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温度和盐分胁迫对野生大豆种子萌发的影响

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摘要: 研究了不同NaCl浓度(0, 25, 50, 100, 200 mmol·L⁻¹)、温度(10/15℃、15/20℃、20/25℃、25/30℃)对野生大豆种子萌发的影响。结果表明:野生大豆种子在蒸馏水中温度周期为10/15℃、15/20℃、20/25℃、25/30℃时种子萌发率均达到96%以上,最适的萌发温度周期为25/30℃,此时种子萌发迅速,且发芽率、发芽指数及活力指数均最高;温度一定时,适当的盐浓度会促进种子萌发;随着盐浓度的增加,幼苗生长量呈现下降的趋势

Abstract: Seed germination and embryo growth of Glycine soja were studied under five levels of salinity(0, 25, 50, 100, 200 mmol·L⁻¹)stress and four temperature regimes(10/15℃, 15/20℃, 20/25℃, 25/30℃).The germination rate of Glycine soja seeds could reach above 96% in a wide range of thermoperiod treatments of 10/15℃, 15/20℃, 20/25℃, 25/30℃, the optimal temperature for germination was 25/30℃ in distilled water.The seed of Glycine soja were adapted well to high temperature and germinated rapidly at 25/30℃.Its germination percentage, germination index and vigor index were increased with the temperature rose.At certain temperature, appropriate salinity could promote seed germination,with the increase of NaCl concentration,seedling growth decreased.

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