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[1]徐鹏飞, 吴俊江, 范素杰, 等. 大豆疫霉根腐病菌的分离鉴定及种质资源对3号生理小种的抗性评价[J]. 大豆科学, 2010, 29(02): 272-275. [doi:10.11861/j.issn.1000-9841.2010.02.0272]

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大豆疫霉根腐病菌的分离鉴定及种质资源对3号生理小种的抗性评价

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摘要: 采用下胚轴伤口接种法, 用在黑龙江省建三江农场分离到的大豆疫霉菌3号生理小种对292份栽培大豆材料 (其中农家品种153份、其它大豆栽培品种139份) 和236份野生大豆材料进行了抗性鉴定。结果表明: 栽培大豆资源抗病80份, 占27.4%, 中间类型93份, 占31.8%, 感病119份, 占40.8%。153份农家品种中, 抗病的有49份, 占农家品种的32.0%, 表明农家大豆品种资源抗性比例较高。野生大豆资源中抗病的有49份, 占20.8%; 中间类型55份, 占23.3%; 感病132份, 占55.9%。鉴定的这些高抗资源可为我国大豆抗疫霉根腐病育种奠定基础。

Abstract: Phytophthora root and stem rot of soybean caused by Phytophthora sojae is a destructive disease in soybean production regions all around the world. Utilization resistant cultivar is the most economical and environmentally safe method for preventing against the disease, and screening on resistance germplasm is the basement for resistance breeding. A total of 292 soybean cultivars (including 153 native soybean germplasm and 139 soybean cultivars) and 236 wild soybean germplasm were inoculated with race 3 of Phytophthora sojae isolated from Jiansanjiang where there is serious disease occurring in Heilongjiang Province. A total of 80 cultivars were resistant, 93 had intermediate reaction, and 119 were susceptible to race 3, representing 27.4%, 31.8% and 40.8% of all the cultivars tested respectively. The number of resistant native soybean was 49, representing 32.0% of all the native soybean germplasm, which means that the percentage of native resistant germplasm was higher. A total of 49 wild soybean germplasm were resistant, 55 had intermediate reaction, and 132 were susceptible to race 3, representing 20.8%, 23.3%, and 55.9% of all the wild soybean germplasm tested, respectively. These resistant germplasm can be used in breeding for resistance to P. sojae.

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