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VALORIZATION OF WHEY FROM DAIRY INDUSTRY FOR AGRICULTURAL USE AS FERTILISER: EFFECTS ON PLANT GERMINATION AND GROWTH

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Abstract

In the present paper, the possibility of direct valorization of whey as fertilizer was investigated. For this study, the experiments were carried out on three species of plants: broccoli (*Brassica oleracea* L., var *botrytis*, subvar. *cymosa*), wheat (*Triticum aestivum* L.) and soy (*Glicine max* (L) Merr). The germination capacity of seeds, the pot development phase and the accumulation of the fresh and dry biomass were analyzed. The results obtained in the case of the three studied species suggested the positive effect of whey addition during cultivation. The extraction of plant material was carried out by both classical methods and under microwaves. The preliminary results of thin layer chromatography (TLC) and UV-VIS spectroscopy analyses of the extracts confirmed the positive influence of whey on plants development, encouraging further research.

Key words: fertilizer, germination, growth plant, whey valorization

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