

# OTHER STRATEGIES TO ENSURE WEANING WITHOUT ZINC OXIDE AND WITH REDUCED POST-WEANING DIARRHOEA

## THE PRACTITIONER'S APPROACH

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In France, dealing with colibacillosis after weaning was historically done with antibiotics (colistin mainly, aminosids in second intention). The use of zinc oxide (ZnO) at high doses to prevent colibacillosis was not authorized. Illegal use of zinc oxide (top feeding) was found in some rare herds.

Since 2007, French pig production has been a lot concerned by the reduction of the use of antibiotics (reduction of 50% of the pig exposition to antibiotics from 2007 to 2016). Dealing colibacillosis without antibiotics and of course without ZnO has been a big concern for veterinarians. During this period, a lot of work has been done on the management of the farms and some key points have been identified as:

- » Quality of the piglet at weaning
- » Training the piglet to eat in farrowing facilities
- » Comfort in post weaning facilities (heating, ventilation...). Now, this key point remains probably the main limit to reach the objective of dealing with colibacillosis without ZnO and antibiotics.
- » Quality of water and access to water
- » Feed quality and feed access : a lot of work has been done by feed companies to produce starter adapted to the piglets
  - ⇒ Pre-starter diets (reduction of the non-digestible protein part – use of high quality raw materials (plasma, fish protein, biscuits...)) up to 7kg are used more and more for piglets weaned before 28d of age.

Many changes have occurred in 2016 in the French legislation regarding the available solution to deal with colibacillosis.

First, ZnO (GUTAL) was allowed (3000ppm for 14 days at weaning), now we estimate that 15% of the piglets receive a starter diet supplemented with ZnO. But the use of ZnO in France is still a lot discussed.

- » We observe quite often a reduction of the feed intake when ZnO is used at 3000ppm with a reduction of the piglet growth.
- » The co-selection of antibiotic resistance are worrying practitioners
- » The use of ZnO in starter diets often shift the diarrhea after the transition to the second diet at 12kg.

Secondly, use of colistin was more regulated. Colistin in France cannot be used anymore in prevention of colibacillosis and can be used for a maximum duration of 7 days. Due to this colistin is now only used through dosing pump in case of diarrhea.

Thirdly, Coliprotec F4 and F4/F18<sup>®</sup> have been labelled on the French market. They are now a tools used to deal with colibacillosis. More than 5% of the French piglets are vaccinated.

Other strategies are used to deal with colibacillosis (acidification of water and feed with organic acids, essential oil, probiotics...). They can give good results in some cases but fields studies confirming their efficiency are rarely consistent even if in vitro studies are promising.

We estimate that dealing with colibacillosis and ZnO is not a big issue for 50 to 60% of French pig farms. In 20% of the pig farms, it will be easily managed with a single treatment if diarrhea is seen. However, in 20% of the farms, it will be more problematic (mainly due to housing conditions problems).