VALORIZATION OF WASTEWATER FROM *SPIRULINA PLATENSIS* CULTIVATION AS A BIOLOGICAL STIMULANT FOR THE GERMINATION OF *GALEGA ORIENTALIS* L. SEEDS PRESERVED IN COLLECTIONS

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Abstract

The article presents the experimental results obtained from applying a biostimulant based on residual water from the cultivation of the alga Spirulina platensis on the germination of *Galega orientalis* seeds maintained in collection conditions for 2, 3, and 4 years. The results show that seeds treated with biostimulants exhibit a higher germination capacity than those in the control group, where germination ranged between 27-33%. The highest germination rates were obtained for the 4-year-old seeds (60%) and 3-year-old seeds (47%) treated with biostimulant concentrations of 2% and 4% for 2-4 hours. Moreover, the germination index is significantly higher in the treated seeds, reaching maximum values of 12 and 8.6 for the 4- and 3-year-old seeds, respectively, compared to the control group values (5,4-6,6). The relative root elongation was greater in the 2-year-old seeds treated with a 1% biostimulant, but for the older seeds (3-4 years), the 2% concentration applied for 4 hours yielded the best results. The 4% concentration showed stability, although with a smaller root elongation compared to the lower concentrations. In conclusion, the 2% biostimulant applied for 2-4 hours is the most effective for stimulating germination and root growth in the older seeds of *Galega orientalis*.

Key words: biostimulants, *Galega orientalis, Spirulina platensis*, wastewater.