



野生稻材料中氨基酸、碳、氮含量分析及其在种质资源评价中的应用

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The content analysis of amino acids, carbon, nitrogen in wild rice and their application on assessment of crop germplasm resources

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摘要 野生稻是宝贵的遗传资源库. 云南有较丰富的野生稻资源, 研究对云南及其它来源的野生稻和栽培稻茎、叶和稻米中氨基酸含量及碳、氮含量进行了分析. 结果表明: 所涉及的几种材料中茎叶内总氨基酸质量比差异较大, 小粒野生稻最高56.8 mg/g, 野生的元江普通野生稻最低22.8 mg/g. 换算的C/N和蛋白质质量分数变化范围分别为12~38和6%~20%. 对野生稻茎、叶和相应的稻米中氨基酸总量及氨基酸组成间的相关性进行了分析, 发现两者具有显著相关性. 并初步探讨了茎、叶中氨基酸含量在评价植物种质资源评价中的应用.

关键词: 野生稻 氨基酸 C/N

Abstract: Wild rice is important heritable material. There are abundant wild rice in Yunnan province. The contents of amino acids, carbon and nitrogen of a few kinds of wild rice and cultivated rice's stem, leaves and seeds were analyzed. The results showed that there were obvious differences in total amino acid content among the concerned materials. *Oryza minuta* has the highest content, 56.8 mg/g. Wild field collected Yuanjiang type of *Oryza rufipogon* has the least content, 22.8 mg/g. The variation of calculated C/N ratio and protein content were within 12—38 and 6%—20% respectively. The relativity of the contents and components of amino acids in wild rice tissues and seeds were also analyzed. We found that the amount of amino acids in plant tissues can reflect that of seeds, to some extent. The application on assessment of tissue amino acids and C/N ratio in plant germplasm resources were also discussed.

Key words: wild rice amino acid C/N ratio

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