

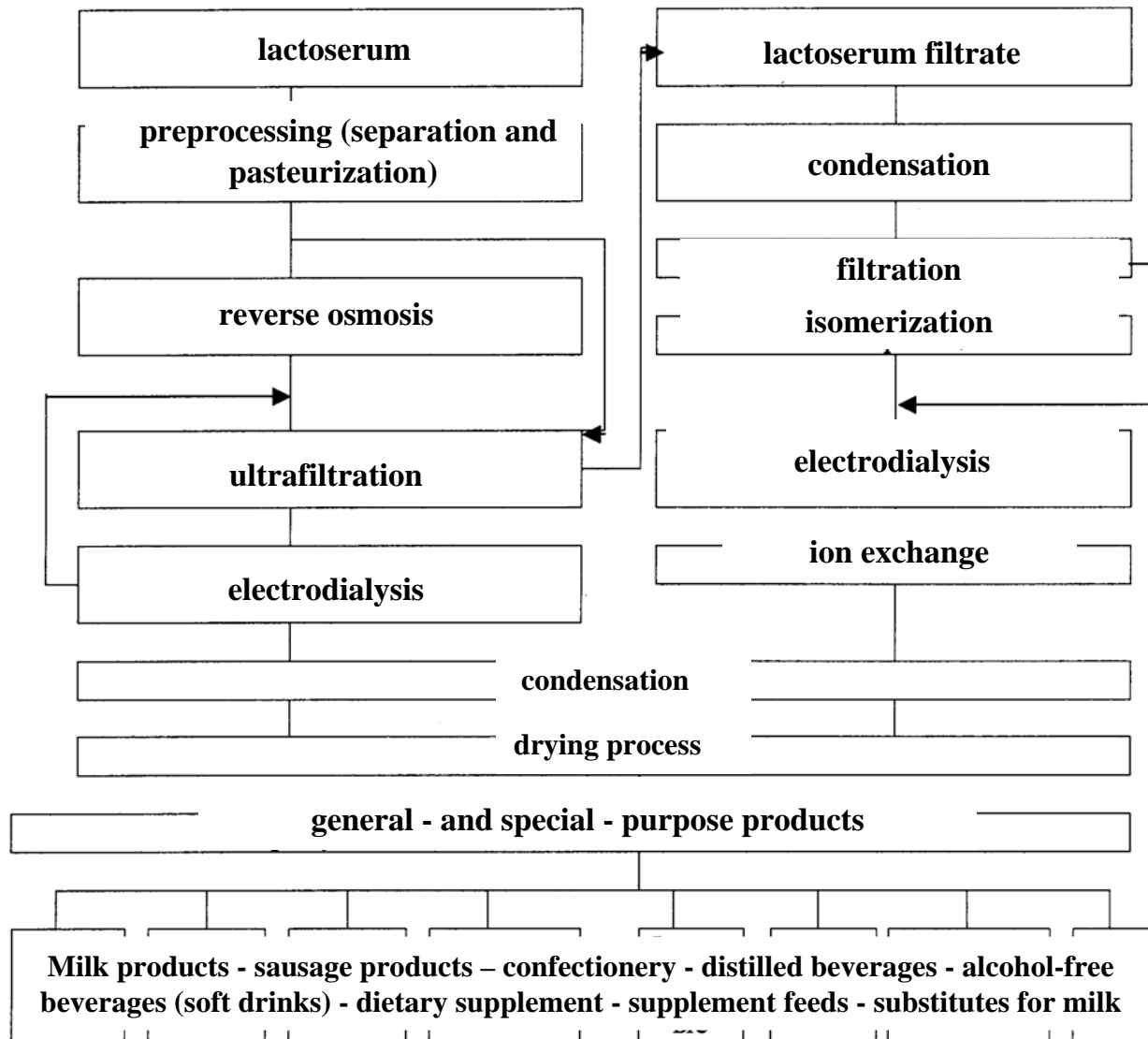


Functional components and foodstuffs from lactoserum

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