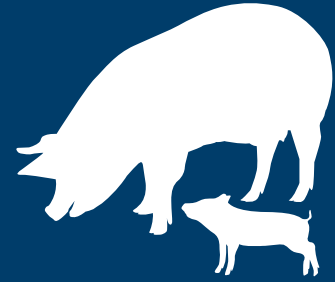


Urgent News

Pig Update 224 : 05/01/17



Trouw Nutrition GB Water Hygiene Programme

A key tool for optimising pig performance and gut health

Summary

- Water is the most essential nutrient, however water quality is highly variable on pig farms and this can significantly impact on health and performance.
- Implementing a water acidification strategy is an effective and flexible way of ensuring water hygiene is optimal thus having a positive impact on pig health and performance.
- Trouw Nutrition GB offer a comprehensive water hygiene customer service package, with both technical and engineering expertise at customer and farm level, to ensure the best solution is implemented for individual situations.

Background

Water is a vital nutrient for pigs. Approximately 55% of the body is made up of water, playing a role in temperature control, nutrient transport, as well as waste and digestive processes. Pigs will consume far more water than feed, at a typical ratio of 2:1. This ratio will alter as a result of environmental factors such as heat, stocking density, disease challenges and feed composition.

The importance of water quality

The quality of drinking water is often overlooked but because water is such a large proportion of daily intake, problems with water quality have the potential to cause major issues. Quality of water can be visibly assessed at farm level by considering the following key parameters:

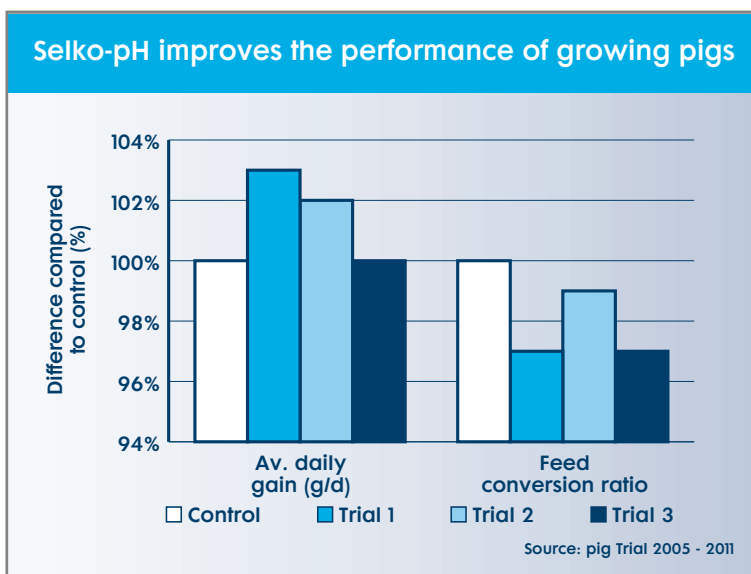
- 1. Colour** - water should be colourless. This can be visually assessed - any issues are often as a result of mineral imbalances. Certain colourations can indicate specific problems.
- 2. Transparency** - Cloudy or opaque water may indicate excessive growth of potentially harmful microbes. Biofilm can occur in drinker systems and can be recognised as large particles of organic matter. This can cause blockages of nipples and a build-up in the water lines themselves, often promoting the growth of potentially harmful bacteria.
- 3. Odour** - Bad odours could be indicative of the presence of microbes or excessive mineral levels.



The impact of pH

Lowering the pH of the water can reduce growth of microbes, which if ingested could have a negative impact on health and the digestive process. Bacteria such as E-coli and Salmonella cannot survive at a pH of lower than 4.5, therefore water acidification can help to manage water hygiene.

