

Adsorption properties of natural zeolite and bentonite in pig slurry from the microbiological point of view [1999]

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Abstract

The influence of zeolite and bentonite on physical-chemical and microbiological parameters of pig slurry was studied. After 28 days of contact of pig slurry either with zeolite or with bentonite, the plate counts of psychrophilic and mesophilic microorganisms decreased by 3 orders of magnitude in comparison with the control. The efficiency of removal of psychrophilic and mesophilic microorganisms was 98.9 % and 100 %, respectively. Coliform microorganisms were not detected after 14 days of the treatment of slurry either with zeolite or with bentonite. No fecal coliform microorganisms were detected in bentonite-treated slurry after 7 days of contact and in zeolite-treated slurry after 14 days of contact. During the experiment a decrease in the concentration of ammonium nitrogen (N-NH₄), total nitrogen (Nt), total phosphorus (Pt) and chemical oxygen demand (COD) was observed.

Other subjects

- ammoniac
- chemico-physical properties
- ammonia
- lisier
- propiedades fisicoquimicas
- composicion quimica
- bentonite
- estiercol fluido
- amoniaco
- analyse microbiologique
- zeolites
- bentonita
- zeolitas
- analisis microbiologico
- slurry
- composition chimique
- microbiological analysis
- porcin
- adsorbente
- swine
- adsorbents



- zeolite
- propriete physicochimique
- adsorbant
- ph
- cerdo
- chemical composition

Other information



Language : English

Type : Summary

In AGRIS since : 2000

Volume : 44

Issue : 11

Start Page : 339

End Page : 344

All titles :

" Adsorption properties of natural zeolite and bentonite in pig slurry from the microbiological point of view "

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