

The effect of feeding linseed cake on milk yield and milk fatty acid profile in goats

Artur Jóźwik^{1*}, Nina Strzażkowska¹, Emilia Bagnicka¹, Zbigniew Żagodziński², Bożena Pyzel¹, Wojciech Chyliński¹, Agnieszka Czajkowska¹, Weronika Grzybek¹, Danuta Słoniewska¹, Józef Krzyżewski¹, Jarosław Olav Horbańczuk¹

¹ Polish Academy of Sciences Institute of Genetics and Animal Breeding, Jastrzębiec, 05-552 Wólka Kosowska, Poland, ² Abbott Laboratories Poland, Postępu 21B, 02-676 Warsaw

Abstract :

The study aimed at determining the effect of supplementation the diet with linseed on milk yield and milk fatty acids profile in the middle stage of lactation of goats. Used were 16 Polish Fawn Improved goats divided into two groups: (1) fed the standard diet without supplementation (control) and (2) fed the diet supplemented with linseed cake (19.9% of diets' total dry matter). Both diets were balanced according to INRA feeding standards and offered from week 12 to 17 of goats' lactation. Milk samples were taken twice: two weeks after the beginning and then at the end of supplementing the diet with linseed cake. The linseed cake led to increase in milk yield and to favourable changes in fatty acids profile (the share of MUFA increased and of SFA decreased). Moreover, CLA content of milk significantly increased (ca. 10-fold) after linseed cake supplementation, whereas the concentration of undesirable SFA (especially C12 to C16) dropped significantly (almost 2-fold).

Key Word :

goat, fatty acids, linseed cake, milk

Volume 28, Number 3, - 2010