

[P100] FORAGE AND YIELD COMPONENTS OF THREE MEDICAGO SPECIES UNDER DIFFERENT PLANTING DATE AND ISOFLAVON

Majid Amini Dehaghi¹, Fatemeh Abedin²

¹Shahed University, Agronomy, Tehran, Iran

²Azad University, Karaj, Iran

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

Keywords: Annual medic, Forage, Isoflavon, Planting date