Interactive Effects of Salinity Stress and Primo Growth Regulator on Bluegrass. (C05-pessarakli165928-Oral)

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Abstract:

Interactive effects of salinity and Trinexapac-ethyl (Primo MAXX) on Kentucky bluegrass (Poa pratensis L.), cv. Nu Star were studied in a greenhouse, using hydroponics technique, Hoagland solution No. 1. Eight treatments (C, CP1, CP2, and CP3 = control + 0, 97.18, 194.36, and 291.54 g/Ha active ingredient Primo, respectively, S, SP1, SP2, and SP3 = 4 dS/m2 salinity + 0, 97.18, 194.36, and 291.54 g/Ha active ingredient Primo, respectively) were used in a RCB design with 8 replications. Turf canopy percent green coverage decreased linearly with increasing salinity level. Shoot length and shoot dry weight (DW) of Kentucky bluegrass decreased with both salinity and Primo treatments, although the differences in shoot length and shoot DW were not significant between Primo treatments at 194.36 and 291.54 g/Ha active ingredient Primo application rates. Reduction in the above parameters (canopy % green coverage, shoot length, and shoot DW) by salinity was more pronounced when the turf was treated with Primo, suggesting that Primo significantly reduced the turfgrass salinity tolerance. Since bluegrass is a cool-season species and the experiment was conducted in Arizona (hot desert climate), the heat may have influenced the results of this investigation.

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