**P-100 (199)**
**EFFECT OF SALINITY ON SEED GERMINATION AND SEEDLING GROWTH OF ZIZIPHUS MAURITIAAN AND ZIZIPHUS SPINA –CHRISTI**

**Abdolali Hesami,** Department of Horticultural Science, College of Agriculture, Persian Gulf University, Boushehr, Iran; alihesami4400@yahoo.com (Presenting author)
**Dr. Malek Hossein Shahriari,** Department of Horticultural Science, College of Agricultural Sci. and Natural, Persian Gulf University, Boushehr, Iran; mh.shahriari@pgu.ac.ir
**Ms. Leila Bazdar,** Department of Horticultural Science, College of Agricultural Sci. and Natural, Persian Gulf University, Boushehr, Iran; Leilam_fh@yahoo.com

This study was conducted to investigate the effect of salinity on seed germination (*Ziziphus spina-christi*and*Z. mauritiana*) with a factorial experiment in a randomized complete block design with six replications in 2014. The experimental factors consisted of four different types of seeds from two genotypes of *Z. mauritiana* (round seed and elongated seed) and two different wild genotypes of *Ziziphus spina-christi* (coarse grain and fine grain) in four levels of soil salinity with an electrical conductivity of 1.8 (control), 5.8, 10.2 and 16.5dS $m^{-1}$. Over a period of 35 days traits such as days to germination, days to 50% germination, final percentage of germination, germination dispersion, maximum value, mean daily germination, and germination value, were examined. The results showed that the seeds of the two wild genotypes germinated much faster than other treatments. The highest percentage of final germination (100%) in both wild genotypes (*Ziziphus spina-christi*) was at control and 5.8dS$m^{-1}$treatment. The lowest percentage of final germination rate of elongated *Z. mauritiana* seeds was at all three level of salinity (5.8, 10.2, and 16.5dS $m^{-1}$) and round *Z. mauritiana* seeds was at 16.5 dS $m^{-1}$.With increasing soil salinity, the dispersion characteristics of germination and mean number of *days to germination* was significantly increased but the maximum value and the value of the germination traits were significantly decreased. Survival percentage, length, and number of actual leaves of seedlings were significantly decreased with the increasing of soil salinity. Both Wild genotypes (*Ziziphus spina-christi*) and two type of *Z. mauritiana* at 1.8 dS $m^{-1}$ (control) level have the highest survival rate (100%).The lowest survival rate of seedlings in elongated *Z. mauritiana* seed genotype was in all three levels of salinity(5.8, 10.2, and 16.5 dS $m^{-1}$) and in round *Z. mauritiana* seed was at 16.5 dS m.

Keywords: Germination, Growth, Seedlings, Soil salinity, Ziziphus