

Title Application of bioactive coatings based on chitosan for artichoke seed protection
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Abstract

Artichoke seeds suffer attacks of various fungi that result in a decreased yield. Coatings based on chitosan were used as an antifungal agent and for enhancing the germination and quality of artichoke seeds. The effect of formulation (chitosan molecular weight, presence or absence of Span 80, pH), and thickness (number of coating layers) on seed germination (G%), fungi activity and vegetative growth were studied. Results indicated significant differences between treatments on seed germination. It was observed that all chitosan treatments reduced the number of type of fungi and increased plant growth. Chitosan with lower Mw gave better results both from microbial and germination point of view. In addition results indicated that treatments including chitosan and TMTD increased significantly G% and plant growth of artichoke seeds and produced a decrease in fungi contamination.