

园艺—研究报告

中国南瓜无蔓性状种间遗传研究

马海龙,智海英,岳青,梁燕平,苗如意

山西省农业科学院园艺研究所

摘要:

为探讨向印度南瓜及美洲南瓜中转育中国南瓜无蔓性状的意义及可行性,进行无蔓中国南瓜种间杂交试验,采用田间调查结合RAPD分子标记鉴定的方法研究中国南瓜无蔓性状种间遗传规律。通过比较中国南瓜无蔓性状在南瓜属3个种中的遗传表现发现:中国南瓜无蔓性状在种间杂种F1、F2及BC1F1中的分离比例符合孟德尔遗传规律;与种内杂交不同,无蔓中国南瓜与蔓生异种南瓜材料的种间杂交一代表现出节间变长的倾向,表现为不完全显性遗传;通过种间杂交,可将中国南瓜特有的无蔓性状转育到美洲南瓜及印度南瓜中,创造全新的种质资源。

关键词: 种间杂交

Genetic Study on the Vineless Characters of Cucurbita moschata among Species

Abstract:

In order to inquire the meaning and feasibility on transfer the vineless character from C. moschata into C. maxima and C. pepo, the interspecific crossing between C. moschata materials with vineless character and C. maxima materials or C. pepo materials was conducted, we studied the interspecific genetic development on vineless character by the RAPD molecular marker and field investigation. Genetic performance of the vineless character of Cucurbita moschata in three mainly cultivated species in Cucurbita was studied in this paper. The results showed that the segregation ratios of the vineless character in F1 group, F2 group and BC1F1 group of the interspecific hybrids fit the Mendelian law. It was different from intraspecific hybridization that the first filial generation between vineless C. moschata and the other vine pumpkin species showed that the internode elongated and the inheritance belonged to incomplete dominant inheritance. The unique vineless character of C. moschata was transferred to C. pepo and C. maxima by the means of interspecific hybridization and the brand-new germplasm resources were created.

Keywords: interspecific hybridization

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通讯作者: 马海龙

作者简介:

作者Email: haiyingzhi@163.com

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