

# The benefits of a healthy gut in profitable duck production

Keeping flocks healthy, productive and profitable through management of a healthy gut microflora should be a daily concern. More and more studies about intestinal health prove that the microbiota is crucial for all species, it is also true in human health. When you want to maximise your production, you need to keep a healthy gut.

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Moreover, to achieve this target, the microbiota is a new tool. Management, nutrition, vitamins and microelements in breeders, and sometimes additives, can help you. In this huge world of additives, pre- and probiotics have a specific target – to change the microbiota into a healthy one.

Several families of pre and probiotics exist on the market, one is live micro-organisms (bacterium alone or a mixture).

## Good bacteria

We sometimes speak of a 'new flora'. The idea is to provide good bacteria inside the feed, the water or on the eggshell/ducklings (at the hatchery level). These additives should decrease any health challenges and reduce the use of antibiotics.

This way is very efficient when birds are young, but less and less efficient with age. This is because when a duck is an adult, the gut is fully mature and to change this mature microbiota, you would need to provide the 'new flora' all the time.

If not, you will return to the previous flora in a short time (except if this new flora is coming from a 'duck bacteria strain', in this case, this flora could multiply alone by natural colonisation).

Probiotics will help the good bacteria (typically, *Lactobacillus* sp.) to develop more than the undesirable bacteria (*Clostridium* sp. or *Escherichia coli*). They can be useful, especially during tough periods, such as feed transition.

Managing soft feed transitions are always profitable, even with pellet feed. A huge



change in raw materials in terms of composition will imply a modification of the microbiota. Any disturbance of the microbiota could create an uncomfortable gut condition, so, the feed will be used with less efficiency.

A variation of 20% of corn is huge and it will definitely change the microbiota. This is the same with the composition of feed nutrients. A variation between two feeds of 150kcal is huge, and if there is a big change in the microbiota, the gut may be uncomfortable, and performance will suffer.

Soft transitions imply the use of more feeds and this could be difficult to manage, nevertheless, you will win in gut health and, as a consequence, in productivity.

In feed and/or water we want to limit the development of undesirable bacteria for many reasons – competition for nutrients, place on the gut wall, and less energy spent fighting against bad bacteria.

Nutrition is the basis to achieve a healthy gut. You must provide healthy feeds that are low in, or free from, mycotoxins, enterobacteriaceae or undesirable substances to ensure the best performance.

However, the amount of nutrients is important, because any imbalance could promote a dysbiosis. A dysbiosis is a digestive disorder due to, for example, an excess of protein, which could promote too much fermentation and a good environment for *Clostridium* sp. to develop.

A fashionable nutrient to increase gut health is insoluble fibre. This can improve gut health in several ways – more gut movement, a better digestibility of other nutrients, better faeces quality (less water inside) and less fermentation – all resulting in a healthier microbiota.

You should always regularly discuss this with your local nutritionist so you can adjust the formula according to your results.

In addition, many others additives can influence the microbiota, such as plant extracts and essential oils. Keep in mind that, like all additives, these will be affected by local conditions, so regularly check to see if they are working well or not for your farms.

## A good investment

Acids in feed or water are used all around the world and they are very helpful with regard to gut health. They control the population of enterobacteriaceae and fungi and, as a consequence, they reduce digestive challenges.

We are just at the beginning when it comes to gut health management. Nevertheless, it is clear that a healthy gut will allow you to increase your performance due to, for example, more eggs, less dirty eggs, less medication, and an improved FCR.

Gut health is not easy to measure, but it is always a good investment. ■