ABSTRACT

IMMUNOGENICITY OF INACTIVE WHOLE CELL
Aeromonas salmonicida VACCINE COMBINATION WITH VITAMIN C
IN COMMON CARP (Cyprinus carpio)

By
NURMA JANA HAZZULLI

The addition of vitamin C in the vaccine is known to increase the immunogenicity and efficacy of the vaccine. The aim of this study was to increase the immunogenicity of an inactivated whole cell A. salmonicida vaccine with the addition of vitamin C in common carp (Cyprinus carpio). A. salmonicida was inactivated with formalin 1.5% (v/v). First vaccination was administrated with injected intraperitoneally (10^7 cells / fish) to common carps (size ± 30gr). Second vaccination (Booster) was administrated 7 days after the first vaccination with the same dose and method. Bleeding were performed before vaccination, 7 days after the 1st vaccines, and 7 days after the 2nd vaccines. Blood analysis including titre antibody, hematocrit values, and total leukocytes were observed in every blood sampling. The results showed that the addition 1000mg of vitamin C in vaccine provided the highest titre antibody, hematocrit value, and total leukocyte to other treatments (2^3 (64), 28%, 88,000 cells/mm^3), respectively at the last observation (7 days after 2nd vaccines). Water quality including DO, pH, and temperature, during research were measured within tolerable limits of common carp growth.

Key word: Inactive vaccine, vitamin C, Aeromonas salmonicida, common carp.
immunogenicity