

Seed Priming Treatments in Common Zinnia (*Zinnia elegans*) Using Some Plant Extracts

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Abstract : Seed priming technologies are frequently used nowadays to increase the germination potential and stress tolerance of seeds. These treatments might be beneficial for native species as well as crops. Different priming treatments can be used depending on the type of plant, the morphology, and the physiology of the seed. Moreover, these may be various physical, chemical, and/or biological treatments. Aiming to improve studies about seed priming, ideas need to be brought into this technological sector related to the agri-seed industry. This study addresses the question of whether seed priming with plant extracts can improve seed vigour and germination performance. By investigating the effects of plant extract priming on various vigour parameters, the research aims to provide insights into the potential benefits of this treatment method. Thus, seed priming was carried out using some plant extracts. Firstly, some plant extracts prepared from plant leaves, roots, or fruit parts were obtained for use in priming treatments. Then, seeds of Common zinnia (*Zinnia elegans*) were kept in solutions containing plant extracts at 20°C for 48 hours. Seeds without any treatment were evaluated as the control group. At the end of priming applications, seeds are dried superficially at 25°C. Seeds of Common zinnia (*Zinnia elegans*) were analyzed for vigour (normal germination rate, germination time, germination index etc.). In the future, seed priming applications can expand to multidisciplinary research combining with digital, bioinformatic and molecular tools.

Keywords : seed priming, plant extracts, germination, biology

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