

ABSTRACT

EFFECT OF DIFFERENT POT SIZES AND GROWING MEDIA ON SEEDLING QUALITY IN ASPARAGUS (*Asparagus officinalis* L.) CULTIVATION

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The aim of this study is to find out the most suitable growing medium and seedling pot size to improve seedling quality of asparagus (*Asparagus officinalis* L.).

The field trial was established in the experimental field and laboratory of the Department of Horticulture, Faculty of Agriculture, Adnan Menderes University, Aydın. Marry Washington asparagus cultivar was used for the experiment. Some combinations of turba, perlite, farm manure, sand and garden soil (with 1:1:1 ratio) were used as growing medium to determine the effect of growing media on seedling quality. And three different pot sizes (7.5x9.0cm, 6.5x7.0cm ve 4.5x5.0cm) also used to determine the effect of pot size on on seedling quality. Stem length, root length, stem fresh and dry weight, root fresh and dry weight, number of branches and stem diameter were measured. According to the result, the medium with 1:1:1 ratio of Farm manure – Perlite – Garden soil gave the best result. The big pot size with 7.5x9.0cm was the best pot size. Pre-soaking in tap water for 48h treatment gave the highest germination ratio.

Key words: *Asparagus officinalis* L., pre-soaking, growing medium, pot size, seedling quality