

FORAGE QUALITY OF SEMI-NATURAL AND CULTURAL GRASSLANDS IN THE ECOLOGICAL FARM

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Plant species composition and forage quality were evaluated in cultural and two types of semi natural grasslands (molinia meadow and lowland hay meadow) in Central part of Lithuania. Gineitai, Kėdainiai distr. (x=6138686; y=501537, x=6138620; y=50143) in 2019 and 2020 Grassland fields were located in private ecological farm. Species composition was evaluated in ten test plots in each cultural grassland field and ten test plots were chosen in lowland hay meadow. The size of the test plot was 1 m², plots were chosen randomly in the boundaries of the field, the least distance to the field margins and between the plots was 10 m. Each test plot was harvested for forage quality evaluation. Crude protein, dry matter digestibility, neutral detergent fiber, water soluble carbohydrates were evaluated using near-infrared spectrometer NIRS-6500.

Results: As expected number of plant species was 2 – 3 times higher in semi-natural grasslands compared to cultural. Cultural grassland plant biomass accumulated also contained higher percentage of neutral detergent fiber and lower percentage of proteins. Semi natural grasslands differed significantly among each other in several forage quality parameters as well as number of plant species. The lowest neutral detergent fiber, highest dry matter digestibility was assessed in molinia meadow plant biomass samples.

Keywords: forage quality, species composition, grasslands

