研究论文

引进春小麦种质耐盐性的鉴定评价

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摘要 对从美国引进的28份春小麦种质经过实验室耐盐性鉴定,筛选出13份芽期相对盐害率在20%以下,苗期盐害指数在40%以下的耐盐性较强的材料,进一步在0.37%以上的盐渍化土壤上进行全生育期的耐盐性鉴定,对株高、穗长、穗数、穗粒数、千粒重等生产要素进行统计分析及逐步剔除多元回归分析,结果表明产量性状的耐盐指数与出苗率、保苗率、株高、穗长、穗数、穗粒数、千粒重等要素的耐盐指数呈正相关,且达显著或极显著水平。SW10和SW12两个材料在全盐量为0.35%~0.54%的盐渍化土壤上的田间大区生产示范试验中,不仅表现出较高的耐盐性,而且具有良好的生产潜力,有一定的推广应用价值。

关键词 春小麦品种 其耐盐性 鉴定评价

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Evaluation for Salt Tolerance in Spring Wheat Cultivars Introduced from A broad

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Abstract 28 spring wheat cultivars introduced from America were identified for salt-tolerance at the stage of germination and seedling. 13 of them for salt tolerance were with less 20% of relative salt harm rate at first stage and 40% of salt harmful index at seedling stage and were screened primarily in the field with more than 0.37% salinity. Some agronomic traits such as emergence frequency, seedling survive rate, tillering frequency, plant height, spike length, number of spikes, grains per spike and TGW were analyzed before and after harvest. The results by backward elimination showed that there was significant positive correlations between the index of salt-tolerance of yield and that of emergence frequency, seedling survive rate, plant height, spike length, number of spikes, grains per spike and TGW, respectively. Comprehensive analysis indicated that the two cultivars SW10 and SW12 appeared in higher salt-tolerance, better agronomic characters and application and extension value.

Key words Wheat cultivars Salt tolerance Evaluation

DOI:

扩展功能

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