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研究简报

非AA型野生稻叶绿体DNA籼粳特性研究

张武汉[1,2] 邓华凤[1,2,3] 陈良碧[4] 何强[1] 舒服[1,2] 陈觉梁[4] 袁隆平[4]

[1]国家杂交水稻工程技术研究中心,长沙410125 [2]湖南农业大学,长沙410128 [3]天津市水稻工程技术中心,天津300457 [4]湖南师范大学,长沙410081

摘要：

籼粳分化现象广泛存在于亚洲栽培稻（O．sativa）中。大量研究表明，普通野生稻（O．rufipogon）的叶绿体DNA也存在籼粳分化。为进一步探明非AA型野生稻的叶绿体DNA 是否存在籼粳分化现象，利用2个长度多态性籼粳分型标记（ORF100和ORF29-TmC^GCA）对12个非AA型野生稻种的叶绿体DNA进行籼粳特性分析。研究发现，非AA型野生稻叶绿体DNA都呈现偏粳趋势。对叶绿体DNA碱基多态性最丰富的2个区域（rps16基因内含子和TmT^UGU-TmL^UAA间区）进行测序比较，在4个位点的籼粳分型标记中，非AA型野生稻有3个位点与粳型标记一致，1个位点与籼型标记一致，但另有多个位点的碱基与栽培稻不同。研究结果表明，非AA型野生稻叶绿体DNA总体偏粳，但与典型粳稻存在一定遗传差异。推测粳型叶绿体可能为稻属原始类型。

关键词： 非AA型野生稻 叶绿体DNA 分子标记 籼粳特性

Study on Indica-japonica Character of Non-AA Wild Rice Chloroplast DNA

ZHANG Wu-han, DENG Hua-feng, CHEN Liang-bi, HE Qiang, SHU Fu,CHEN Jue-liang, YUAN Long-ping

1.National Hybrid Rice R&D Center, Changsha 410125|2.Hunan Agricultural University, Changsha 410128; |3.Tianjing Rice R&D Center, Tianjing 300457|4.Hunan Normal University, Changsha 410081, China

Abstract:

Differentiation of indica-japonica character in O. sativa commonly exists. A great deal of research showed the chloroplast DNA of O. rufipogon also exhibit diversity of indica-japonica character. In order to prove whether the chloroplast DNA of non-AA wild rice shows differentiation of indica-japonicacharacter, this study analyzed the chloroplast DNA of non-AA wild rice using molecular markers for separating indicaojaponica traits. The chloroplast DNA of non-AA wild rice was japonica-type using two length diversity markers （ORF100 and ORF29-TrnCGCA）. Utilizing four sequence markers exited in intrron of rpsl6 gene and TmT^UGU-TmL^UAA spacer, the result of three markers showed that the chloroplast DNA of non-AA wild rice were japonica-type and the result of one marker showed that they were indica-type. It also showed that differentiation existed between the sequence of tested material and the markers, and some mutation has happened. The result show japonicaotype may be the original type of rice chloroplast DNA.

Keywords: non-AA wild rice chloroplast DNA molecular marker indica-japonica character

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通讯作者: 邓华凤(1963一)，研究员，主要从事水稻遗传育种工作。Tel：0731—2872959；E-mail：denghuafeng@sohu．com

作者简介: 张武汉(1980．)|男|湖南祁东人|硕士研究生|研究方向为水稻遗传育种

作者Email:

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