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研究论文

大豆耐盐性遗传的研究

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摘要 利用耐盐品种与盐敏感品种配制杂交组合，根据后代耐盐性的分离表现，研究大豆耐盐性的遗传方式。耐盐×耐盐组合F1、F2及F3代仍表现耐盐；敏感×敏感组合F1、F2及F3代均表现对盐敏感；耐盐×敏感及其反交组合，F1代表现耐盐，F2代耐盐和敏感植株分离比率为3：1。F2代耐盐株衍生的F3代品系中，纯合耐盐株系和耐盐性分离株系的比率为1：2。F2代敏感株衍生的F3代品系仍表现敏感，用敏感品种为轮回亲本对耐盐×敏感组合进行回交，BC1F1代耐盐株与敏感株分离比例为1：1。结果表明，大豆的耐盐性受一对基因控制，耐盐为显性，对盐敏感为隐性。正反交组合表现一致，表明属核遗传。

关键词 大豆（Glycien max (L.) merr.）,耐盐性,遗传

分类号

Study on Inheritance of Salt Tolerance in Soybean

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Abstract Crosses were made with salt tolerant and salt sensitive soybean varieties to study the inheritance of salt tolerance. The results indicated that the F1, F2 and F3 were all salt tolerant when both parents were salt tolerant; they were all sensitive when both parents were sensitive. When a salt tolerant variety was crossed with a sensitive one, or vice versa the F1 was salt tolerant; the F2 segrigated in a 3 s. t: 1 s ratio; the F3 lines from salt tolerant F2 plants in a homogeneous s. t.: 2 segrigating ratio, and lines from sensitive F2 plants were all sensitive. In backcross progenies with sensitive varieties as the recurrent parents, the segrigating ratio was always 1 s. t: 1 s. Thus, the results indicated that the salt tolerance of soybean is controlled by one pair of dominant genes in the nucleus where salt tolerance is dominant to sensitiveness.

Key words Soybean (Glycine max) Salt tolerance Inheritance

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