



# STUDY ON THE POSSIBILITY OF MAKING CHEESE FROM ALL MILK PROTEINS AND MOZZARELLA-TYPE CHEESE FROM SHEEP MILK

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## AIM OF INVESTIGATION:

The aim of the study was to determine the possibility of making cheese from all milk proteins (AMP) and mozzarella-type cheese (Mozz), with semi-hard maturing cheese (SHM) as the control product.

## MATERIAL AND METHODS:

Cheeses were produced as follows: for Mozz pasteurized milk was treated with appropriate cheese cultures and rennet. After curdling, the clot was cut, cheese mass was pressed for 0.5-1 h, cooled in ice-cold water, placed for 24 h at 4-6°C, sliced and scalded. Thereafter cheese mass was plasticized, cheeses were formed, salted in 16% brine and packed. The cheese AMP was produced as follows: milk with calcium chloride (5 g/100 kg) was heated to 90-92°C, cooled to 34-36°C, adding the remaining part of calcium chloride (15 g/100 kg), acidified with cheese cultures and treated with rennet. SHM cheese was made from pasteurized milk, which was inoculated with cheese cultures and treated with rennet. Both semi-hard cheeses were subjected to pretreatment of cheese mass and moulding of cheeses, which were pressed for 20-24 h, salted for 24 h in brine solution and placed in a ripening room for 5-6 weeks. Cheeses were made from the milk of prolific-dairy line of Koluda sheep in two successive years, and 4 batches of each cheese were produced per year.



## RESULTS:

		COMPOSITION of MILK for CHEESE:			COMPOSITION of CHEESE:		
		MOZZ	AMP	SHM	MOZZ	AMP	SHM
Dry matter	(%)	16,98	17,70	17,12	55,29	52,44	51,58
Protein	(%)	5,54	5,45	5,45	22,26	23,34	21,75
Fat	(%)	6,48	6,78	6,70	21,66	21,11	21,30
Protein/fat ratio		0,86	0,81	0,82	1,05	1,11	1,03
Energy value	kcal	96,8	100,9	98,1	313	301	298
Retention of milk proteins	(%)	-	-	-	84,97	87,29	85,14
SFA	g/100g fat	69,6	67,6	69,0	68,9	68,7	68,1
UFA	g/100g fat	30,1	32,0	30,6	30,4	30,7	31,4
PUFA	g/100g fat	4,4	4,5	4,5	4,5	4,5	4,5
$\Omega - 6/\Omega - 3$		3,04	2,94	2,92	2,62	2,67	2,61
Ca	g/kg	2,14	1,92	2,11	8,41	7,48	7,72

## CONCLUSION:

The results obtained show that new cheese types can be made from sheep milk.