

园艺园林科学

两种黄瓜砧木(南瓜)幼苗对NaCl胁迫的渗透调节响应

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摘要:

摘要: 以两种黄瓜砧木中国南瓜(*Cucurbita moschata*)杂交种“360-3×112-2”和黑籽南瓜(*C. ficifolia*)的幼苗为试材, 在营养液培养的条件下进行80mmol/L-1 NaCl胁迫, 研究了南瓜幼苗的生长、相对含水量、各器官的渗透势和叶片中渗透调节物质含量的变化。结果表明, NaCl胁迫后, 两种南瓜幼苗的生长显著受到抑制, “360-3×112-2”幼苗的耐盐性比黑籽南瓜强, “360-3×112-2”幼苗的相对含水量降低较少, 各器官的渗透势降低较多, 叶片中渗透调节物质含量增加较多。较高的耐盐性与它具较强的渗透调节能力有关。

关键词: 渗透调节

Response of osmotic adjustment of two cucumber rootstock seedling (*Cucurbita* spp.) to NaCl stress

Abstract:

Abstract: The growth, relative water content, osmotic potential of all organ, contents of osmoregulation substance including proline and soluble sugar in leaves of two cucumber rootstocks, such as *Cucurbita moschata* hybrid '360-3 × 112-2' and *C. ficifolia* seedlings were studied in hydroponic adding 80mmol/L-1 NaCl. The results showed that the growth of two tested materials seedling were inhibited significantly after 7 days under NaCl stress, salt tolerance of '360-3×112-2' hybrid seedlings was higher than *C. ficifolia*, and decrease of relative water content was less, decrease of osmotic potential of all organ was more, increase of osmoregulation substance contents in leaves was more than that of *C. ficifolia* seedling. Those results can be concluded that the higher salt tolerance of '360-3×112-2' hybrid under NaCl stress than *C. ficifolia* was closely related to its stronger osmotic adjustment ability.

Keywords: osmotic adjustment

收稿日期 2009-11-06 修回日期 2009-11-24 网络版发布日期 2010-03-20

DOI:

基金项目:

河南省重点科技攻关计划资助项目;河南科技学院2008年高层次人才科研项目

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