

PubMed

Search

Display Settings: Abstract



Biol Trace Elem Res. 2008 Dec;125(3):229-35. Epub 2008 Jun 21.

Effect of montmorillonite superfine composite on growth performance and tissue lead level in pigs.

Yu DY, Li XL, Li WF.

Animal Science College, The Key Laboratory of Molecular Animal Nutrition Ministry of Education, Zhejiang University, Hangzhou, 310029, People's Republic of China.

Abstract

A feeding trial was conducted to study the effect of montmorillonite superfine composite (MSC) on growth performance and tissue lead levels in pigs. Sixty barrows were randomly divided into two groups. They were fed the same basal diet supplemented with 0 or 0.5% MSC, respectively, for 100 days. Serum samples were collected and analyzed to study growth hormone secretion pattern. The mean lead concentration in selected tissues was analyzed. The results showed that average daily gain, average daily feed intake, and feed conversion ratio of pigs were improved by 8.97% ($p < 0.05$), 3.90% ($p < 0.05$), and 4.76% ($p < 0.05$), respectively, with the supplementation of MSC compared to the control group. Serum sample analysis indicated that peak amplitude, base-line level, and mean level of growth hormone were increased by 117.14% ($p < 0.01$), 42.78% ($p < 0.01$), and 51.75% ($p < 0.01$), respectively. Supplementation of MSC in the diet was found to significantly reduce lead concentration of tissues in blood, brain, liver, bone, kidney and hair.

PMID: 18568297 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms, Substances

LinkOut - more resources