Controlled management of seed and good performance on germination and seedling initial growth of cowpea

Manejo controlado da semente e o sucesso da germinação e crescimento inicial de seedlings de feijão-caupi

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Cowpea is a protein high content legume, and its cultivation in the latest years has been reaching greater economic expression and occupying area of more than 12 million hectares all over the world, encompassing all regions with tropical climate. Its fast expansion in the last decades has enabled most pathogens to be spread to all the cowpea-producing regions, mainly through the seed, the major vehicle of dissemination and introduction into new growing areas. Considering the importance of cowpea crop and the need to add information on obtainment of healthy seeds, the main objectives of this study were the evaluation of different times and effects of treatments with sodium hypochlorite and antifungal products on seeds of five cowpea cultivars as well as their initial growth. The experimental design was randomized blocks with three replications in a 5x5x2 factorial scheme of 5 cultivars ('BRS Guariba', 'BRS Novaera', 'BRS Tumucumaque', 'BRS Cauamé' and 'BRS Xiquexique'), 5 antifungals (fludioxonil, carbendazim, carbendazim + tiram, carboxin + tiram and control), and with or without hypochlorite. 'BRS Cauamé' seeds treated with the fungicide derosal plus not disinfested with hypochlorite presented emergence values 34% higher than those disinfested with hypochlorite. 'BRS Novaera' presented emergence value below 1% when disinfested with sodium hypochlorite. Independently of utilization of seeds stored for 120 days or freshly harvested, the maximum germinating power, vigor and seedling dry mass was recorded by seeds not disinfested with sodium hypochlorite.

Keywords: *Vigna unguiculata*, fungicides, germinating potential.

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