



**Influence of *Callosobruchus maculatus* Fab. on the physiological quality of cowpea genotypes (*Vigna unguiculata* (L.) Walp.)**

**Influência do *Callosobruchus maculatus* Fab. na qualidade fisiológica de sementes de genótipos de feijão-caupi (*Vigna unguiculata* (L.) Walp.)**

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The infestation of cowpea seeds starts in the field and increases in the warehouse, being able to destroy wholly the seeds. It was aimed evaluate the physiological quality of 10 genotypes on the basis of the infestation by *Callosobruchus maculatus*. The study was carried out in a natural environment (temperature  $28 \pm 5$  °C and relative humidity  $63 \pm 10\%$ ) in Boa Vista-RR. Seeds from BRS Amapá, BRS Novaera, BRS 17-Gurguéia, BRS Mazagão, BRS Milênio, BRS Paraguaçu, Patativa, BRS Guariba, BRS Marataoã and Guará were utilized. The dry mass and moisture were measured by taking five samples of 100g of each genotype, 4 for infestation and one control, packing them in plastic flasks. The infestation was carried out with 20 adult insects, keeping them for seven days. After 65 days from the infestation, the samples were purged; the wholeness and the physiological quality of the seeds were evaluated, the moisture, germination and vigor of the seeds (before the infestation and after emergence of insects); initial and final mass of the seeds. The results obtained showed increased moisture of the seeds from 7.2% to 13.2%. In the infested seeds, moisture increased to 17.4%, which can be contributed to the reduction of germination and vigor of seeds. Genotypes Amapá, Marataoã and Gurguéia presented best initial values of vigor (76%) and germination higher than 82%. Significant reduction in both vigor (30%) and germination (33%) was found. These results demonstrate the destructive capacity of that insect in cowpea seeds in natural environment of Boa Vista.

**Keywords:** Weevil, seed vigor, stored seeds.

**Acknowledgments:** Embrapa Roraima.