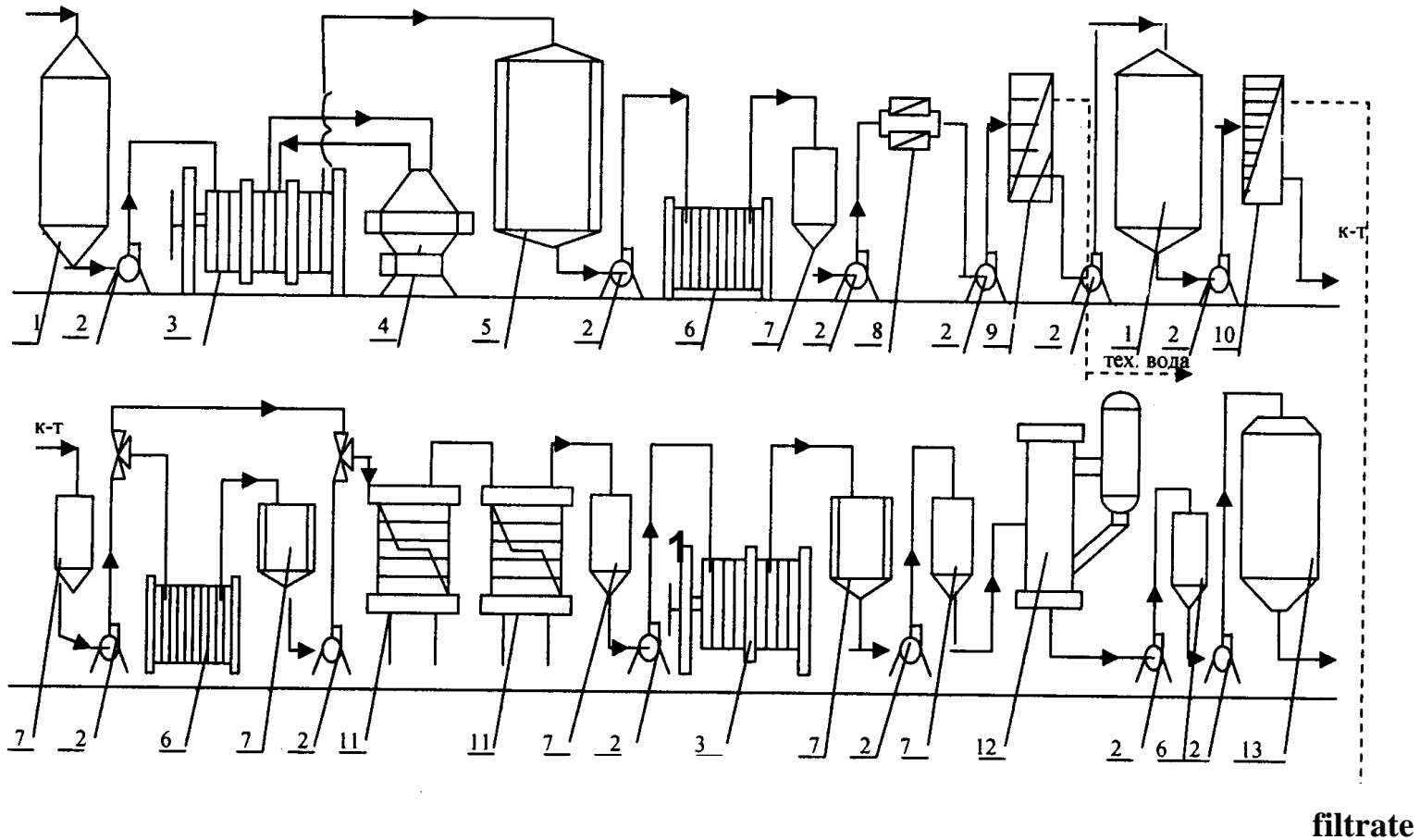
**The Yaroslavl State Institute of Quality the Raw Materials and Foodstuffs
(YAGIKSPP)**

