Biōnte
ANIMAL NUTRITION

In vivo effects of an anti-mycotoxins product in weaned pigs challenged by fumonisins: Insights into the animal performance and antioxidant status

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1. INTRODUCTION

In swine production, **fumonisins** (**FB1** and **FB2**) are known to induce several detrimental effects, such as **cellular immunosuppression**, **decreased weight gain**, **disruption** of the **intestinal barrier** and **oxidative stress**. To mitigate the harmful effects of mycotoxins in contaminated feed for pigs, **detoxifying agents** can be added as feed additives.

AIM: to **investigate the effects of an anti-mycotoxins product** that contains a selected **binding material** and **natural extracts besides an exclusive combination of yeasts**, on **animal performance** and **antioxidant status** in **weaned pigs** challenged by **FB1** and **FB2**.

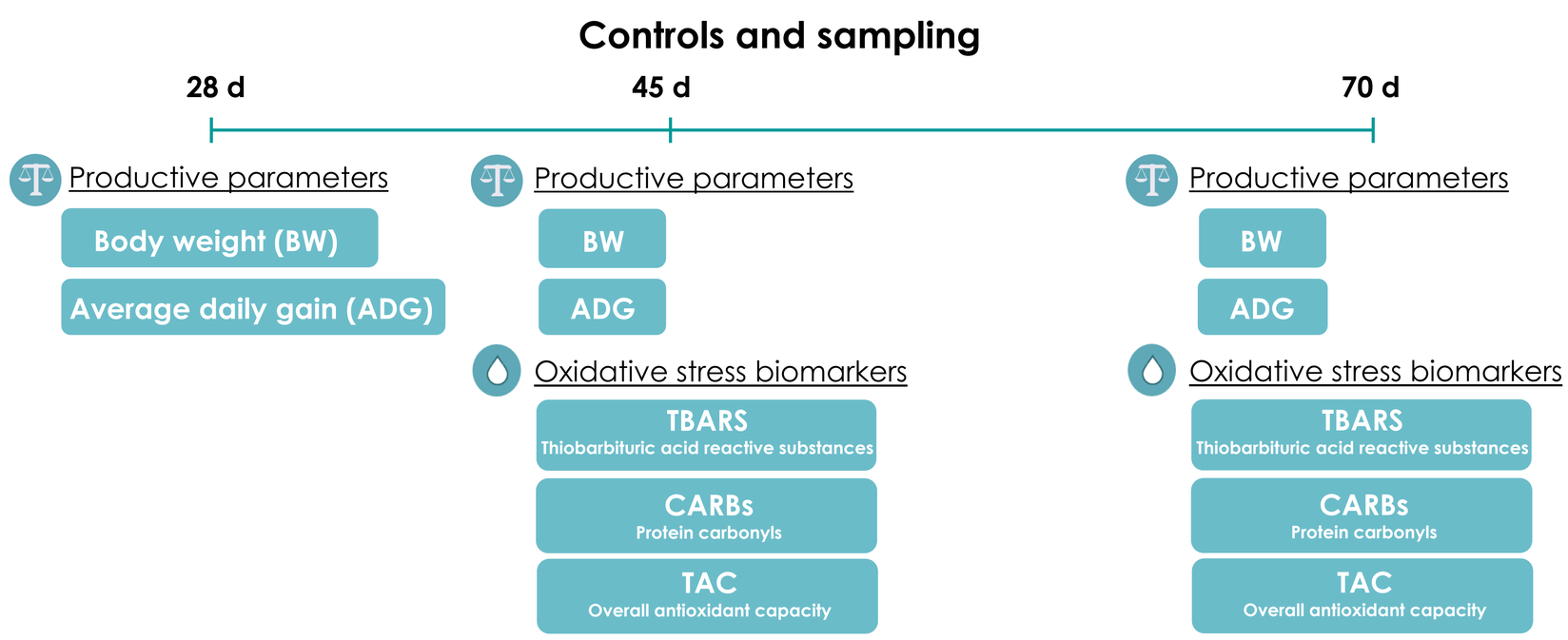
2. MATERIALS AND METHODS

Experimental animals
150 weaned pigs
(**28** d of age)

Dietary treatments:

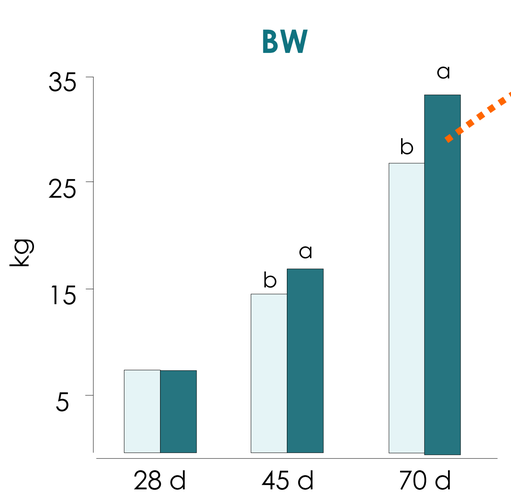
T1: challenging diet (naturally contaminated with **970.2 ppb of FB1** and **250.1 ppb of FB2**)

T2: **T1** + **2.5 kg** of the **anti-mycotoxins product**.

