

**TITLE**

**FUNGAL FERMENTED PRODUCTS INCREASE GROWTH AND SLAUGHTER WEIGHT OF FATTENERS.**

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**CONTENT**

Fungal fermented products and their derivatives may play a role in replacing antibiotics in swine diets. Microbial enzymes produced by fungi can degrade polysaccharides of feed material resulting in indigestible oligosaccharides and disaccharides, which can bind intestinal pathogens and exhibit a prebiotic effect in the intestinal tract. On the other hand, fungal cell wall components including beta-glucans may reveal prebiotic as well as immunomodulatory properties, supporting intestinal health.

A combination of copra meal, enzymatically hydrolyzed by fungal derived beta-mannanase and rye fermented with mycelium of *Agaricus subrufescens* was fed to 440 piglets at a 0,2 % dietary inclusion level compared to a control diet. A 2x2 design was used, feeding either control feed or supplemented feed from 5 to 9 weeks of age and from 9 to 12 weeks of age. Pigs were moved from a nursery farm to a fattening farm at 9 weeks of age and slaughtered at 24 weeks of age. Feed intake was measured during both experimental phases and body weight gain was measured until slaughter.

Fatteners receiving feed additives had a higher feed intake (987+/-25 vs 873+/-28 gram/day) and body weight gain (571+/-8 vs 496+/-8 gram/day) during the experimental period. Pigs receiving feed additives in both experimental phases showed the biggest growth after the experimental period (784+/-6 vs 740+/-7 gram/day in the control group). Particularly small piglets (initial body weight <6 kg) and medium-sized piglets (initial body weight 6-7kg) did benefit from the feed additives resulting in a better growth during the experimental fattener phase (542+/-11 vs 467+/-11 and 568+/-11 vs 489+/-13 gram/day). Also, these piglets reached a higher slaughter weight when feeding feed additives during both experimental phases (107+/-1,3 vs 99+/-1,4 and 113+/-1,2 vs 103+/-1,5 kg).

These data show that pigs in general, but especially smaller piglets may benefit from fungal fermented feed.