1



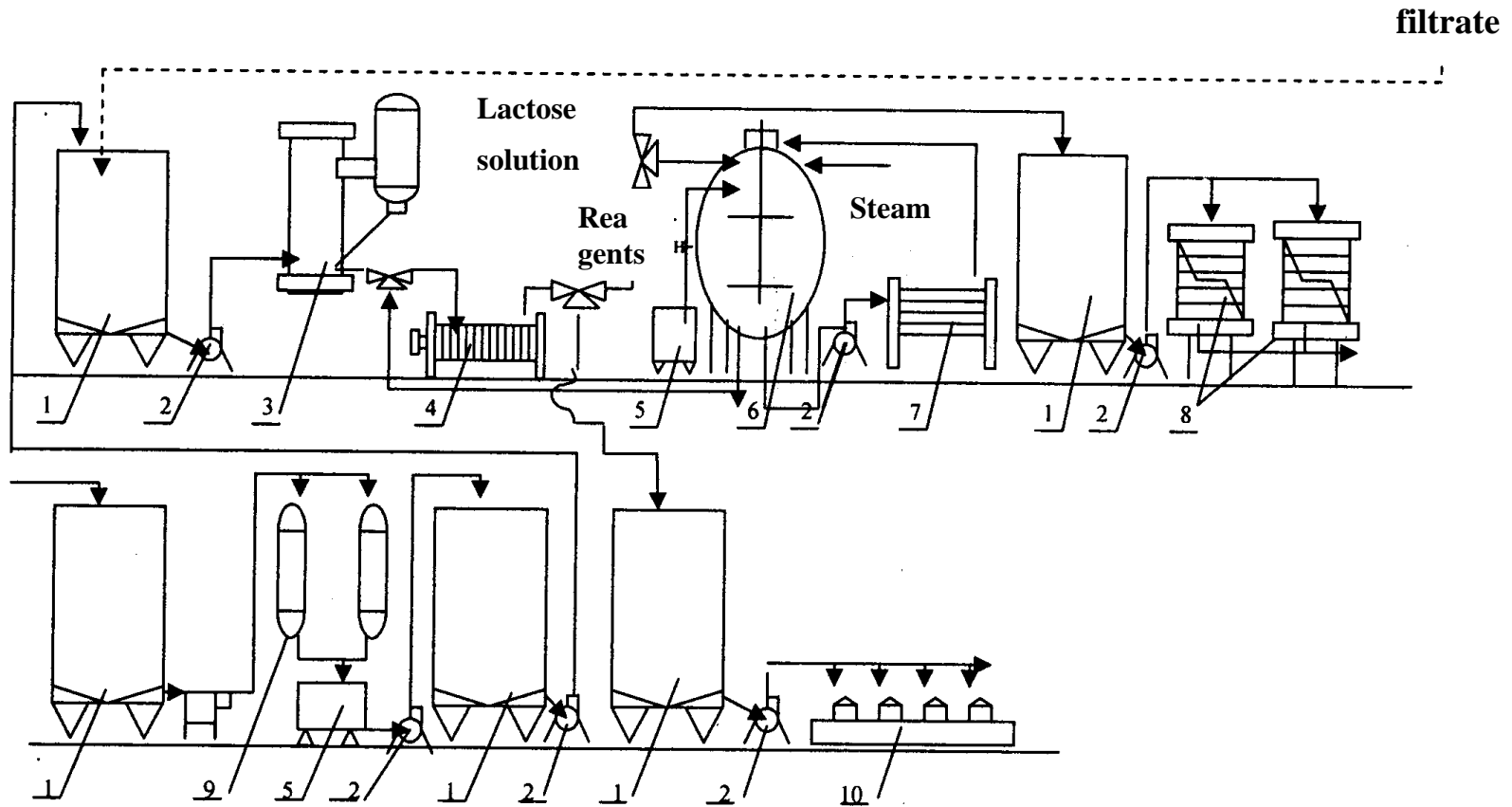
The use of membrane process when processing lactoserum

