

Narisara Piyasaengthong 2010: Effects of *Melia azedarach* L. and *Jatropha gossypifolia* L. Leaf Extracts on Mortality and Antifeedant Activity of *Spodoptera exigua* Hübner. Master of Science (Biology), Major Field: Biology, Department of Zoology. Thesis Advisor: Ms. Vasakorn Bullangpoti, Ph.D. 87 pages.

Spodoptera exigua (Hübner) (Lepidoptera: Noctuidae), an important insect pest of many field crops, has developed resistance to various insecticides, making its control increasingly difficult. This study explored the effects of *Melia azedarach* L. and *Jatropha gossypifolia* L. leaf extract on second instar *S. exigua* larvae survival by the dipping method and feeding method. The both of leaf extracts showed insecticide activities; the 24 hour highest toxicity is the crude extract of *M. azedarach* with ethanol 70% as varies solvent ($LC_{50} = 4031.61 \pm 527.581$ ppm) then the crude extract of *J. gossypifolia* extract with ethanol 70% as varies solvent ($LC_{50} = 6855.88 \pm 1699.650$ ppm), crude extract of *M. azedarach* with distilled water as varies solvent ($LC_{50} = 7775.85 \pm 821.015$ ppm) and crude extract of *J. gossypifolia* with distilled water as varies solvent ($LC_{50} = 17251.51 \pm 2145.518$ ppm). All extract shows no significant in toxicity over the time. In the case of contact toxicity on natural enemy, *Meteorus pulchricornis*, the both of crude extracts showed low toxicity. Both of extracts may be an alternative for natural pesticides against this insect pest in the future.

Student's signature

Thesis Advisor's signature