Effects of Salt Content on the Germination and Seedling Growth of Muskmelon[1]

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Abstract

In order To study the effects of salt content on the germination, rooting and seedling growth of muskmelon in Penghu, a total of 5 trials including seed germination test, varietal test for rooting and seedling growth under salty conditions, were carried out from 1989 to 1990.

Results showed that significant differences in salt tolerence were found among muskmelon varieties concentration of salt (NaCl) and their interactions. Salt can inhibit seed germination, rooting and seedling growth in some cultivars, such as Earl's 18, especially under high concentration conditions. Rates of germination were not decreased. However, the time required for germination was delayed under high salty conditions. Salt content in the rate of 2g/l (NaCl) has some good effects on the germination and rooting, such as in Earl's 18. Salt content higher than 4g/l has some inhibit effects on germination, rooting, and growth of seedling. It seemed that salt content of 4g/l (ECe value 7.22 mS/cm) was a threshold value for salt tolerance of muskmelon seed germination and seedling growth.

Keywords: salt, muskmelon, germination, rooting, seedling growth.

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