

Value Added for rearing and producing *Attacus atlas*

Sompoch Kaewrahn^{1/}, Sivilai Sirimungkararat^{2/}, Supachai Kamoltip^{3/}, and Kamol Apinakpong^{1/}

^{1/} Faculty of Agriculture, Khon Kaen University, Khon Kaen 40002

^{2/} Department of Plant Science and Agricultural Resources, Faculty of Agriculture, Khon Kaen University, Khon Kaen 40002

^{3/} Tip Mai Thai 1991 Partnership Ltd. 159 By-pass highway, Tambol Kannue, Amphoe Ban Pai, Khon Kaen 40120

Abstract

Survey and collection of Fagara silkworm (*Attacus atlas*) in the northeastern part of Thailand were conducted during 2010-2011. Larval and adult stages of the silkworm were found in areas of Khon Kaen, Sakol Nakon, Kalasin and Mukdahan. Larvae and adults of *A. atlas* were reared under nearly natural conditions on a host plant (*Sandoricum koetjape*) at temperature 21-29 °C, 52-91% relative humidity (RH). The result showed that life cycle from egg to adult lasted 58-95 days (egg 8-9 days; 1st instar larva 3-6 days; 2nd instar larva 3-8 days; 3rd instar larva 4-11 days; 4th instar 4-10 days; 5th instar larva 17-18 days; pupa 14-24 days; male adult stage 5-9 days and female adult stage 6-7 days). Under natural condition, the atlas silkworm has been cultured with complete life cycle. Fresh female cocoon (2.83 x 5.91 cm) was bigger than average fresh male cocoon (2.66 x 5.63 cm). In addition, body size and wing width of female adult were larger than those of male adult. In preliminary comparison among principle and 4 alternative food plants i.e. Santol, Dala, Guava and Mahoganees on the rearing suitability with *A. atlas*, it revealed that the silkworm cultured on Santol could complete its life cycle, while on Dala it developed until 5th instar, Guava ended to 3rd instar. Mahoganees was not applicable for fagara silkworm rearing.