

研究论文

中国江、浙地区栽培大麦遗传资源的RAPD研究

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摘要 采用随机扩增多态性 (RAPD) 标记, 探讨了我国部分栽培大麦品种的遗传背景。结果表明: 200个随机引物中, 有30个引物扩增出的产物具有多态性, 30个引物共扩增出223条谱带, 其中130条谱带具有多态性, 每个引物可扩增出2~9条多态性谱带, 平均4.19条。67个大麦品种平均表型多样性值0.369, 裸麦的表型多样性高于皮麦的表型多样性, 二棱皮麦表型多样性最低, 六棱裸麦表型多样性最高。聚类分析表明, 在遗传距离D值0.6水平上67个大麦品种可聚成四簇, 其中二棱皮麦单独聚成一簇, 六棱裸麦单独聚成一亚簇, 六棱皮麦、四棱皮麦、四棱裸麦混杂分布于其余各簇中, 发现大麦品种根据其品种特性, 表现出一定的聚集趋势, 而抗逆性(抗黄花叶病和耐湿性)却表现出一定的分散性。

关键词 [栽培大麦](#) [RAPD](#) [遗传多样性](#) [聚类分析](#)

分类号 [S512](#)

Genetic Variation Analysis by RAPD of Some Barley Cultivars in China

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Abstract Genetic variation is essential for genetic improvement and plant breeding. 200 arbitrary primers (10-mers) were used for the PCR amplification of random genetic DNA fragments in this study to estimate the genetic variation of 67 barley cultivars in China by RAPD, most of which were derived from the Zhejiang-Jiangsu planting zone. In total 223 bands or 130 polymorphic bands were amplified by 30 primers. Each primer could amplify 2 to 9 polymorphic bands, with an average of 4.19 bands. The value of phenotypic diversity in naked barley cultivars was higher than that of hulled barley cultivars. The lowest phenotypic diversity value was found in 2-rowed hulled barley varieties. Cluster analysis showed that the 67 cultivars could be classified into 4 groups at the level of D 0.6, which evidently showed some variation of some important traits of barley.

Key words [Barley](#) [RAPD](#) [Genetic diversity](#) [Cluster analysis](#)

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