COMPARATIVE STUDY OF THE USE OF VARIOUS PEAT SUBSTRATES, IN NURSERY HORTICULTURE, AT SPRING- SUMMER PRODUCTION TIME

ABSTRACT

The utilization of five commercial substrates of peat in the production of horticulture plants in nursery was studied. The trial was conducted in an acclimatized nursery during April and May, using trays of 128 alveolus each.

The following substrates were used: PROFESSIONAL LEVIGTON F1 (S1), SHAMROCK SUBSTRAT Nº1 (S2), FINNPEAT C1 (S3), P4 (S4) and FP100 (S5). Some physical and chemical properties of the substrates were analyzed and their effects on the quality of lettuce (*Lactuca sativa* L. – cv. "Dourada de Primavera") and tomato (*Lycopersicon esculentum* Mill. – cv. "Alexandros") at transplantation time.

In lettuce, the following parameters were analyzed: number of leaves, leaf area and roots, leaves and plants dry weight. In tomato we also analyzed: stems length and diameter and stems dry weight.

The best quality to transplant in lettuce plants was obtained in S2 and S4. On the contrary, S3 has limited the growth of this specie. Substrates characteristics more related with plants quality were those related with air-water availability, organic matter and electrical conductivity.

In tomato the best quality was obtained with S4. However, these results haven´t been related with the substrates characteristics. Plants produced in remain substrates were very similar.

From the substrates studied we would exclude S1 due to economical reasons.