THE EFFECT OF THERMAL TREATMENTS ON SEED GERMINATION OF *Manihot esculenta* ssp. *esculenta* CULTIVARS

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Seeds of *Manihot esculenta* ssp. *esculenta* cultivars: BGMC 259 (CM - 425/5), BGMC 279 (CM - 424/11), BGMC 298 (SM - 82/1), BGMC 303 (EAB - 646), BGMC 305 (EAB - 653), BGMC 446 (clone CPAC 42), BGMC 463 (clone 264), BGMC 751 (japonês), BGMC 774 (sulista) and BGMC 898, from Embrapa Cerrados, were submitted to thermal treatments which aimed at improving and accelerating germination. The seeds were exposed to -20°C and -196°C for three days and to 45°C in silica gel for five days, afterwards were sowed in vermiculite and incubated at laboratory temperature (25 ± 4°C). Seeds, which did not produce normal seedling development, were submitted to viability tests (solution of Tetrazolium 1%) after one year. The results of thermal treatments applied did not differ significantly within each cultivar. However, the final germination percentages differed significantly ($P < 0,0001$) among cultivars. The highest germination percentages (from 75% to 93%) were observed for cultivar BGMC 305 (EAB 653) while the lowest values (from 5% to 25%) were recorded for cultivar BGMC 898. The percentages of viable seeds among cultivars ranged from 23% to 83%. The results suggested that thermal treatments did not enhanced germination. In addition, dormancy intensity was more pronounced among cultivars than within each cultivar.

Key words: Germination, dormancy, viability