2



Explication of equipment for whey protein concentrate manufacture obtained by UF and ED methods

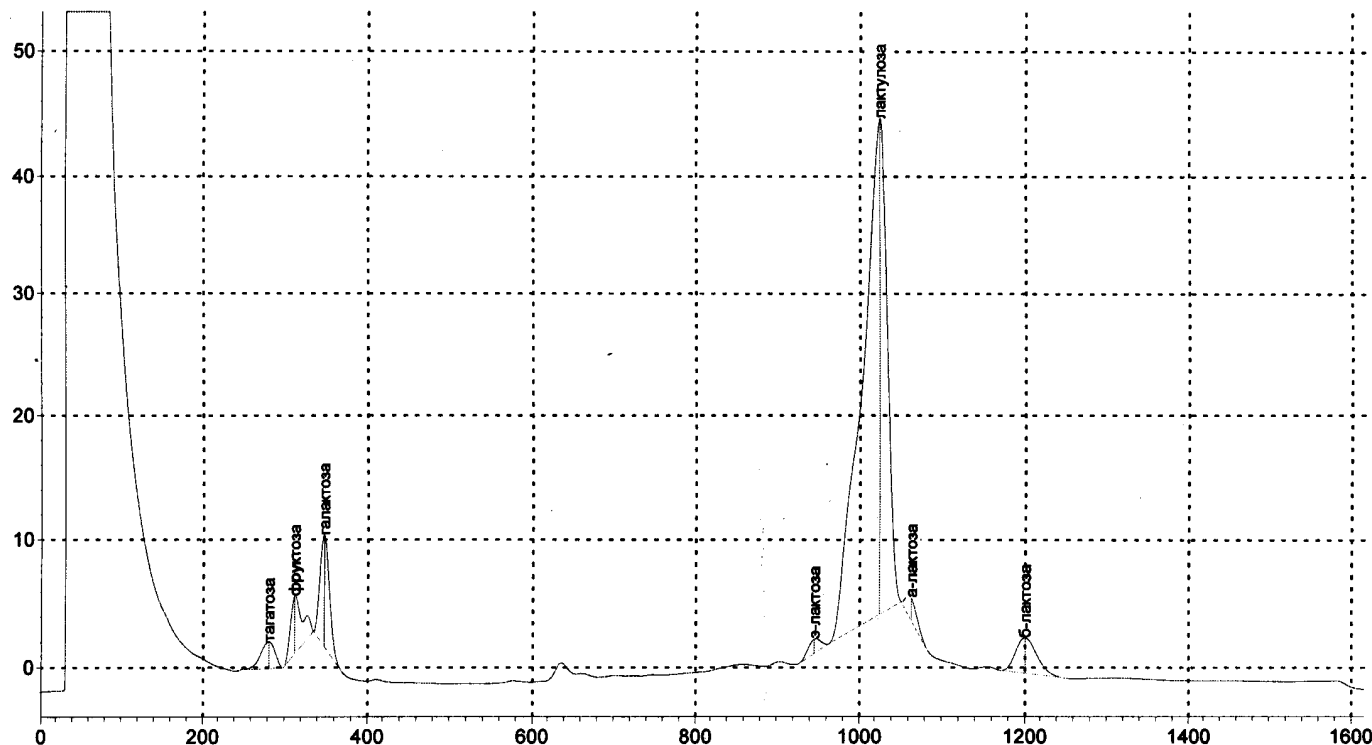
3



Explication of technical line for lactulose “Lazet” manufacture

4

Chromatogram diagram



Хроматограмма: C:\Program Files\Цвет-Аналитик\1.03 С\Хроматограммы_1_03\ПАКТУЛОЗА\от 20.04.07.cfm
 Длительность: 1600 Создана: 20.04.2007 14:27:20

