

[P99] EFFECT OF ISOFLAVON AND PLANTING DATEING ON SEED YIELD AND YIELD COMPONENT S OF THREE MEDICAGO SPECIES

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In order to study the effect of planting date and isoflavon (genistein) on seed yield and other traits related to three annual medic an, experiment was conducted in the field in years of 2015 and 2016. In this experiment three annual medics, three levels of planting dates (20 February, 1 and 11 of March) and 2 levels of isoflavon (0 and 20 micromole/L) were considered. Field experiment was conducted in split split plot design in base of complete randomized block with four replications. In field experiment, varieties were significantly different for seed yield and other studied traits. *M polymorpha* was better than other varieties for seed yield, root dry matter. *M. polymorpha* had more ability for nitrogen fixation than other varieties. In second and third planting dates than the first one, nitrogen fixation and forage production were increased in annual medic varieties due to increasing effective indices in seed producing such as leaf number and area, leaf stem dry matter and plant height. Using isoflavon in 20 micromol/L in comparison with control (0 micromol/L) affect on nodulation and nitrogen fixation in annual medic varieties under field conditions. These results showed that isoflavon on the reducing negative effect of environmental low temperatures on nodulation and nitrogen fixation of annual medics.

Keyword: annual medic, isoflavon, planting date, seed yield, yield components