

As the pig industry battles on to find alternatives to banned growth enhancers, producers are seeking new ways to tackle old ills. Colitis, for some farms, is a factor of modern production and producers use many techniques to control it. Enzymes are just one of the methods which are proving very useful. Here, we report from an East Anglian farm where commercial trials and past experience have brought significant improvements to pig performance and health.



Gordon Ayre (right) aims for the highest health status possible using strategic medication. Enzymes have brought exceptional improvements to growth, FCR and overall wellbeing along with valuable cost benefits to his growing and finishing enterprise.

# RUNNING OUT OF PERFORMANCE: DIY trial cures digestive ills

**G**ordon Ayre has been running a successful weaner production enterprise in Laxfield, Suffolk, for over 30 years, producing around 80 pigs per week.

However, in more recent times, Gordon began to question the logic of only benefiting from one profit centre, in weaners, when there may be further advantages to be gained by

finishing pigs through to slaughter weight.

With this in mind, and also the return of his son Adrian to the farm, a tailor-made finishing house with straw-bedded floors and curtain ventilation was erected at the unit.

The first pigs were introduced in October 1997.

This new enterprise, comprising eight pens of 60

finishing pigs, has an output of approximately 55 pigs per week.

### High Health

Gordon's high health and welfare standards means that it takes around eight weeks to grow pigs from a 35kg starting weight, to an 85kg liveweight target.

He maintains the high health status and avoids blanket medication, by spot

medicating specific pigs for particular conditions.

Prior to the development of this new enterprise, the weaner unit had experienced a low level colitis problem.

The farm has no history of growth promoters/enhancers and so on the vet's advice, barley had been incorporated into the diet to attempt to counteract the problem.

## Commercial trial results support research evidence

The following tables show pig performance improvements seen in commercial trials carried out by Forum. Table 1, shows the combined results from 20 research trials involving 8800 pigs from 28-95kg liveweight. Pigs were fed wheat based diets supplemented with Porzyme 9300

Table 2 shows results from a UK trial with pigs from 33-93kg liveweight, conducted at MLC pig development centre, Stotfold (1996). Diets are again wheat based, with an enzyme supplement

Although the weight range of pigs used in these trials are slightly different than those tested on Mr Ayre's farm, the improvements made to average daily liveweight gain and FCR and consequently production costs, are conclusive and support his results.

**TABLE 1:**

Results trials monitoring pigs from 28-95kg, fed wheat based diets including Porzyme 9300.

	Control	Plus Porzyme	% Improvement
ADG (g/day)	834	877	5.1
FCR	2.71	2.63	3.0

**TABLE 2:**

Trial results from MLC Stotfold pig development unit in 1996 monitoring pigs from 33-93kg.

	Control	Plus Porzyme	% Improvement
ADG (g/day)	836	871	4.0
FCR	2.43	2.29	5.8

This did bring about a slight improvement. However, in 1996, Forum Animal Nutrition and Health suggested incorporating the feed enzyme, Porzyme, into the ration. Its aim was to provide a long term improvement in the situation.

This was successfully carried out and completely eliminated the colitis problem.

### Success

Based on this previous success, Forum persuaded Gordon to run a structured trial using enzymes on his new finishing unit.

The aim was to examine the effects of including the supplements in grower and finisher pig diets, under a real commercial farm situation.

And, this idea was also well supported by premix and compound feed business Farm Nutrition Ltd. Gordon's unit mills and mixes its own grower and finisher diets, and the company has long-standing commercial interests in the farm business.

### Technical

The company supplies technical information and premixes to a number of pig producers in the area.

The trial began in August 1998, after the unit had been running for 10 months.

The study ran for 43 days and involved 120 pigs, with a start weight of approximately 40kg.

All animals received the same 70 per cent wheat and 18.5 per cent soya-based feed.

The 14MJ diets

comprised 20 per cent protein level, with 1.2 per cent lysine.

However, half of the pigs were fed a diet supplemented with the feed enzyme Porzyme 9300.

### Improvement

A visual improvement in the general health of the pigs was noticed within the first five weeks of the trial.

However, it was not until the trial was completed that the tangible benefits of adding Porzyme to the diet could be assessed.

At the end of the study, pigs in the Porzyme-supplemented group were, on average 5.7 per cent heavier.

There was also less variation in end weights, (standard deviation was improved by 14.6 per cent).

And this represented a substantial economic benefit to Gordon.

The increased weight of the Porzyme supplemented group was due to a 9.5 per cent improvement in daily liveweight gain, and a 9.8 per cent reduction in FCR.

The net effect of these improvements, states Gordon, was a 7.5 per cent reduction in the cost/kg liveweight gain, which included the cost of incorporating Porzyme into the diet.

### Crisis management

As a result of this, and in the light of the current crisis effecting the pig industry, Gordon has decided to incorporate Porzyme into all of his finisher diets.

He hopes the improvements seen in growth and FCR will tip the balance a little more in his favour.

Keeping an eye on the future. Progressive producers should be looking at alternatives

