



perfect

gut conditioner and microbial optimiser for young animals, particularly in high stress environments.

promotes healthy growth - naturally

kiotechagil

Performance in aquaculture&agriculture

perfect

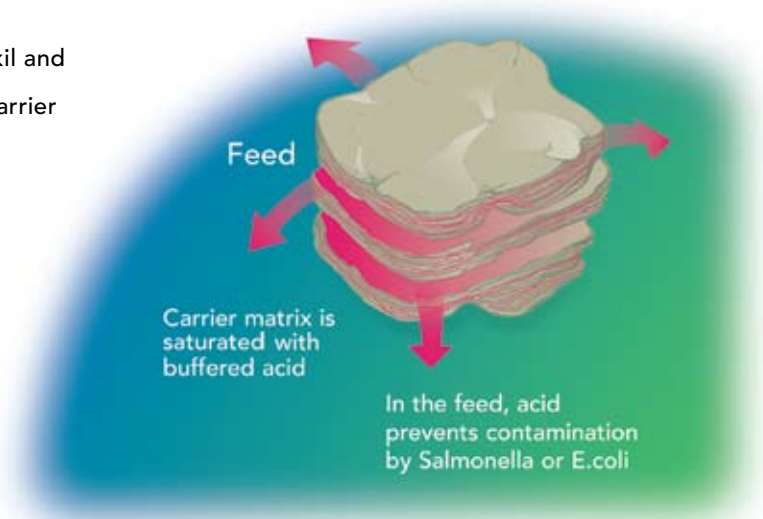
Prefect encourages the development of a healthy gut microflora, especially in the young animal, which will benefit its digestive and immune development.

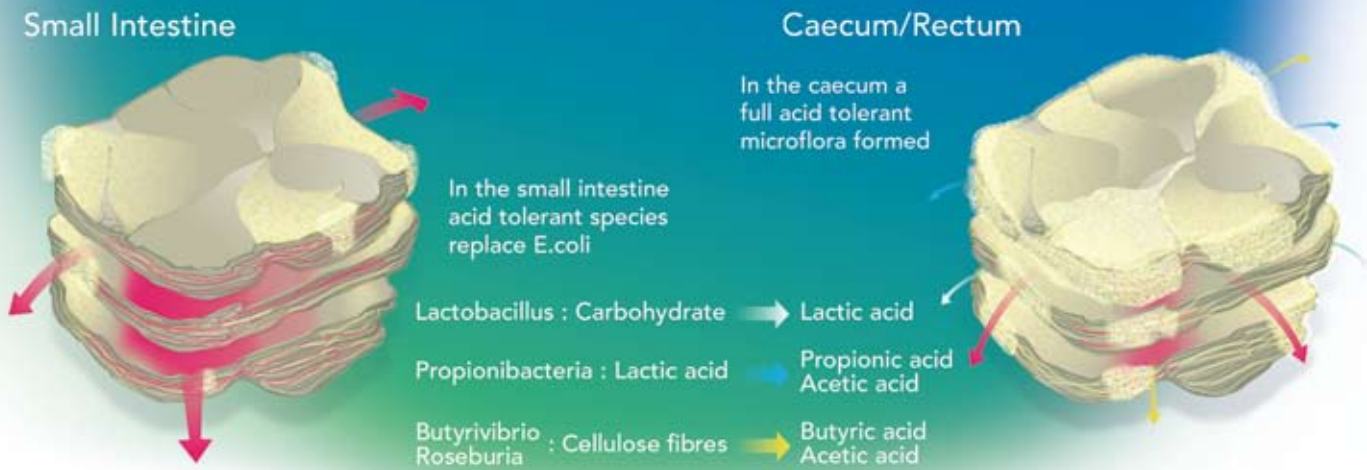
- Prefect is ideal as part of a salmonella control programme.
- Prefect can reduce anti-clostridial activity when used together with correct dietary formulations, reducing the occurrence of necrosis problems.
- Prefect reduces intestinal disorders from enteropathogenic bacteria such as E.coli, salmonella. and Campylobacter.
- Prefect matches the performance associated with traditional antibiotic growth promoters without any of the problems associated with feeding antibiotics.
- Prefect has no resistance problems, residues or withholding time.

Prefect is a buffered blend of specific carboxylic acids on a unique mineral carrier system combined with a fructo-oligosaccharide (FOS) source to promote a healthy gut microflora. The product is designed to protect the digestive tract from enteropathogens and encourage the growth of healthy commensal bacteria, necessary to optimise the digestive activity.

Prefect is based on the same concept as Salkil and Bact-A-Cid with acids blended on a unique carrier matrix in order to protect them. This gives three vital functions:

1. Increases the surface area to enable undissociated acid vapours to diffuse through the feed more easily, enabling better contact by the acids with pathogenic bacteria.



