

## How Devon pig farmer is saving £30,000/year by slashing antibiotics

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Devon-based pig producer Richard Knox has cut the farm's antibiotics bill by £30,000 a year after improving the water quality and changing the feed system.

Mr Knox, who runs Tor Pigs near Okehampton, was concerned about the farm's water quality because it was taken from a borehole and had a high iron content. The iron deposits caused a biofilm to build up in the water lines which harboured a range of bacteria.

"The water quality was poor and we were pulse feeding an antibiotic to control ileitis (inflammation of the ileum in the small intestine) in the pigs. We also often saw ulceration in the stomach of finishing pigs."

Mr Knox looked to the poultry industry for solutions because the sector has conducted more work on improving water quality.

"That's where I came across the approach being taken by St David's vet Richard Turner and a company called Liquid Mineral Services," says Mr Knox. LMS carried out a joint visit with Mr Knox's own pig vet Fran Baird from the George Vet Group, Malmesbury, Wiltshire.

Together the parties carried out a whole-farm review and formed a plan to clean the water using chlorine and to add a blend of organic acids to lower the pH levels. In simple terms the disease-causing bacteria prefer a higher or more alkaline pH while the beneficial bacteria, such as the lactobacilli, thrive in more acidic or lower pH levels.

Organic acids were introduced gradually and the pH has been lowered to about 4.2. As part of the whole farm review Mr Knox had a separate water source tested. The water was from a spring and naturally had a much lower pH.

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“So as part of the health plan we switched from the borehole to the spring water,” he says.

The farm also changed its feeding system, switching from bought-in compound to mill and mix its own food with the help of nutritionists Harbro.

“They came up with a simple wheat, barley, soya, and fishmeal diet which were all good raw, unadulterated ingredients.”

The farm made a change to a different feed form and formulation by switching from traditional compound pellets to using Harbro’s “Tropper” mill and mix machine. This was done with advice from Harbro adviser Jonathon French and their nutritionist Kevin Stickney.

Mr Baird says the combination of rolling and grinding cereals has improved stomach and gut health to the extent that no gastric ulceration is now seen in finishing pigs, which had previously been causing mortality at an average of one to two pigs a week.

All in-feed antibiotics have been removed from the rations due to the increase in grist size improving gut health. Mr Baird says this needs to be constantly monitored to ensure the optimum combination of good intestinal function and feed conversion.

Mr Knox says the results of the changes have been dramatic. “The bloom of the pigs is fantastic; everything is looking really good. The quality, the cover on the pigs and the dung is worlds apart from where we were just 18 months ago.

“We don’t get the gut ulcers or the ileitis and don’t feed any antibiotics at all saving £30,000 a year.”

The George Vet Group continually monitor performance and disease challenges during their regular quarterly health visits. Mr Baird says the combination of water treatment and feed changes on Mr Knox’s farm reflect the drive from the UK pig industry to reduce antibiotic usage.

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