

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

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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 CaCO₃, nitrites, nitrates, ammonia, phosphates as PO₄⁻, and COD, were monitored weekly.

Fish survival was 100%, 93% and 86% in treatment L, M and H respectively. Final mean 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⁻¹) 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.

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