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

ZOCCARATO, I., GASCO, L., AMARAL, H. J.

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% ± 1.15 as dry matter) was spread once a day for five days a week. Water temperature, pH, dissolved oxygen, total hardness as CaCO$_3$, nitrites, nitrates, ammonia, phosphates as PO$_4$ $^-$, and COD, were monitored weekly.

Fish survival was 100%, 93% and 86% in treatment L, M and H respectively. Final means weight was 470.0 ± 2.8 g (L), 407.0 ± 45.2 (M) and 358.0 ± 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 ± 4.37) vs M (7.40 ± 4.79) and H (7.48 ± 3.18) treatments: pH was significantly (P< 0.01) lower (7.61 ± 0.18) in L treatment than in the others two (7.74 ± 0.16 M: 7.80 ± 0.13 H).

Relatively to the others water chemical parameters no significant differences were found.

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