

Carpici EB, Celik N, Bayram G (2009) Effects of Salt Stress on Germination of Some Maize (*Zea Mays* L.) Cultivars. African Journal of Biotechnology 8(19):4918-4922.

Abstract

This study was conducted to investigate the effects of salt stress on germination of six maize (*Zea mays* L.) cultivars (ADA-523, Bora, C-955, PR 3394, Progen 1150 and Trebbia). The degrees of salinity tolerance among these cultivars were evaluated at seed germination stage at six different salt concentrations (0, 50, 100, 150, 200 and 250 mM NaCl). The results showed that in all cultivars as the salt concentration increased, both germination percentage and germination index decreased significantly. Responses of cultivars to salt stress indicated differences. For all salt concentrations, C-955 had the highest germination percentage and germination index. Salt concentration decreased shoot and root dry weight. Bora and C-955 had the lowest reduction of shoot and root dry weight, respectively. Progen-1550 had the highest reduction of shoot and root dry weight. On the other hand, C-955 showed better results than the other cultivars in respect of salt tolerance index. The results showed that C-955 is the cultivar to be recommended for saline soils. Progen-1550 was more sensitive to salinity in this study.