Accepted Manuscript

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PII: S0377-8401(17)30938-0

DOI: http://dx.doi.org/10.1016/j.anifeedsci.2017.09.006

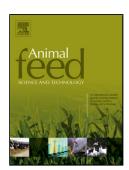
Reference: ANIFEE 13857

To appear in: Animal Feed Science and Technology

Received date: 25-7-2017 Revised date: 7-9-2017 Accepted date: 11-9-2017

Please cite this article as: Wan, Jin, Zhang, Jiao, Chen, Daiwen, Yu, Bing, He, Jun, Effects of alginate oligosaccharide on the growth performance, antioxidant capacity and intestinal digestion-absorption function in weaned pigs. Animal Feed Science and Technology http://dx.doi.org/10.1016/j.anifeedsci.2017.09.006

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ACCEPTED MANUSCRIPT

Effects of alginate oligosaccharide on the growth performance, antioxidant capacity and intestinal digestion-absorption function in weaned pigs

Running Head: Alginate oligosaccharide affects performance

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Highlights

- We investigated the effects of alginate oligosaccharide, a lyase depolymerised product
 of alginic acid polysaccharides, on growth performance, antioxidant capacity and
 intestinal digestion-absorption function in weaned pigs.
- Alginate oligosaccharide supplementation enhanced growth performance of weaned pigs, by elevating antioxidant capacity, serum hormones levels and intestinal digestionabsorption function.
- These results suggest that alginate oligosaccharide is a valid feed supplement for swine production.

Abstract: Alginate oligosaccharide (AOS), a depolymerisation product of alginic acid polysaccharides of seaweed by alginate lyases, holds great potential as a novel feed supplement in swine production. This study conducted two trials to evaluate the effects of AOS supplementation on the growth performance, antioxidant capacity, serum hormone levels and intestinal digestion-absorption function in weaned pigs. In trial 1, 200 weaned pigs were allotted to four groups and fed a basal diet (control group) or a basal diet containing 50, 100 and 200 mg/kg AOS, respectively.

Supplementation with 100 or 200 mg/kg AOS for 2 weeks significantly increased (*P* < 0.05) the average daily body weight gain of the pigs compared to the control group.

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