



### USE OF PIG SLURRY AS FERTILIZER IN POND CARP PRODUCTION IN NORTHERN ITALY

Zoccarato, I.<sup>1</sup>; Gasco, L.<sup>1</sup> e Amaral, H. J.<sup>2</sup>.

<sup>1</sup> Dipartimento di Scienze Zootecniche, Via Leonardo Da Vinci 44, 10095  
Grugliasco (Torino) - Italy.

<sup>2</sup> EPAGRI - Empresa de Pesquisa Agropecuária e Extensão Rural de Santa  
Catarina S.A - Brasil / <sup>2</sup>CNPq Conselho Nacional de Desenvolvimento  
Científico e Tecnológico - Brasil

#### Abstract

During 112 days, six ponds stocked with common carp *Cyprinus carpio*, were fertilised with pig slurry at three different doses: 25 (L), 50 (M) and 75 (H) kg of slurry as dry matter per hectare. Moreover fish were fed with pelletised feed. Slurry (11%  $\pm$  1,15 as dry matter) was spread once a day for five days a week. Water temperature, pH, dissolved oxygen, total hardness as CaCO<sub>3</sub>, nitrites, nitrates, ammonia, phosphates as PO<sub>4</sub><sup>-</sup>, and COD, were monitored weekly. Fish survival was 100%, 93% and 86% intreatment L, M and H respectively. Final means weight was 470,0  $\pm$  2,8 g (L), 407,0  $\pm$  45,2 (M) and 358,0  $\pm$  19,1 (H). The quantity as wet weight, of slurry spread per day per ha was 245 kg, 491 kg and 736 kg for L, M and H treatment respectively. The oxygen level (mg/l<sup>-1</sup>) showed significant differences (P< 0,05) in L (10,08  $\pm$  4,37) vs M (7,40  $\pm$  4,79) and H (7,48  $\pm$  3,18) treatments: pH was significantly ( P< 0,01) lower (7,61  $\pm$  0,18) in L treatment than in the others two (7,74  $\pm$  0,16 M: 7,80  $\pm$  0,13 H). Relatively to the others water chemical parameters no significant differences were found.

Key words: Pig slurry, *Cyprinus carpio*, chemical parameters.

<sup>1</sup>Professore della Università Degli Studi di Torino

<sup>1</sup>Ricercatrice della Università Degli Studi di Torino

<sup>2</sup>Pesquisador da EPAGRI e Bolsista do CNPq

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