

Title Storage and physiological quality of cotton seeds submitted to osmotic conditioning
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Abstract

The objective of this work was to evaluate the behaviour of cotton (*Gossypium hirsutum*) seeds subjected to osmotic conditioning and storage. Fiscalized cotton seeds of the cultivar IAC-20, linted or delinted with sulfuric acid, were utilized. Part of the seeds was submitted to osmotic conditioning by submerging in mannitol solution (-0.4 Mpa for seeds linted seeds and -0.6 Mpa for delinted seeds) for a period of 12 hours at the temperature of 20 deg C. Subsequently, the seeds were washed and dried to a moisture degree of 11%. The evaluation of the physiological quality of seeds was accomplished through tests of germination, accelerated aging, bed emergence (stand at seven days) and electric conductivity before and after storage for six months. It was verified that osmotic conditioning was not promising in improving the physiological capacity of seeds and that the linted and osmotically conditioned seeds did not undergo pronounced deterioration compared with the conditioned ones.