

STUDY OF *SOPHORA JAPONICA* SEED RESERVES MOBILIZATION DURING GERMINATION

Crisóstomo, C.V.¹, Sousa, J.C.², Galão, M.I.², Bezerra, G.P.¹ Moreira, R.A
Vitorino, M.M.F.¹

¹ DBBM-UFC · ² DB-UFC

Sophora japonica is a leguminous tree (Faboidae) commonly used in chinese medicine. The main purpose of the present paper was to analyse, by light microscopy, the morphological aspects of the *Sophora japonica* seeds, during germination. The seeds were let to germinate in sterilized moist filter paper (in Petri dishes) until 8 days. The material was then fixed with 1% glutaraldehyde and 4% paraphormaldeyde, dehydrated in ethanol and included in resin blocks. The cuts (5 µm) were let to react with Toluidine Blue as metachromatic stain, to detection polyanionic pectins, Xylidine Ponceae for the detection of total cationic radicals and periodic Acid-Schiff reagent (PAS) for polysaccharide. The *Sophora japonica* seeds shows a tegument formed by palisade and sclereide layers, where, during the whole process, the presence of pectin was detected by the reaction with toluidine blue. This presence was also detected in the cotyledons and endosperms. Proteins were detected, by the reaction with xylene ponceau, both in the cotyledons and endosperms, The disappearance of the globular aspect during the process (from the 2nd and 4th day for the cotyledons and endosperm, respectively), suggest a possible protein mobilization. On the other hand, the endosperms cells showed an intense magenta color, due to the reaction with Peirodic acid Shiff, suggesting the presence of a high amount of carbohydrate.

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