


## Mobile NIR technology

 Evonik has launched AMINONIR Portable, a mobile NIR service with a world's-first feature: amino acid calibrations.

AMINONIR Portable enables the reliable determination of energy, nutrients in feed raw materials and feed, as well as amino acids in feed raw materials, on-site and independent of a laboratory.

The hand-held device connects with the user's tablet or cell phone. It only requires mobile signal reception and a handful of feed or raw material without further sample preparation to determine their quality at almost any location within minutes.

"The efficiency of animal feeding, and the ecological footprint of

livestock farming, strongly depend on the nutritional quality of raw materials and feeds," Dr Stefan Mack, head of Service Marketing in the Animal Nutrition business line at Evonik, told International Pig Topics.

"We have always supported our customers in optimising those. Now, as the first in the world, we are offering a comprehensive mobile solution.


"This will allow for timely quality checks and decision-making at critical steps in feed production which is very difficult to achieve when relying only on the traditional laboratory setup."

The device and corresponding service packages can be ordered via Evonik's webshop

[myamino.evonik.com](http://myamino.evonik.com)



## Minerals for performance

 In-vitro and in-vivo research studies have shown that

supplementing diets of grower finisher pigs with hydroxychloride sources of zinc (Zn) at levels below EU regulatory levels can support improved growth performance and carcass characteristics compared to sulphate sources of trace minerals.

From an environmental perspective, the researchers also found that pigs receiving hydroxychloride sources of copper at nutritional levels, excreted less copper into the environment compared to pigs fed sulphate sources at the same nutritional level.

The findings suggest an opportunity for pig nutritionists and farmers to address both environmental and antimicrobial resistance concerns associated with livestock production and the use of copper in animal feed.

Researchers compared the source (hydroxychloride or sulphate) of zinc supplementation and the level (20mg/kg Zn as a low level and 80mg/kg Zn as a nutritional level); evaluating effects on growth performance, carcass characteristics, mineral content and mineral apparent total tract digestibility in grower-finisher pigs reared under commercial conditions.

Copper was fixed at 15mg/kg in all diets, using the same source as the supplemented Zn in each diet.

The apparent total digestibility of Zn and Cu was higher for pigs fed hydroxychloride Zn supplemented at 80 mg/kg compared to pigs fed the same level of Zn from sulphate sources ( $p=0.039$  and  $p=0.049$  for Zn and Cu respectively). The carcass

yield was higher for pigs fed hydroxychloride Zn compared to pigs fed sulphate sources, regardless of Zn level used ( $p<0.0001$ ).

Although pigs fed sulphate minerals showed improved performance during the grower period, pigs fed hydroxychloride minerals showed improved performance during the finishing period and a greater carcass yield and mineral digestibility compared to pigs fed sulphate mineral sources.

ADG in the finisher period was 774g for pigs receiving hydroxychloride zinc compared to 728g ( $p=0.088$ ) for pigs receiving sulphate counterparts. Pigs fed Zn and Cu hydroxychloride mineral sources also had a higher carcass yield ( $p<0.0001$ ) than those fed Zn and Cu sulphate mineral sources.


Diets containing lower supplemental levels of Zn decreased the Zn ( $p<0.0001$ ) and Cu ( $p=0.018$ ) excretion by 45.5% and 18.5% respectively.

The study findings complement previous studies reporting that Zn and Cu excretion could be reduced without negative effects on growth performance, for instance, by 50% by reducing micro-mineral supplementation below commercially used levels.

"These findings build on prior research regarding the beneficial effects of hydroxychloride minerals on animal health, while also offering encouraging insights for animal nutritionists and producers concerned about protecting the environment," Trouw Nutrition researcher Sandra van Kuijk, told International Pig Topics.

[trouwnutrition.com](http://trouwnutrition.com)

## Secure the piglet's gut naturally

 Piglet demedication is a great challenge for the pig industry. Thanks to its expertise in this field and leader in France with more than 85% of its feed sold without antibiotics, CCPA innovates and launches IMMAX, a complete feed solution to support its customers in this process.

Antimicrobial resistance is a global health concern. The use of antibiotics as a preventive treatment and zinc oxide in therapeutic doses are an issue. Many countries have banned their use for natural and effective alternatives. In this context, CCPA has launched IMMAX, a natural solution that secures the digestive process of piglets.

IMMAX is a unique feed solution. Thanks to its synergetic combination of plant extracts (Scutellaria Baicalensis, Curcuma and Green Tea extracts) and a prebiotic source (sodium gluconate), it provides a full protection of the digestive system.



Based on trials in its experimental farm and in commercial farms, IMMAX has demonstrated three actions.

Firstly, the plant extracts act as cellular protectors with positive effects on integrity of intestinal epithelial cells. This contributes to strengthen barrier function and helps nutrient absorption.

A second positive effect of the plant sources are their anti-secretory activities which helps to regulate transit.

Finally, the prebiotic effect positively modulates the microbiota.

The advantages of IMMAX include:

- Contributes to the health of the intestinal epithelium.
- Encourages balance of the intestinal flora.
- Improves digestive comfort and growth in piglets.
- Helps to limit zinc emissions into the environment.
- Contributes to demedication for a sustainable use of antibiotics.

Demedication is a complex approach that must be combined with correct sanitary status, strict biosecurity measures and optimal farm management.

This is why CCPA proposes DEMEUS, the first mobile app designed to support pig farm nutritionists to drive demedication strategies in post-weaning and offer personalised nutritional advices.

The digital app is available on the Google play store and Apple store.

[groupe-ccpa.com](http://groupe-ccpa.com)