

Inheritance of resistance in cowpea (*Vigna unguiculata*) to the pod-sucking bug *Clavigralla tomentosicollis* (Hemiptera: Coreidae)

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Abstract

Inheritance of resistance in cowpea to *Clavigralla tomentosicollis* Stål was studied on F₁, F₂ and F₃ generations produced from crosses made between Ife Brown, a susceptible cultivar (PS), and TVu 3354, a resistant variety (PR), on the pods of which freshly emerged nymphs of *C. tomentosicollis* were caged. Nymphal weight gain was significantly higher ($p < 0.05$) on PS. There were no significant differences between the weight gains of nymphs that fed on F₁, F₂ and F₃ pods. Insect mortality was significantly higher on PR (86.7%) and the F₂ (70.0%) generation. Total nymphal development period was significantly longer on PR (15.0 days) while that on F₁ and F₂ generations was significantly longer than on the F₃ generation. Nymphal survival and adult emergence were observed on eight plants out of 60 and 19 plants out of 80 from the F₂ and F₃ generations, respectively. Broad-sense heritability estimates were 90.3% and 94.3% for the F₂ and F₃ generations, respectively. The results clearly indicated that TVu 3354 has highly heritable resistance to *C. tomentosicollis*. Copyright © 2008 John Wiley & Sons, Ltd

Keywords:

Clavigralla tomentosicollis; cowpea; pod-sucking bug; resistance; *Vigna unguiculata*