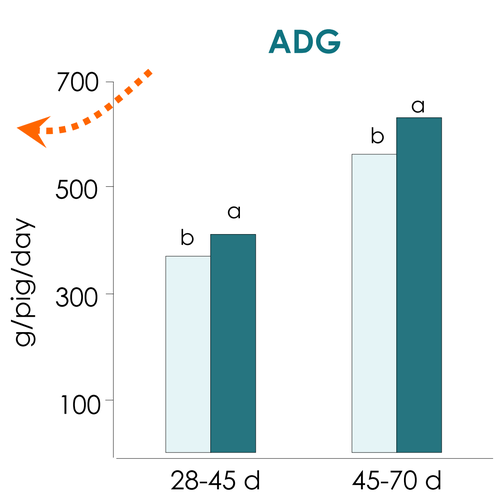


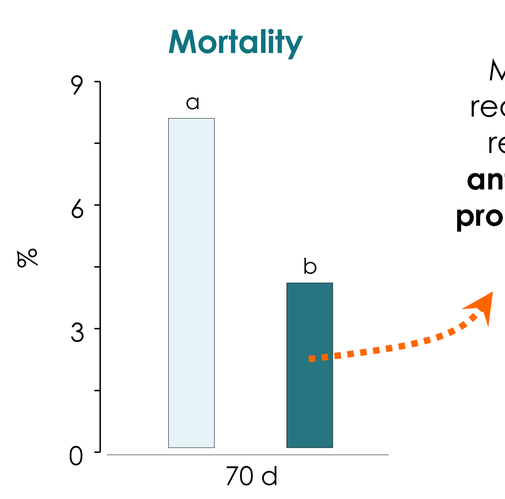
3. RESULTS

PRODUCTIVE PARAMETERS



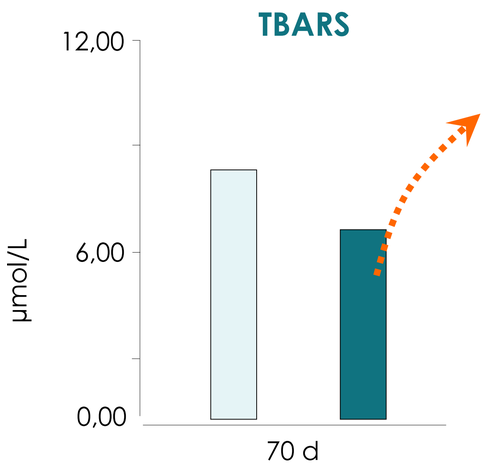
Pigs supplemented with **anti-mycotoxins product** showed higher **BW** and **ADG (*P*<0.001)**



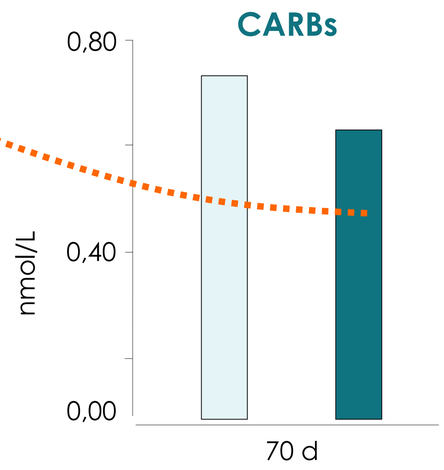


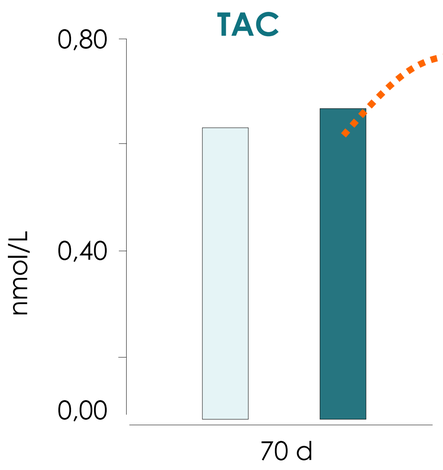
Mortality was reduced in pigs receiving the **anti-mycotoxins product (*P*<0.001)**

OXIDATIVE STRESS BIOMARKERS



Significantly **lower** in **T2 treatment (*P*<0.001). The anti-mycotoxins product** reduced the **oxidative stress**.





Significantly **higher** in **T2 treatment** (***P*<0.001**), thus indicating an **improvement in the antioxidant capacity**.

T1: Challenging diet **T2:** Anti-mycotoxins supplementation

4. CONCLUSIONS

The **anti-mycotoxins product** containing a selected binding material combined with natural extracts and yeast products **improved** the **animal performance** and **enhanced the antioxidant status in weaned pigs** fed a diet naturally contaminated with **FB1** and **FB2**.