

0.508±0.239, 0.688±0.321 และ 0.369±0.179 ตามลำดับ ในช่วงที่ 3 ต้องพิจารณาจากค่าที่คำนวณจาก ความแปรปรวนจากพ่อและแม่ใหม่ มีค่า 0.556±0.204, 0.580±0.211, 0.649±0.231 และ 0.666±0.249 ตามลำดับ ค่าดังกล่าวอยู่ในระดับปานกลาง คือมีค่าตั้งแต่ 0.310±0.165 ถึง 0.688±0.321

Breeding of Silkworms to improve the quantitative characters, it is necessary to have an index in order to guide the decision of selection. This index is called "heritability (h^2)". If h^2 is high, selection will succeed within the population. On the other hand, at a low or moderate level, it is to consider the heterosis. The purpose of this study is to estimate the h^2 of the polyvoltine silkworms over three generations. The full-sib analysis in nested design was tested. The parents of 5 males and 15 females were conducted, each male breeding with 3 females.

Heritabilities for a single cocoon weight and shell weight of a female and a male were analyzed by dam's variance. The h^2 of the first generations were 0.396±0.273, 0.402±0.281, 0.599±0.372 and 0.403±0.287 respectively. The second generations were 0.310±0.165, 0.508±0.239, 0.688±0.321 and 0.369±0.179 respectively, In the third generations, analyzed by variance of sire and dam component, the h^2 were 0.556±0.204, 0.580±0.211, 0.649±0.231 and 0.666±0.249 respectively. According to this particular study, it can be concluded that all the h^2 levels were moderate, from 0.310±0.165 to 0.688±0.321.