the negative feeling of heat stress.





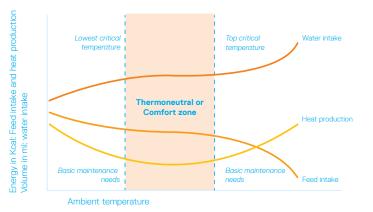


Figure 1: Feed intake per broiler related to house temperature (day 42 of life).

Figure 2: Feed and water intake related to ambient temperature.

## **Trial results**

On a broiler farm, the severity of reaction on vaccination was monitored. The results are reported in Table 1 below.

Average Weight & FCR	House A (Aeroforte®)	House B (Control)
Day 1	40 g	40 g
Day 7	124 g	122 g
Day 14	274 g	275 g
Day 21	480 g	460 g
Day 28	865 g	830 g
Day 35	1290 g	1220 g
Day 42	2150 g	2060 g
FCR	1.75	1.80

Table 1: Average bird weight (g) per week and feed conversion ratio (FCR) of broilers with and without administration of Aeroforte®.

## Conclusion

The Aeroforte<sup>®</sup> group had a minimized reaction on the vaccination compared to the control group. The Aeroforte<sup>®</sup> group had a better performance as their final weight was higher and feed conversion ratio was lower.





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## Dosage

#### Via the drinking system:

200 ml per 1000 litre drinking water, during 24 hours for 3 to 4 consecutive days.

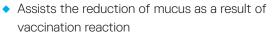
#### By spraying:

2% solution, with 2 to 4 spraying moments per 24 hours.

#### Via mist or fogging system:

2% solution, with 2 to 4 spraying moments per 24 hours.

The required amount of Aeroforte<sup>®</sup> can be mixed with lukewarm water up to 40  $^{\circ}$ C (or 104  $^{\circ}$ F).



• Menthol has a cooling effect on the animal



## Kanters Health Concept

Kanters provides total solutions to the farmer. To achieve this it is important that for all kinds of situations and health issues products are present that make a positive contribution to the recovery of animal health and improve the operating result. Therefore Kanters has an extensive range of liquid nutritional supplements via drinking water. Our products are divided into five functional groups. Within each functional group, the products may vary depending on the species, the type of animal, but also farm specific situation. Therefore, it is important that, before coming to an approach, to conduct a farm analysis first. For this analysis you can contact us.





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