A KÖRNYEZETTUDATOS PALÁNTANEVELÉS TULAJDONSÁGAI ÉS OPTIMALIZÁLÁSA A TERMESZTÉSI GYAKORLAT SZÁMÁRA

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ABSTRACT – Features and practical improvements of environment supporter seedling production.
According to current regulations of Hungarian organic controller organizations, the organic farmer has to use organic seeds and produce organic seedlings for organic vegetable growing. These producers have two basic difficulties in growing: right mediums or substrates for transplants and correct plant protection. The aim of this research is to get favoring of knowledge of first difficulty for organic seedling production. The medias, as important factors of organic seedling rearing, are right soil mixes or agents, and the adequate supply of nutrients, because utilization of chemical fertilizers is forbidden. Accordingly an important target of research is finding suitable ecological soil-mix or agents for practice of organic seedling growing.
The experiment series was started in September of 2007 with a pre-experiment wich continued in May of 2008 and last prosperous experiment was stood up in September of 2008 at Soroksár Experimental Farm of Corvinus University of Budapest Dep. of Vegetable and Mushroom Growing. Authors prepared soil-mixes and these were compared with conventional medium. In the experiment transplants were grown on polystyrene trays with 96 cells (cells size is 5x5cm), and 1 tray was calculated to two parcels (1 parcel included 48 seedlings). The authors used 3 mixtures and three kinds of treatment as followed: 1 – ControlA (DOMOFLOR peat media with chemical fertilizer treatment); 2 – KM30 (mix of coco fibers and cow manure compost (30%) with no further treatment); 3 – TM30 (mix of white peat and cow manure compost (30%) with no further treatment); 4 – ContorlB (DOMOFLOR peat media with chemical fertilizer and Hums FW treatment) 5 – KM30-H (mix of coco fibers and cow manure compost (30%) with Hums FW treatment); 6 – TM30-H (mix of white peat and cow manure compost (30%) with Hums FW treatment). Furthermore every each media was mixed with hydrated lime ($Ca(OH)_2$) in 5% ratio. For experimental plant the lettuce (*Lactuca sativa 'Capua'*) was chosen, because it can be good indicator that means lettuce is sensible to small changes of environment (substrate, nutrients, water, temperature, etc.). Authors fulfilled test of germination, test of utilization of sunlight (with SPAD chlorofill meter), and executed measurements of seedling parameters (fresh and dry weights of shoots and roots, diameter of stem, height of seedling).
The following conclusions could determine from results: Significant differences of intensity and amount of germination weren't observable. In point of counted germination, parameters of seedlings, and measured SPAD, the results displayed similar or better quality than recorded plants gave from the control treatments.
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