



遮阴对基质育苗裸苗移栽棉花苗期生长的影响

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Responses of Growth in the Seedling Period of Transplanted Cotton to the Shading Treatment

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摘要 通过不同程度的遮光处理来研究基质育苗移栽棉花苗期生长发育的变化, 结果表明: 在缓苗期内不同遮光处理对叶片可溶性糖和淀粉含量影响较大, 缓苗期过后4个处理二者变化趋势基本一致, 但是各个处理间存在一定差异: SOD酶和POD酶活性均呈现先增加后下降然后趋于稳定, 不遮光处理2种酶活性要高于遮光处理; 缓苗期过后, 遮光处理的单株叶面积、鲜物质质量、干物质质量、株高均高于对照, 本试验中以遮光2层效果最好。说明一定程度的苗期遮阴可以缓解基质育苗移栽棉花所处的相对逆境, 有利于棉苗生长发育。

关键词: 棉花 苗期遮阴 缓苗期 生理生化 农艺性状

Abstract: This study was to investigate changes of substrate seedling transplanted cotton in seedling period under different shading treatments. The results showed that: during the recovering stage, the soluble sugar content and starch accumulation capacity of different shading treatments has been great influenced significantly. After recovering-stage, the change trend of soluble sugar content and starch accumulation capacity was broadly the same, but there were certain differences in different treatments. SOD activity and POD activity were all going up during the recovering-stage, and then decreasing to a steady level. The SOD activity and POD activity of shading groups were lower than the control treatment. After recovering-stage, the leaf area, fresh weight, dry weight and plant height of shading groups were larger than those of the control treatment. The degree of shading during seedling period can alleviate the relative adversity that the substrate seeding-raising transplanted cotton located and be beneficial to the growth and development of cotton seedlings.

Keywords: cotton shading during seedling period recovering stage physiological and biochemical agronomic traits

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