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# Dietary supplementation with algae and polyphenols in lactating sows: effects on sows and piglets' performance.

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## Abstract

The decrease of the use of antibiotic has promoted the scientific research towards the identification and study of natural substances able to improve animal performance and welfare (Hashemi et al., 2011; Daglia, 2012; Maghin et al., 2014). The aim of this study was to investigate the effect of mixture of algae plus polyphenols (Algatan Mater®) on piglet and sow performance when used as dietary supplements to the sows. Eighty-four sows (42 per batch) were divided in two groups fed a control and Algatan Mater® supplemented diet. Feed intake, backfat thickness and blood samples at entry in farrowing room and at 21 days of lactation, and sows' reproductive data until the next service were collected. Haematochemical parameters and antioxidant status of sows were analysed. Weight at birth, after cross-fostering and at 21 days of lactation were recorded to each litter. Backfat loss tended to be lower (P=0.07) in sows treated than control. The administration of algae plus polyphenols in sows improved (P<0.05) the piglets average daily gain and body weight at 21 days of lactation (P=0.014, Figure 1a.). Haematochemical parameters and antioxidant activity of blood was not affected by dietary treatment. The total number of piglets born at the next farrowing from treated group was higher (P=0.04) than controls (Figure 1b). The inclusion in lactating sows of Algatan Mater® improves lactating sows and piglets' performance. Further research is needed to explore the mechanism of action of this natural mixture.



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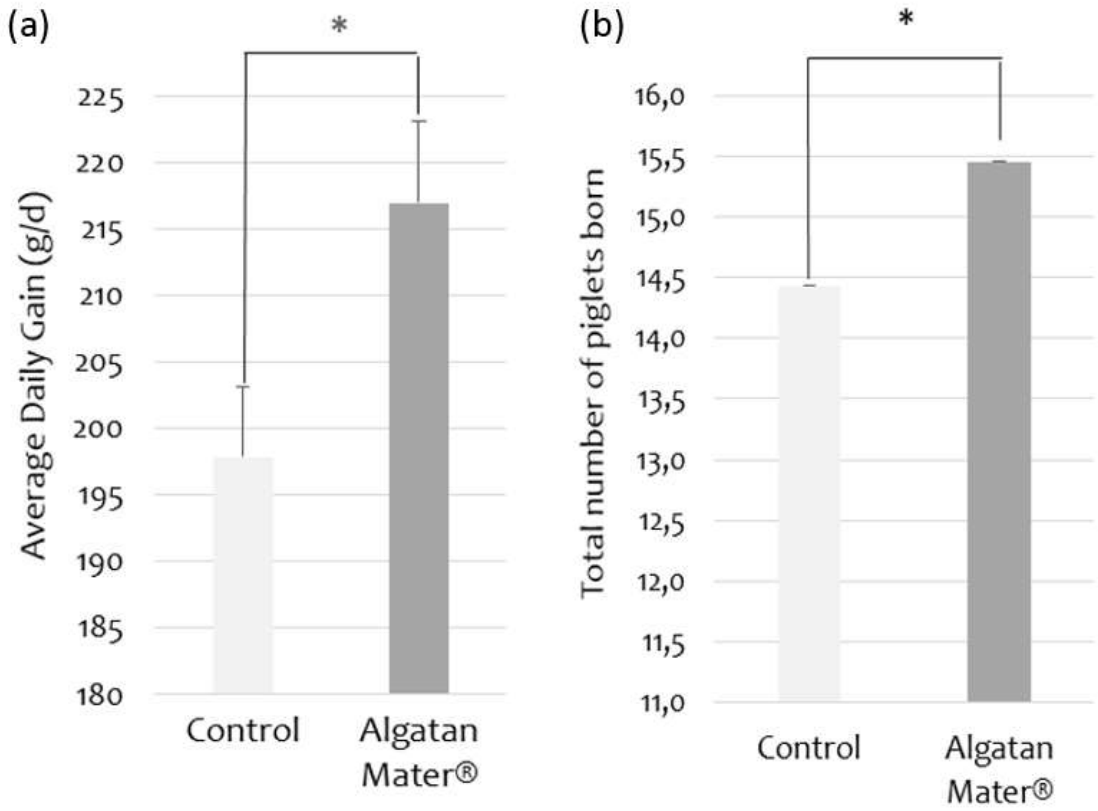


*Figure 1. (a) Average daily gain of the piglets at 21 days of lactation and (b) total number of piglets born from control and Algatan Mater® group.*

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