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# 中国板栗地方品种重要农艺性状的表型多样性

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# Phenotypic Diversity of Important Agronomic Traits of Local Cultivars of Chinese Chestnut

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摘要 采用巢式设计方差分析、聚类分析等方法，对中国10个省份90个板栗地方品种叶片表型、坚果表型及品质12个重要农艺性状进行多样性分析。结果表明：（1）板栗12个农艺性状在群体内和群体间差异均达到极显著水平，说明其在群体内和群体间均存在广泛变异；（2）叶片表型性状、坚果表型性状及坚果品质性状的平均变异系数分别为7.7%、4.4%和6.8%，表明坚果表型性状遗传稳定性高于叶片表型及坚果品质性状；（3）群体间表型分化系数$V_{ST}$均值为23.42%，远远小于群体内变异（76.58%），群体内变异是其主要的变异来源；（4）利用群体间最小距离进行聚类分析，将10个板栗群体分为4大类，反映不同地理群体板栗表型多样性存在差异。

关键词： 板栗 地方品种 农艺性状 表型多样性

Abstract: Phenotypic diversity of 12 important agronomic characters include leaf and nut phenotype and quality for 90 Chinese chestnut cultivars from 10 provinces were analyzed using nested design variance analysis and cluster analysis methods. The results showed: (1) There were significant differences for 12 agronomic traits of chestnut among and within populations, indicated that there existed a wide range of variation in the two levels; (2) The average variation coefficient of leaf and nut phenotype and quality traits were 7.7%, 4.4% and 6.8%, respectively, showed that genetic stability of nut phenotype traits was higher than the other two traits; (3) The average of phenotypic differentiation coefficient among populations were 23.42%, which were less than the variation within populations (76.58%), showed that the variation within populations was the main source of variation; (4) Ten populations of chestnut were divided into 4 categories by using the minimum distance cluster analysis, indicated the differences of phenotypic diversity of chestnut existed in different geographical population.

Keywords: chestnut, local cultivars, agronomic traits, phenotypic diversity

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[1] 李树发, 李纯佳, 蹇洪英, 李淑斌, 熊 劲, 李进昆, 唐开学.云南香格里拉特有易危植物中甸刺玫的表型多样性[J]. 园艺学报, 2013,40(5): 924-

[2] 秦 岭, 张 卿, 曹庆芹, 房克凤, 邢宇, 冯永庆.板栗早熟新品种‘京暑红’[J]. 园艺学报, 2013,40(5): 999-

[3] 郑 昕，孟 超，姬志峰，王祎玲*.脱皮榆山西天然居群叶性状表型多样性研究[J]. 园艺学报, 2013,40(10): 1951-1960

[4] 刘遵春, 刘大亮, 崔美, 李敏, 焦其庆, 高利平, 陈学森.整合农艺性状和分子标记数据构建新疆野苹果核心种质[J]. 园艺学报, 2012,39(6): 1045-1054

[5] 张永兵, 李寐华, 吴海波, 伊鸿平, 吴明珠.新疆甜瓜地方品种资源的表型遗传多样性[J]. 园艺学报, 2012,39(2): 305-314

[6] 谢鹏, 郭素娟, 熊欢, 李广会, 吕文君.板栗果实糖和淀粉积累及相关酶活性关系的研究[J]. 园艺学报, 2012,39(12): 2369-2376
[7] 姬志峰, 高亚卉, 李乐, 毛思雪, 赵亮, 耿全英, 王祎玲.山西霍山五角枫不同海拔种群的表型多样性研究[J]. 园艺学报, 2012,39(11): 2217-2228
[8] 王广鹏, 孔德军, 张树航, 刘庆香.抗寒板栗新品种‘燕兴’[J]. 园艺学报, 2012,39(10): 2085-2086
[9] 沈广宁;明桂冬;田寿乐;许 林;柳 絮 .早熟板栗新品种‘岱岳早丰’[J]. 园艺学报, 2011,38(7): 1407-1408
[10] 李兴亮;郭献平;沈元月;曹庆芹;冯永庆;秦 岭;.板栗赤霉素缺陷型短雄花序芽变的初步鉴定及*CmGID1*基因的表达分析[J]. 园艺学报, 2011,38(7): 1251-1258
[11] 兰彦平;周连第;;兰卫宗;刘金海;高天放;刘国彬 .板栗新品种‘怀丰’ [J]. 园艺学报, 2011,38(4): 801-802
[12] 郭 宁;杨树华;葛维亚;葛 红.新疆天山山脉地区疏花蔷薇天然居群表型多样性分析[J]. 园艺学报, 2011,38(3): 495-502
[13] 程军勇;周席华;徐春永;徐永杰;李爱华;罗治建;李金柱;向珊珊.板栗新品种‘八月红’[J]. 园艺学报, 2011,38(12): 2415-2416
[14] 兰彦平;周连第;姚研武;王尚德;刘国彬.中国板栗种质资源的AFLP分析[J]. 园艺学报, 2010,37(9): 1499-1506
[15] 沈广宁;明桂冬;田寿乐;许 林;柳 絮;单公华.板栗新品种‘东王明栗’[J]. 园艺学报, 2010,37(9): 1537-1538