

INTISARI

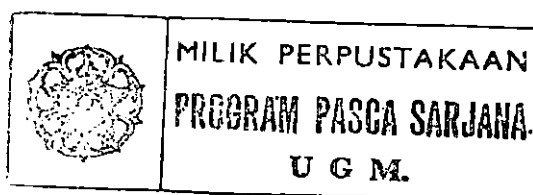
Vaksin *Aeromonas hydrophila* adalah salah satu cara untuk menanggulangi penyakit *Motile Aeromonas Septicemia* (MAS) pada lele dumbo. Penelitian bertujuan untuk mengetahui pengaruh interval waktu booster vaksin *debris* dan *sitoplasma A. hydrophila* terhadap status hematologis dan respon imun lele dumbo.

Penelitian disusun dalam Rancangan Acak Lengkap, taraf kepercayaan 95%. Penelitian diawali dengan reinfeksi dan reisolasi (3 kali) *A. hydrophila* pada 35 ekor lele dumbo. Sel *A. hydrophila* yang virulen dipecah dengan sonikasi menjadi *debris* dan *sitoplasma*. Lima puluh ekor lele dumbo dibagi dalam 10 kelompok perlakuan yaitu (1) kontrol [K₁]; (2) kontrol plasebo [K₂]; (3) vaksinasi dengan *debris* tanpa booster [P₁]; (4) booster 1 kali [P₂]; (5) booster 2 kali [P₃]; (6) booster 3 kali [P₄] dan (7). vaksinasi dengan *sitoplasma* tanpa booster (S₁), (8). booster 1 kali [P₄]; (9) booster 2 kali [S₃]; (10) booster 3 kali [S₃]. Dosis vaksin 25 µg/ekor. Interval waktu vaksinasi 1 minggu. Data diambil selama 10 minggu. Data dianalisis menggunakan Analysis of Variance dan Duncan's Multiple Range Test. Variabel yang dianalisa meliputi; jumlah sel leukosit, persentase jumlah sel limfosit, monosit, neutrofil, eosinofil, indeks fagositosis dan titer antibodi.

Hasil penelitian menunjukkan jumlah sel leukosit, persentase jumlah sel limfosit, monosit, neutrofil, eosinofil cenderung terjadi peningkatan dan penurunan secara fluktuatif dan tidak berbeda nyata antara K₁, K₂, P₁, P₂, P₃, P₄, S₁, S₂, S₃ dan S₄ pada minggu pertama sampai kesepuluh. Vaksin tidak meningkatkan status hematologis. Tetapi indeks fagositosis cenderung terjadi peningkatan secara fluktuatif dan berbeda nyata antara K₁, K₂, P₁, P₂, P₃, P₄, S₁, S₂, S₃ dan S₄ pada minggu pertama sampai kesepuluh. Vaksinasi dapat meningkatkan kemampuan fagositosis. Titer antibodi tertinggi pada minggu kedua dan ketiga, berbeda nyata antara K₁, K₂, P₁, P₂, P₃, P₄, S₁, S₂, S₃ dan S₄ pada minggu pertama sampai kesepuluh. Vaksinasi dapat meningkatkan respon imun adaptif melalui peningkatan titer antibodi. Vaksinasi dengan *debris* booster 3 kali (P₄) paling efektif.

Kata kunci:

Aeromonas hydrophila, *Debris*, *Sitoplasma*, *Vaksin*.



HIMATOLOGIC STATES AND IMMUNITY RESPONSE

ABSTRACT

Vaccin *Aeromonas hydrophila* was the one method to treatment diseases of *Motile Aeromonas Septicemia* (MAS) on catfish (*Clarias gariepinus*). The aim of this research was to determine the effect of vaccination intervals using *A. hydrophila debris* and *cytoplasmic* content on catfish (*Clarias gariepinus*) hematologic states and immune response.

The research was constructed as CRD, c.i. 95 %. Firstly, thirty five catfish were reinfected and reisolation (three times) with *A. hydrophila*. The virulent *A. hydrophila* was broken by sonication in to *debris* and *cytoplasm*s. Fifty catfish divided into ten treated group, i.e.(1) control [K₁]; (2) placebo control [K₂]; with *debris* vaccination (3) without booster [P₁]; (4) once booster [P₂]; (5) twice booster [P₃]; (6) tree time booster [P₄]; and cytoplasm vaccination; (7) without booster [S₁]; (8) once booster [S₂]; (9) twice booster [S₃]; (10) tree time booster [S₃]. The dosage was 25µg/fish. Vaccination interval was once a week. Data were taken for ten weeks. The data were number of leucocyte, percentase of lymphocyt, neutrophyl, eosinophyl, monocyte, phagocytocyt index and antibody titer were analysed ANOVA and Duncan's Multiple Range Test.

The research showed that the vaccination interval coul increase the number of leucocyte, percentase of lymphocyt, neutrophyl, eosinophyl, monocyte tend to fluctuated. The were no significantly diffrent between all treatments (P₁,P₂,P₃,P₄,S₁,S₂,S₃,S₄) and controls from 1st – 10th week. The vaccination could increase the phagositocyde capability. The highest antibody titer was reached on the 2nd – 3rd week, and significantly diffrent among all treatment and controls. The vaccination could increase the adaptive respon imun through the increase of antibody titer. Tree time debris booster (P₄) was the most effective vaccination.

Key words:

Aeromonas hydrophila, Booster, Cytoplasm, Debris, Vaccine.