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Patterning of cowpea (Vigna unguiculata) production: study focused on the quality of seeds

Padronização da produção de feijão-caupi (*Vigna unguiculata*): estudo centrado na qualidade de sementes

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Germination test is the official procedure to evaluate the capacity of seeds to produce normal seedlings under favorable conditions, but not always present performance differences among seed lots, which can show up during storage or in field. It was intended in this study to characterize seeds of 15 cowpea lines collected in two periods concerning physical and physiological qualities. Seeds were produced at Agua Boa Experimental Field, belonging to Embrapa Roraima. After hand harvesting and pod treshing, seeds were carried to Embrapa Roraima's Seed Analysis Laboratory and subjected to evaluations of one thousand seed mass, water content, electric conductivity and germination. The experimental design utilized was completely randomized in a factorial scheme 15x2, with four replications. Seeds obtained at the first harvest (PC) presented one-thousand seed mass, ranging from 171.57 to 210.75 g with moisture of 10.91 to 10.26% for the erect-habit lines and from 174.39 to 217.73 g with moisture of 9.4 to 9.52% for prostrate-habit lines, respectively. Concerning the second harvest (SC), 30 days after the first harvest, the values of one-thousand seed mass and moisture were 1.5% lower than the first harvest. However, germination percent of seeds at first harvest (PC) was three to six times higher than at second harvest (SC). Lines both with erect and prostrate habit are more sensitive to harvest period, showing lower germination percent and poorer vigor, observed in the electric conductivity test, relative to first harvest.

Keywords: Storage, harvest, seed vigor.

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