

研究论文

## 外源AsA对盐胁迫下水稻叶绿体活性氧清除系统的影响

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**摘要** 研究了外源AsA对盐胁迫下不同耐盐性水稻品种Pokkali (耐盐) 和Peta (盐敏感) 叶绿体中活性氧清除系统的影响。结果表明: 盐胁迫下, 外源AsA能提高不同耐盐性水稻品种叶绿体中SOD、APX、GR活性, 增加叶绿体内AsA和GSH含量, 减少H<sub>2</sub>O<sub>2</sub>和MDA含量, 提高叶绿体中活性氧的清除能力。在盐胁迫或同时加入AsA条件下耐盐品种Pokkali叶绿体中AsA含量均比盐敏感品种Peta高出40%。说明AsA可以防止盐胁迫下类囊体膜脂的过氧化。

**关键词** [盐胁迫](#) [水稻](#) [叶绿体](#) [AsA](#) [活性氧清除系统](#)

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## Effect of Exogenous Ascorbic Acid on Active Oxygen Scavenging System in Chloroplasts of Rice under Salt Stress

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**Abstract** With ascorbic acid (AsA) treatment, the changes of antioxidant system in chloroplasts of rice cultivars (Pokkali, salt-tolerant and Peta, salt-sensitive) under salt stress were studied. The results showed that the activities of SOD, APX, GR and the contents of AsA, GSH in chloroplasts of two rice cultivars with AsA treatment under salt stress were increased, while the contents of H<sub>2</sub>O<sub>2</sub> and MDA decreased. The ability of active oxygen scavenging in chloroplasts of rice was enhanced by treating with AsA. Under salt stress and with AsA treatment, AsA content in chloroplasts of cv. Pokkali was 40% higher than that of cv. Peta. It is suggested that AsA contributed to the protection of thylakoid membrane lipids against oxidation in salt-stressed rice.

**Key words** [Salt stress](#) [Rice](#) [Chloroplast](#) [AsA](#) [Active oxygen scavenging system](#)

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