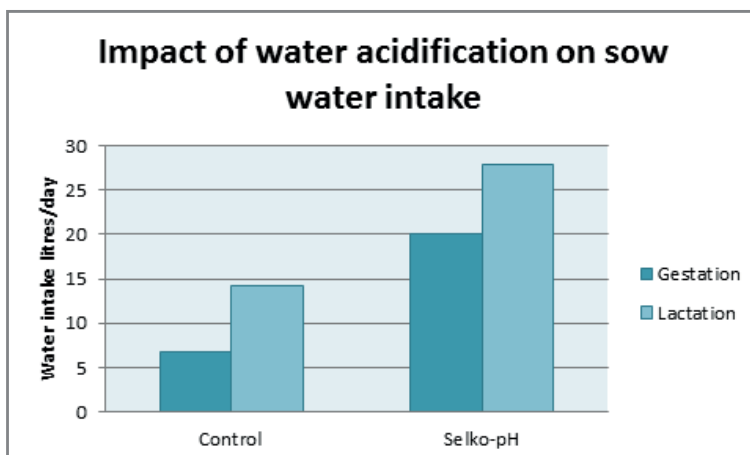
Lowering the pH of water can have a positive impact on the digestive process. A more acid environment aids protein digestion in the stomach, helping reduce any adverse fermentation further down the digestive tract which can result in scouring and pathogen growth.



Why undertake water treatment?

There are many advantages to acidification of water on pig units, particularly when used in conjunction with acidifiers in feed. Lowering pH supports gut health through improved nutrient digestion alongside optimising the environment to promote a balanced microbiota. Gut health is critical to long term health and performance of any animal and has a huge impact on cost of production. Nutritional strategies that support a healthy microbiota are a critical part of any pig production system.

Numerous studies have shown that the use of organic acids in the water can significantly improve growth and feed conversion in growing pigs from weaning. In addition, acidification of drinking water in the farrowing room has been demonstrated to improve sow water intake during lactation. Water intake can often be a limiting factor to optimal milk production in the sow, and can limit feed intake during lactation, thus methods to improve it are highly advantageous. In addition, the acidification benefits the sows digestive efficiency and improves the microbial balance in the gut, which can have a direct impact on the suckling litter who are exposed to any pathogens through faecal contact.





Three steps to support gut health – the mode of action of Selko pH

Selko pH is made up of a synergistic blend of free and buffered organic acids and has three main functions.

1. To reduce and stabilise the pH of the pigs drinking water.
2. To reduce the pH in the stomach
3. The buffered acid component of Selko pH provides activity in the small intestine, reducing the presence of undesirable enterobacteria whilst potentially leaving Lactobacillus unaffected.

Customer Service Package

Trouw Nutrition GB offer a bespoke water hygiene customer service package, providing ongoing support encompassing technical and nutritional advice, laboratory analysis and equipment supply and installation if required. This ensures customers implement water acidification in the most cost efficient manor to give optimal results.

The customer service package includes the following:

1. Initial water samples taken on farm are subject to analysis in our own specialist laboratories to establish the correct acid dose rate to achieve the optimal pH of 3.8. this dose rate can vary significantly from farm to farm depending on the water source.
2. A full mineral analysis is also undertaken in order to determine the water mineral quality. This allows for identification of any contaminants or excessive levels which could be detrimental to the palatability of the water and overall pig health, as well as causing issues in the water lines. Microbiological quality can also be determined, specifically analysing for the presence of yeasts, moulds and total enterobacteria.
3. Our in-house engineering expertise can offer farm site visits to advise on equipment, siting and set up and installation can also be carried out if required.
4. Finally, and most importantly, this is followed by ongoing technical and engineering support as required.

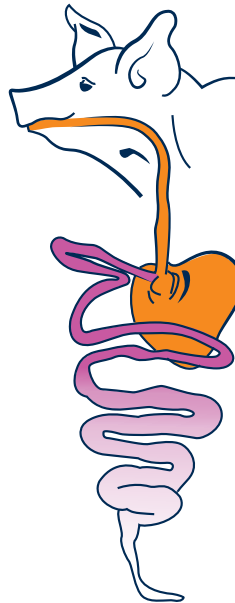
This customer service package ensures the successful use of Selko pH to optimise the return on investment on farm.

For further information please contact Lucy Brimble at Trouw Nutrition GB on 01335 341206, lucy.brimble@trouwnutrition.com



Step 1: water

- Synergistic blend of free organic acids
- Effectively reduces and stabilises drinking water pH



Step 2: stomach

- Synergistic blend of free organic acids
- Reduces the pH-value
 - Supports digestion

Step 3: small intestine

- Buffered organic acids
- Improves microbial balance
 - May leave Lactobacillus unaffected