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作者: 李永春¹ (KeySearch.aspx?type=Name&Sel=李永春); 邢邯¹ (KeySearch.aspx?type=Name&Sel=邢邯); 徐冉² (KeySearch.aspx?type=Name&Sel=徐冉); 盖钧镞¹ (KeySearch.aspx?type=Name&Sel=盖钧镞)

¹南京农业大学大豆研究所, 国家大豆改良中心, 作物遗传与种质创新国家重点实验室, 江苏 南京 210095;
²山东省农业科学院作物研究所, 山东 济南 250100

Author(s): LI Yong-chun¹ (KeySearch.aspx?type=Name&Sel=LI Yong-chun); XING Han¹ (KeySearch.aspx?type=Name&Sel=XING Han); XU Ran² (KeySearch.aspx?type=Name&Sel=XU Ran); GAI Jun-yi¹ (KeySearch.aspx?type=Name&Sel=GAI Jun-yi)

Soybean Research Institute of Nanjing Agricultural University, National Center for Soybean Improvement, National Key Laboratory for Crop Genetics and Germplasm Enhancement, Nanjing 210095, Jiangsu;
²Crops Institute, Shandong Academy of Agricultural Sciences, Jinan 250100, Shandong, China

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摘要: 粒形、粒色、种脐色、茸毛色等质量性状是代表大豆进化程度的指标。以Peking×7605、RN-9×7605两个组合分别在南京和济南衍生的RIL群体为材料,通过比较同一杂交组合在两地衍生群体部分质量性状的表型差异,鉴别大豆部分质量性状在不同生态环境条件下的自然选择效应。结果表明:Peking×7605组合在南京和济南衍生的两个群体4个质量性状均表现出显著差异,且除茸毛色外其他3个性状的差异均达到极显著水平,说明4个质量性状均发生了明显的自然选择。RN-9×7605组合在两地衍生的群体除粒形表现差异极显著外,其余3个性状则没有明显差异,说明只有粒形发生了明显的自然选择。并利用Shannon-weaver信息指数和Simpson指数对两个群体4个质量性状的遗传多样性情况进行了评价,结果显示群体的遗传多样性高低因杂交组合和考察性状而异。

Abstract: Qualitative traits such as seed shape, seed color, hilum color and pubescence color are representative characteristic of evolution extent of soybean. The objective of this study was to reveal that whether there are differences in genetic diversity between two RIL populations derived from the same soybean hybrid combination under two ecological sites. Four RIL population derived from cross of Peking 7605 and RN-9 7605, developed in Nanjing and Jinan, were adopted. The natural selection effect on part of qualitative traits was distinguished by comparing the difference of its phenotype. When these four RIL populations were planted in Jinan, significant difference were detected for seed shape, seed color, hilum color, and pubescence color on soybean in the two population derived from cross of Peking×7605, so did the seed shape in the other two populations derived from cross of RN-9×7605. Furthermore, genetic diversity of the four populations was evaluated for these qualitative traits by Shannon-weaver index and Simpson index, the results showed that diversity was varied with hybrid combination and traits.

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作者简介:李永春(1979-),男,硕士,现为南京大学生命科学学院博士生。E-mail: yongchun191@yahoo.com.cn。

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