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EFFECT OF FATTENING LAMB WITH SUNFLOWER CAKE AND LINSEEDS WITH OR WITHOUT VITAMIN E ON FATTY ACID PROFILE OF INTRAMUSCULAR FAT

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OBJECT OF RESEARCH: - effect of using sunflower cake, linseed and vitamin E supplementation in lamb fattening on the fatty acid profile and content of *m. longissimus lumborum* fat

MATERIAL AND METHODS:

- 18 ram-lambs fattened intensely to mass 32-37 kg; 50% Kołuda sheep (KS) + 50% F_1 crossbreeds **Ile de France x KS [photo ►]**
- 3 feeding groups: **C** - standard dry mush (> 50% cereal components + 20% rapeseed meal)
  SCL - 23,5% sunflower cake and 5% linseed in dry mush
  SCL+E - SCL dry mush + vitamin E
- the fatty acid profile and content of ***m. longissimus lumborum*** **[MLL]** fat were analised

RESULTS:

The SCL diets compare to C contained 11% more fibre and over twice as much fat in DM - diet C - 4,31% *vs.* 8,75% on average in SCL). Lambs from SCL groups consumed less C18:1 c11 (by 63.4%) and more C18:0, C18:1 c9, C18:2 and C18:3 (respectively by: 395,6; 58,2; 124,1 and 336,4%)

	FA pool; %			Muscle tissue; g/100 g		
	C	SCL	SCL+E	C	SCL	SCL+E
Fat				28,2	30,5	22,2
FA: - C16:0	24,0 a	21,4 a	22,3	6,5	6,2	4,8
- C18:0	14,0	16,2	15,9	3,9	4,7	3,3
- C18:1 c9	41,7 AB	33,0 AC	36,6 BC	11,2	9,7	7,8
- C18:2	5,1 AB	11,5 A	9,5 B	1,4 A	3,3 Aa	2,0 a
- C18:3	0,4 AB	1,3 A	1,2 B	0,1 Aa	0,4 Ab	0,3 ab
- PUFA n3	1,18 AB	2,46 A	1,94 B	0,32 A	0,72 Aa	0,41 a
- CLA	0,40 ab	0,58 b	0,60 a	0,11	0,16	0,13
PUFA:SFA	0,265 A	0,466 A	0,363			
PUFA n6:n3	7,652 ab	6,398 a	6,589 b			

AA, BB, CC - P≤0.01; aa, bb - P≤0.05

PRELIMINARY CONCLUSION:

- **considerable differences were found in the absolute content of most fatty acids between SCL groups and C group, and in some acids between SCL and SCL+E ones**
- **breed origin of lambs had no significant effect on fatty acid profile and content of MLL**