Title: Use of protected zinc oxide in lower doses in weaned pigs in substitution for the conventional high dose zinc oxide

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Use of protected zinc oxide in lower doses in weaned pigs in substitution for the conventional high dose zinc oxide

Running head: Protected zinc oxide in weaned pigs

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Highlights

- Dietary supplementation of protected vs conventional ZnO was evaluated in weaning pig.
- Growth performances in pigs fed protected ZnO at lower dose were comparable to high dose conventional ZnO.
- Nutrient digestibility was also comparable in pigs fed protected vs conventional ZnO.
- Fecal Zn concentration was reduced in protected versus conventional ZnO treatment.

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Abstract

This study tested the hypothesis that protected zinc oxide (ZnO) in lower doses can substitute the high dose conventional ZnO in weaned pigs for improved growth performance and alleviation of digestive disorders. A total of 150 crossbred weaning pigs (28 days old) with an average body weight (BW) of 6.48 ± 1.58 kg were blocked and stratified based on sex and randomly allotted to 1 of 6 dietary treatments [5 pigs per pen (2 barrows and 3 gilts); 5 pens per treatment] for a 6- wk trial in two phases. Treatments consisted of basal diet (NC); Basal diet without Zn in mineral premix with either 2500 ppm unprotected ZnO (PC) or 250, 500, 750

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