

研究论文

大麦半矮秆品种资源“米麦114”和“尺八大麦”的遗传评价

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摘要 用大麦半矮秆品种资源米麦114和尺八大麦与高秆测验种Bowman杂交的P1、P2、F1、F2及B1和B2六个世代群体为试材, 研究了这两份半矮秆资源株高等性状的遗传规律及其之间的遗传关系。发现它们的半矮生性状均主要受一对隐性基因控制; 千粒重由微效多基因决定, 符合基因的加性——显性遗传模式。米麦114的穗长和穗密度各受一对隐性基因控制; 尺八大麦的这两个性状分别由两对隐性基因决定。在两品种的半矮秆基因与穗长、穗密度和千粒重基因之间存在遗传连锁或相关。它们的小粒、短穗缺点可以通过与互补亲本的杂交而克服, 不失为较好的半矮秆基因源, 建议在育种中利用。

关键词 [大麦,半矮秆,遗传](#)

分类号

Studies on the Inheritance of Several Agronomic Characters of Two Semidwarf Barley genetic Resources, Mimai 114 and Chiba Damai

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Abstract 2 semidwarf genetic resources of barley, Mimai 114 and Chiba damai, were crossed with a tester, bowman, and the P1、P2、F1、F2, B1 and B2 populations were grown to study the inheritance of several agronomic characters. The results indicated that semidwarf plant height was mainly controlled by 1 recessive gene. 1000-grain weight was controlled by multiple minor genes in accordance with the additive dominant model. The spike length and the spike density of Mimai 114 were determined each by a single recessive gene; where as each of these characters Chiba Damai was determined by 2 recessive genes. Linkage existed between plant height and the other 3 characters in both materials, but the disadvantage of small grain and short spike could be overcome through recombination. The value of these 2 genetic resources in breeding program is also discussed.

Key words [Barley](#) [Semidwarf](#) [Inheritance](#)

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