

THE EFFECT OF WEED *SPIRULINA PLATENSIS* ON THE MILK PRODUCTION IN COWS

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Summary. The objective of this experiment was to investigate the potential influence of microweed *Spirulina platensis* on the the milk production and serological parameters in Lithuanian Black-and-White cows. Twenty cows on II-III lactation at 60-120 days from the beginning of lactation were divided randomly into two groups each of 10 cows - control and experimental groups, respectively. Two experimental diets were formulated based on forage (control) and on forage with 2 g/day per cow biomass of fresh weed *Spirulina platensis*. During 60 days forage plus weed fed cows exhibited an 7.6% or 136 kg increment in average amount of milk compared to the cows on forage diet. In cows on weed supplementation the average amount of milk fat increased on 17.6-25.0 % ($P<0.05$), the average milk protein on 9.7% ($P<0.05$) and amount of lactose on 11.7% ($P<0.001$) compared to the controls. In addition, diet supplementation with *Spirulina platensis* by 29.1% reduced the amount of somatic cells (SCC) in milk compared to control group. Further, in microweed-fed cows mean amount of haemoglobin increased on 8.9% ($P<0.05$) and erythrocytes on 13.1% ($P<0.05$) compared to the control group, respectively. These results demonstrate that inclusion of microweed *Spirulina platensis* in the diet leads to increment of milk production, stimulates hemopoiesis and non-specific resistancy of organism of milking cows.

Key words: microweed *Spirulina platensis*, cows, milk production.