

林学—研究报告

适宜君迁子出苗及生长的育苗基质研究

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摘要:

利用无纺布容器育苗技术,研究不同配比基质对君迁子出苗及生长的影响,探讨基质理化性质与出苗及生长的相关性,并采用因子分析法寻求适宜君迁子容器育苗的最佳基质。结果表明:处理1(V泥炭:V珍珠岩=3:1)、处理2(V泥炭:V珍珠岩=2:1)和处理7(V泥炭:V蛭石:V珍珠岩=6:1:1)的出苗率最低,均为95.8%,处理4(V泥炭:V蛭石=3:1)、处理5(V泥炭:V蛭石=2:1)和处理6(V泥炭:V蛭石=1:1)的出苗率达100%。多重比较结果表明,处理3的株高和地径均为最低,而处理4、处理6的株高显著高于其他处理,处理4、处理6和处理7的地径显著高于其他处理,处理4和处理6的地上部生物量和地下部生物量相对较高,其地上部鲜重分别达到了69.28 g和72.67 g,地下部鲜重达34.36 g和34.13 g,而处理3(V泥炭:V珍珠岩=1:1)和处理5处理的生物量最低。君迁子的出苗、生长及壮苗指数与基质的各理化指标相关性并不显著。因子分析结果和壮苗指数结果并不完全相同。因子分析法综合评价不同基质君迁子的育苗效果是适宜的,结果表明,处理6为君迁子容器育苗最佳配比基质,其次为处理4和处理7,处理3综合效果最差。

关键词: 理化性质

Study about the Suitable Seeding Container Substrate of Diospyros lotus Emergence and Growth

Abstract:

Effects of different container nursery substrate on emergence and growth of Diospyros lotus seedlings were studied by cultivation shaping of non-woven fabrics technique. Besides, we valuated the nursery effect of different container substrates by factor analysis method in order to search for the suitable seeding container substrate in Diospyros lotus cultivation seedlings. Diospyros lotus emergence rate in the first treatment (Vpeat : Vpearlite=3 : 1), the second treatment (Vpeat : Vpearlite=2 : 1) and the seventh treatment (Vpeat : Vvermiculite : Vpearlite=6 : 1 : 1) was significant lower than other treatments being 95.8%, respectively. However, Diospyros lotus emergence rate of the fourth (Vpeat : Vvermiculite=3 : 1), the fifth (Vpeat : Vvermiculite= 2 : 1) and the sixth (Vpeat : Vvermiculite=1 : 1) treatment was 100%. Multiple comparison results showed that seedling height and ground diameter of Diospyros lotus in the third treatment was the lowest in all of the treatments, while the fourth treatment and the sixth treatment were higher than others. Ground diameter of Diospyros lotus in the fourth, sixth, and the seventh treatment were higher than other treatments. While the biomass in the fourth treatment and the sixth treatment were higher than others, being 69.28 g and 72.67 g of above ground part biomass, 34.36 g and 34.13 g of under ground part biomass, respectively. Biomass in the third (Vpeat : Vpearlite=1 : 1) and the fifth treatment were the lowest in all the treatments. The correlative coefficients between substrate physicochemical property and the growth of Diospyros lotus seedlings were not significant. Result of factor analysis and healthy seedling index was not coincident. Factor analysis method was suitable for valuation on the nursery effect. Result showed that the sixth treatment was the best compound substrate for Diospyros lotus cultivation, next came the fourth and the seventh treatment, while the third treatment was the worst in all the treatments.

Keywords: physicochemical property

收稿日期 2011-03-14 修回日期 2011-04-19 网络版发布日期 2011-08-01

DOI:

基金项目:

“十一五”国家科技支撑计划重大专项

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