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Presenting author:

ABREU PAULO GIOVANNI DE - EMBRAPA SUÍNOS E AVES - PESQUISA - CONCÓRDIA, BRASIL

Other Authors and Affiliations:

CORRÊA JULIANO CORULLI - EMBRAPA SUÍNOS E AVES - PESQUISA - CONCÓRDIA, BRASIL

FRANZ IZAURA - UnC- Campus Concórdia - ENGENHARIA AMBIENTAL - CONCÓRDIA, BRASIL

MATTEI ROSEMARI MARTINI - EMBRAPA SUÍNOS E AVES - LABORATÓRIO - CONCÓRDIA, BRASIL

FEDDERN VIVIAN - EMBRAPA SUÍNOS E AVES - PESQUISA - CONCÓRDIA, BRASIL

ABREU VALÉRIA MARIA NASCIMENTO - EMBRAPA SUÍNOS E AVES - PESQUISA - CONCÓRDIA, BRASIL

COMPOSTING TIME OF CHICKEN LITTER WITH BIOCHAR FOR ORGANIC FERTILIZER PRODUCTION

The aim of the work was to determine composting time of chicken litter with different conditioners after six flocks for organic fertilizer production To perform composting, chicken litter without conditioner was used (control sample), 10% phosphogypsum, 10% biochar, urease inhibitor, 10% zeolite and 10% superphosphate in interaction with raising fermentative times which correspond to 0, 10, 20, 40 and 80 days after the beginning of composting The experimental design was in randomized blocks with 4 repetitions Litters were weighed and disposed in windrows arranged in approximately 0 80 m height and 1 7 m width Sampling was performed in 4 points of the windrow to form the whole sample, in which N, P and K analysis were done To achieve the ideal levels of moisture (55%), 40 L of water were added on the composting biomass Each two weeks, turnings in each windrow were performed The inner temperature of the windrows was verified at days 0, 13, 20, 15, 38, 46, 53, 60, 67, 75 and 80 After 20 days composting, nitrogen content stabilizes on phosphogypsum, biochar and zeolite substrates, what represents compost maturity This compound may then be utilized or commercialized as an organic fertilizer On the other substrates as control, urease inhibitor and superphosphate, no effect was significant regarding N stabilization, what allows inferring about the need for equal time or above 20 days to stabilize N forms Biochar application allows more N, P and K content in chicken litter after composting, what leads to higher efficiency in

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