

THE EFFECT OF SUPPLYING SHEEP SERUM AFTER
IMMUNIZATION WHOLE PROTEIN LARVA
MUSCA DOMESTICA TO THE GROWTH
OF PUPA BY IN VITRO

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ABSTRACT

This research was conducted as one of effort development of vaccine myiasis by house fly (*Musca domestica*) larva in sheep that was by doing in vitro bioassay test to *Musca domestica* larva that was given by serum anti-WPL (Whole Protein Larva) from sheep had been vaccinated with antigen from house fly larva body.

Musca domestica larva was extracted in media of PBS for whole protein larva isolation. Then result of whole protein isolation was conducted by electrophoresis with SDS-PAGE to determine molecular weight from whole protein fraction that was produced. Then, whole protein larva (WPL) was injected to two sheep in subcutan at femur with three times booster in two weeks after vaccination. Collecting serum anti-WPL was conducted to see antibody response and it was used to test its influence if given to house fly (*Musca domestica*) larva in vitro bioassay test.

In vitro bioassay test was added serum anti -WPL and control serum from sheep into medium where place was growth L3 *Musca domestica*. The growth of pupa was measured by observing the decrease in the growth speed of pupa by three treatment were control, P(I) and P(II).

Result of in vitro bioassay test showed that test speed of forming of pupa seen in control and P(I), speed of forming of pupa was same. In control and P (II), there was significant difference even though in P(I) and P(II) difference of speed was very significant. In P(II), forming of pupa was late. In control, 70% larva to become adult fly, seven pupa had weight between 0,2 – 0,3 gram and could live to become adult fly even though in P(I) and P(II) no one larva that esklosi to become adult fly. Weight of pupa less than 0,2 gr preference could not hatch to become adult fly.

Key word : *Musca domestica*, pupa, serum anti-WPL (Whole Protein Larva)