

农学—研究报告

丽江低纬高原马铃薯的杂交效应分析

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摘要:

摘要: 马铃薯高度杂合的同源四倍体遗传背景使马铃薯新品种选育的预见性较差,但对大量亲本杂交效果及其配合力的评价仍使马铃薯育种工作有一定的规律性可循。在低纬高原条件下杂交15份马铃薯亲本,配制93份杂交组合,授粉花朵1937朵,坐果621朵,平均坐果率32.06%,共计60个杂交组合坐果结实。适合做母本的品种有:‘丽薯6号’、‘高淀2’、‘丽薯7号’、‘米拉’、‘宁蒍A’、‘转心乌’等,‘CIP004’、‘CIP005’、‘阿乌洋芋’、‘高淀1’、‘老鼠洋芋’等则适合做父本;‘高淀2’和‘丽薯7号’做父本完全不结实,‘宁蒍A’做父本的结实率也仅有2%,均属雄性不育类型。在坐果率超过70%的19个组合中,云南地方种和CIP亲本的杂交组合居多。

关键词: 亲本选择

The hybridization effect Analysis between Potato Cultures in Low-Latitude Plateau of Lijiang

Abstract:

With the highly heterozygous autotetraploid genetic background of potato cultures, directional breeding of a new potato variety is rather difficult. If, after the hybridization effect and the combining ability of potatoes are estimated, breeding of new potato varieties also has some rules to follow. The 93 crosses from the hybrid population of 15 potato parents planted in low-latitude plateau of Lijiang were analyzed. The results showed that the average irregular fruit rate (IFR) was 32.06% with 621 setting-flowers and 1937 pollinated flowers. There were 60 of 93 crosses to set fruits; ‘Lishu6’, ‘GD2’, ‘Lishu7’, ‘Mira’, ‘NinglangA’ and ‘ZHXW’ were suitable as female parents, and ‘CIP004’, ‘CIP005’, ‘AWYY’, ‘GD1’ and ‘LSYY’ were suitable as male parents. ‘GD2’ and ‘Lishu7’ as male parents were no offspring, belonging to male sterility type. The flower setting percentage of ‘NinglangA’ as male parent was just 2%. The 19 crosses over 70% of the irregular-fruit-rate (IFR) are more from combinations of Yunnan potato landraces and CIP potato germplasms.

Keywords: parent selection

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