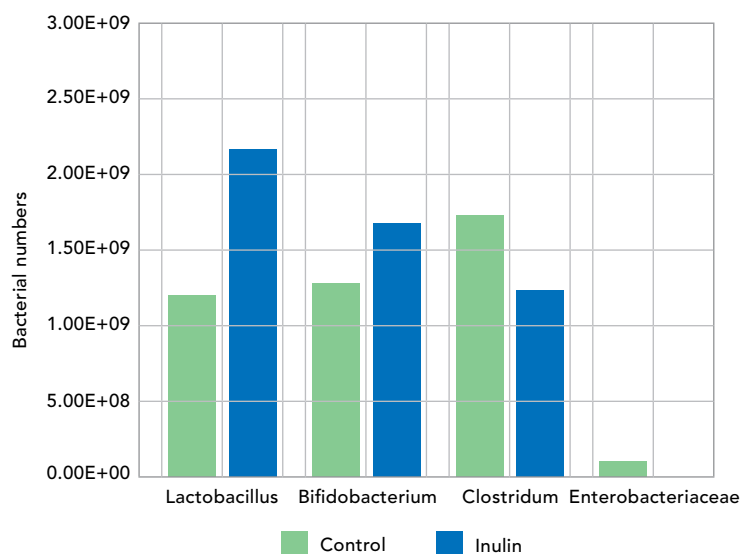
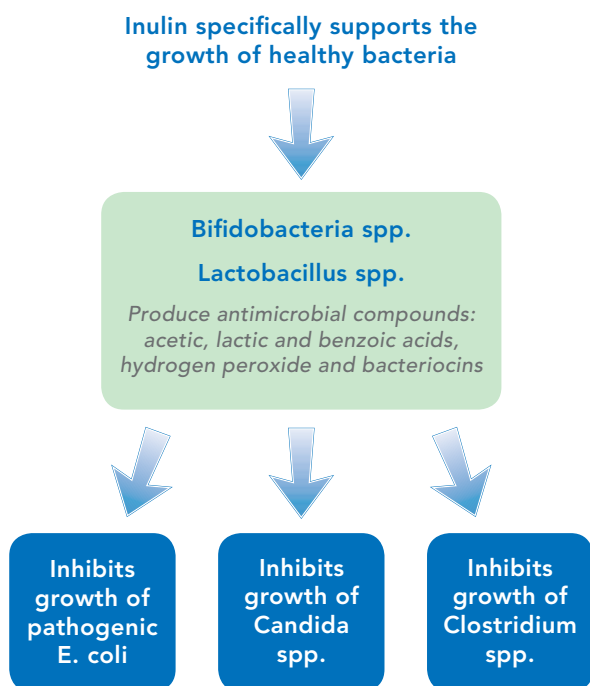


2. Protects the acids from dispersing into the gut lumen where they would normally be metabolised.
3. Enables the slow release of acid along the intestinal tract and provides an inert substrate for the colonisation by acid tolerant bacteria such as Lactobacillus, Bifidobacteria, Propionibacteria, Butyrivibrio and Roseburia. These bacteria produce lactic acid and other secondary metabolites to maintain a lower pH in the intestinal tract.

The protected acids are essential to provide a lower pH microenvironment, whilst the mineral carrier provides a support matrix for the development of an acid tolerant intestinal microflora.

Fructo-oligosaccharides are naturally occurring complex sugars, which are not metabolised by the host animal or many of the potential pathogens that can colonise the immature gut. FOS are important in the hindgut where due to normal digestive processes there may be a deficit of fermentable carbohydrate to support a healthy gut microflora.

The Effect of Inulin (FOS) on Bacterial Selection



In piglets, Bifidobacteria normally decline rapidly after weaning due to the loss of lactose as the fermentable carbohydrate source. In weaned piglets the proliferation of Bifidobacteria following use of Prefect has shown to greatly reduce the risk of post-weaning scours.

Additionally Prefect contains butyric acid which is a colonocyte nutrient contributing to maintenance and growth of the intestinal villi of piglets as well as inhibiting the growth of several species of potential pathogenic bacteria in the gut. Its major benefits are:

- to improve ileal villi length by up to 30%
- help regenerate damaged villi and so contributes to the establishment of maximal nutritional absorption.

These features give Prefect a broader range of activities than conventional "acidifiers" and benefit the producer by matching the performance enhancing effects normally attributable to antibiotic growth promoters.

Prefect is a "gut conditioner" optimising digestive performance by protecting feed from post processing colonisation by enteropathogens and encouraging the establishment of a healthy gut microflora and villi structures.

