

植物生理科学

NaCl胁迫下氮对马铃薯的调控作用

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摘要:

摘要: 以紫花白为试验材料, 采用组织培养方法, 在离体条件下研究了NaCl胁迫下氮素对马铃薯生理生化特性的影响。主要试验结果如下: NaCl胁迫下马铃薯叶片脯氨酸含量、叶绿素含量、可溶性蛋白含量及根系活力随氮水平的增加表现为先增加后降低的趋势, 在4.17 (N2) mmol/LNH4NO3水平下达到最大值, 其中叶绿素含量、可溶性蛋白含量及根系活力在N2水平下显著的高于对照; NaCl胁迫下马铃薯叶片SOD和POD的活性随氮水平的增加逐渐上升, 且在6.25 (N3) mmol/LNH4NO3水平下达到最大值。

关键词: 耐盐相关生理特性

Study Nitrogen on Regulation of Potato Under NaCl Stress

Abstract:

Abstract: Zihuabai was used to do an experiment which researched the effects of nitrogen on physiological and biochemical characteristics of potato under NaCl stress in vitro. The results showed: the content of praline、 chlorophyll、 protein and root activity performed increasing at first, then decreasing with the increase of nitrogen level, and reached the top in 4.17 (N2) mmol/L NH4NO3 level. The content of chlorophyll、 protein and root activity were significantly higher than that of the contrast in N2 level; The activity of SOD and POD increased generally under NaCl stress with the increase of nitrogen level, and reached the top in 6.25 (N2) mmol/L NH4NO3 level.

Keywords: physiological and biochemical characteristics

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