

Ekstrak daun mindi (*Melia azedarach*) sebagai bioinsektisida untuk pengendalian infeksi *Chrysomya bezziana* pada domba = methanolic extract of mindi leaf (*Melia azedarach*) as a bioinsecticide for controlling *Chrysomya bezziana* infection in sheep

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Abstrak

Parasitic dermatitis may cause economic loss for livestock industry if it is not appropriately controlled. Among the preventive measures available presently, the use of plant-derived insecticides is regarded as an alternative approach to control the disease since it is environmental and animal health safe. The purpose of this study was to assess the effect of mindi (*Melia azedarach* Linn.) extract leaves for controlling *Chrysomya bezziana* in vitro and in vivo. The study showed that the methanolic extract of *M. azedarach* leaves affected various stages of *C. bezziana* larvae. A topical application of 0.25% methanol extract in vaseline mixture killed and inhibited the growth of larvae and reduced weight gain of both L1 and L2 larvae. The average mortality rate in a treated group (26%) was higher than a control group (19.2%). Greater reduction of average weight gain was also seen in the treated group (0.2719 gr.) compared to the control group (0.4761 gr.). The larvae apparently had smaller size and wrinkled shape of anatomical structure seeming that they were inappropriately grown. While the average mortality rate of L2 was found higher in the treated group (46.8%) than the control group (22.4%). The leaf-methanol extract had greater effect to L2 than L1 as seen higher mortality rate in L2 (46.8%) than the L1 (26%). In conclusion that the higher dose rate of methanol extract applied and short period of time for bioassay. These findings seem very promising, suggesting that may possible to increase larvicidal effects by increasing the concentration and time of assessment.