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ESTABLISHING THE OPTIMAL TEMPERATURE RANGE FOR GERMINATION IN ARRACACHA (*ARRACACIA XANTHORRHIZA* BANCROFT)

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Abstract

Arracacha seeds from southern Minas Gerais were tested at the EMBRAPA Seed Laboratory, to determine the optimal germination temperature. Seeds were classified by weight into two groups of 1200 seeds each, and treated with iprodione. The experiment had a randomized complete block design, with four replicates of 50 seeds each. The substrate was filter paper, and temperature treatments were 10, 15, 20, 25, and 30 °C. The treatments were applied in a temperature gradient chamber (NK System TG-100-AD) and in a germination chamber (Percival) with alternated 20/30 °C temperatures. Seeds were considered germinated once the radical emerged, which, on the average, started at 11 days. Countings were done every 7 days until day 53. The optimal temperatures for germination were 20 and 25 °C, with 60% and 55% of the medium-sized seeds germinating and 47% and 40% of the large size, respectively. Maximum germination for the treatments 10, 15, and 30 °C at the end of the experiment ranged from 13%-55%. The treatment of alternated temperatures (20/30 °C) resulted in only 22% germination.

Note: This manuscript was incomplete (copies of the figures were mislaid)

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