SUSCEPTIBILITY OF LOCAL COWPEA (VIGNA UNGUICULATA L. WALPERS) CULTIVARS TO CALLOSOBURCHUS MACULATUS INFESTATION IN STORAGE

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ABSTRACT
Cowpea, Vigna unguiculata L. is an extremely valuable crop both as a source of revenue and as an important source of cheap, dietary protein for the third world. The storage of cowpea is consistently threatened by the cowpea bruchid, Callosobruchus maculatus, which reduces the quantity and quality of cowpea in storage. The objective of the experiment was to assess the resistance of seven local cowpea cultivars to C. maculatus infestation in storage. The experiment was conducted as a completely randomized design replicated four times. The results showed that the number of eggs laid, adult progeny development and percentage seed damage, severity of damage and susceptibility indices varied significantly (P<0.05) among cowpea cultivars. Borno white or TVx 3236 was infested significantly (P<0.05) more by C. maculatus than Peugeot, Kanannado or IAR 48. Borno white sustained the highest (76.9%) level of seed damage but the lowest were recorded in Peugeot, Kanannado and SAAD. Severity of seed damage ranged from 1.0 in Peugeot to 2.5 in Borno white. Susceptibility indices were 21.4, 8.0, 13.1, 21.4, 18.9, 18.5 and 19.5 for Borno white, Peugeot, Kanannado, TVx 3236, SAAD, IAR 48 and Borno brown, respectively. Cultivars which combine resistance to bruchid infestation with high-yielding characteristics such as Peugeot and Kanannado offer great benefits to subsistence farmers in the savanna region of Nigeria. The cultivation and promotion of these cultivars amongst farmers may be a major step to reduce infestation of their grains by the bruchid.

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