

International Meeting on

VETERINARY AND ANIMAL SCIENCE

August 06 - 07, 2018 | Dubai, UAE

Extruded field beans “Fuego” (*Vicia faba*), its effects on dairy cow’s performance, milk composition and sensory properties

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Faba bean (*Vicia faba L.*) is a legume seed well adapted to most climatic areas of Europe and widely used for feed and food. Legumes including faba beans benefits the soil fertility by fixing nitrogen and improves soil properties as a catch. The extrusion process depends on many factors, such as temperature, time of exposition or humidity level. The nutritional value of *V. faba* bean seeds could depend on these parameters of extrusion. We hypothesises, that there is coherence between nutritional value (amino acids profile, fatty acids composition and etc.) of non-extruded or extruded faba bean’s seeds and milk quality of dairy cows. The objective of this study was to determine nutritive value of untreated and extruded field beans *V. faba* of genotype “Fuego” and its effects on dairy cow’s performance, milk

composition and sensory properties. The results of our study shows that the replacement of non-extruded field beans with extruded in dairy cows rations, had positive effect on milk yield, also increased milk fat and protein content. During experimental period, the amount of urea and lactose in milk, both in control and experimental group, differed non-significantly. The results of milk sensory properties, shown that non-extruded beans replacement with extruded in dairy cows rations, had no negative influence on milk sensory parameters. Both groups (control and experimental) milk samples had no difference from each other by odour’s intensity, every sample had an apparent milk’s specific odour.

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