Protected acid on a carrier + FOS + Butyrate = Prefect = Biosecurity + Growth Enhancement

=> Higher profitability

trial results



Lactating Sow & piglet performance – N. Ireland

Part 1 : Control : Standard lactating sow ration
 Trial: Standard lactating sow ration
 +2kg /t Prefect

Part 2 : All piglets weaned on day 27. Additional piglets to make up 178 piglets/room. Performance comparison to 20kg and from 20kg to 40kg.
 Control : Standard diets containing 40mg/kg Avilamycin
 Trial : Standard diets containing Prefect 3kg/t

	Control	Prefect
No. of sows	9	10
Av. weight loss (kg)	49.85	37.13 ¹
Av. P ₂ loss	49%	26% ²
Piglets/crate at start	11	11.33
Av. start weight (kg)	3.08	2.81
Av. weaning weight (kg)	6.80	7.17
Daily gain (g)	220	240 ³
Total creep feed intake (g)	714	715

	Avilamycin		Prefect	
	Weaner	Grower	Weaner	Grower
No. of pigs	178	178	178	178
No. of days	27	33	27	33
Start weight (kg)	7.26	19.46	7.86	19.87
End weight (kg)	19.46	41.43	19.87	41.30
Av. daily gain (g)	452	665	445	650
Av. daily feed intake (g)	250	1220	529	1170
FCR	1.15	1.84	1.19	1.80 ⁴

¹ Improved nutrient utilisation reduced lactating sow weight loss by 13kg/sow.

² Increased intake helped maintain sow condition (reduction in P2 loss).

³ Suckling piglet performance was better from sows on acidified feed.

⁴ FCR performance during weaner and grower periods on the trial feed demonstrated Prefect as a suitable alternative to AGPs.



trial results - continued

2

Prefect was compared to the antibiotic Colistin used to control enteric problems and optimise growth in young pigs.

	Standard feed + Colistin 120ppm	Standard feed + Prefect 3kg/t
No. of piglets	80	80
Cumulative after 35 days:		
Weight gain (kg)	12.227	12.503
Feed consumption (kg)	14.683	14.703
FCR	1.202	1.177

Overall performance of the Prefect group was superior.

Prefect at 3kg/t offers a real alternative to Colistin at 120ppm in the management of weaned pigs.

3

Grower/Finisher Trial - Ireland

A trial on a 700 sow unit in the Irish Republic producing pigs to be grown to slaughter weight assessed the benefit of replacing Flavomycin with Prefect at 3kg/t at the grower/finisher stage. Due to space constraints it was not possible to run the trial with conventional control groups. The trial compared a three month trial group performance against the average of the previous 3 x three month periods.

	Av. Q1-3 with Flavomycin	Trial Q4 with Prefect	Difference
Weaning weight (kg)	6.5	6.5	-
Transfer weight (kg)	37.7	39.0	+2.3
Slaughter weight (kg)	97.8	99.5	+1.7
Feed/weaner (kg)	52.1	48.5	-3.3
Feed/finisher (kg)	170.6	162.1	-8.5
Total feed/pig (kg)	222.8	210.9	-11.9 = 5% improvement
Age at weaning (days)	25	25	-
Age at transfer (days)	87	87	-
Age at sale (days)	165	155	-10 = 6% improvement
Weaner ADG (g)	491	521	+30
Finisher (g)	783	894	+111 = 14% improvement
Weaner FCR	1.73	1.5	+0.23
Finisher FCR	2.79	2.68	+0.11
Weaning to sale FCR	2.44	2.27	-0.17 = 7% improvement
Finisher mortality (%)	1.8	1.3	-0.5 = 28% improvement

The performance results significantly improved the profitability of the herd, even after the cost of Prefect was taken into account.

4 Finisher Pig Trial –NSW Australia

10-week-old grower pigs were sorted to equal sized male and female groupings matched as closely as possible for size and condition. Liveweights were not available. Trial pigs were maintained on Prefect (2kg/t) to 24 days prior to moving to the finisher housing where no supplements were used in either group. Treated and control pigs were slaughtered over a 3 week period when reaching market weight.

	Control	Prefect pigs	Difference
No. of pigs	85	87	+2
Liveweight at slaughter (kg)	102.3	105.7	+3.4
Days to slaughter	162.3	161.1	-1.2
Growth (g/day)	632.7	658.0	+25.6
P ₂ (mm)	11.3	12.1	+0.8

Prefect treated pigs on average were 3.4 kg heavier, took 1.2 days less to achieve market weight and were 0.8mm at the P2 carcass fat measurement site

The results are similar to other commercial studies which show that supplementation with Prefect improves live weight gain and feed conversion. In this study the return on investment was 1:9.

packaging and storage

Prefect is packed in 25kg plastic sacks.

Prefect is a granular formulation, which can be introduced in feed without premixing or expensive equipment. It may be used in premixes but it is recommended it is buffered with a soft vegetable ingredient prior to inclusion. Prefect is non-corrosive to milling equipment and safe to handle.

Inclusion level in feed is 2kg/t – 3kg/t.



For further information

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