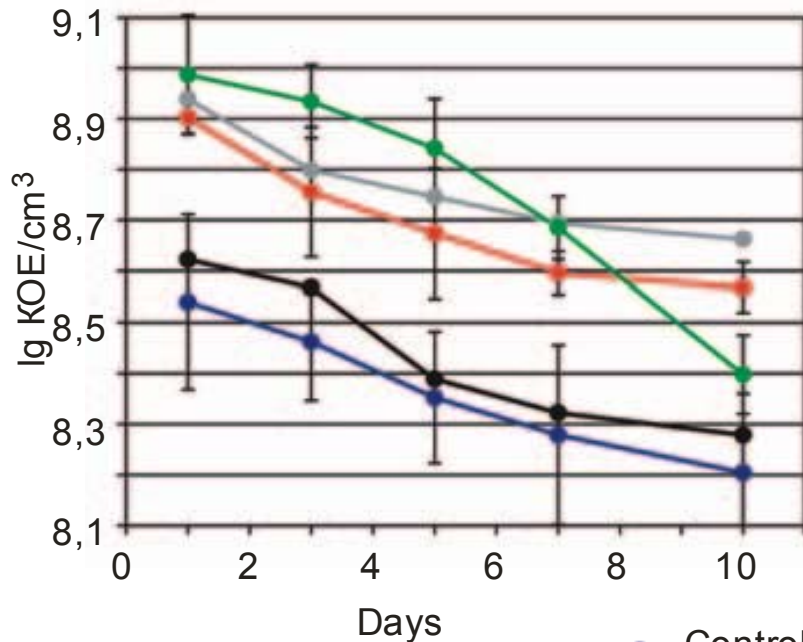
Таблица Пиков

№	Имя	П/Ш	Время	Высота	Площадь	Конц.	Доза
1	тагатоza	20	278	2,150685	43,823565	2,508088	1,000000
2	фруктоza	16	308	4,596000	74,527779	4,265336	1,000000
3	галактоza	13	344	8,715630	116,936329	6,692440	1,000000
4	α-лактоza	17	936	1,152935	19,725054	1,128894	1,000000
5	лактuloза	34	1014	40,449144	1379,189768	78,933084	1,000000
6	α-лактоza	15	1052	1,818298	27,914325	1,597578	1,000000
7	β-лактоza	30	1188	2,864065	85,173040	4,874580	1,000000
Сум.				61,746756	1747,289860	100,000000	

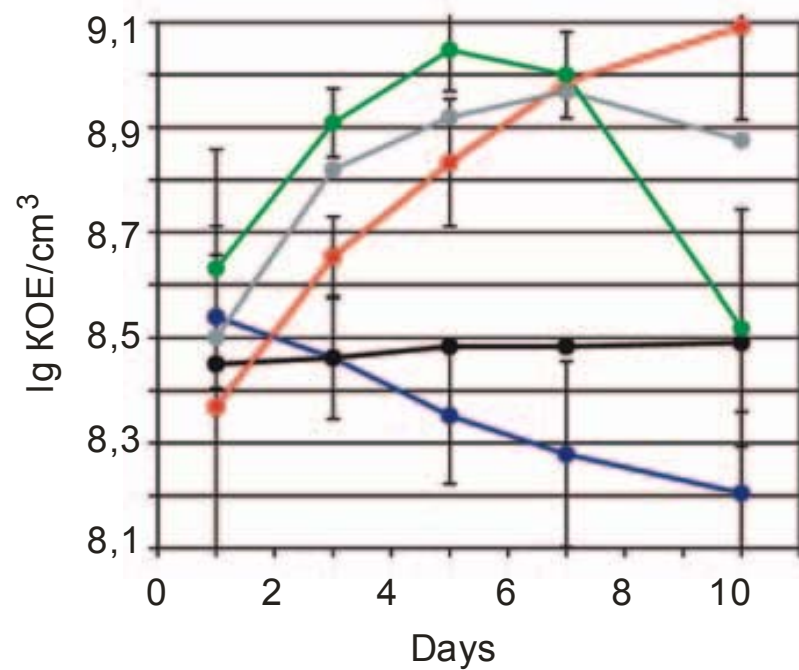
**percentage of
lactulose in a
dry substance
≈ 79%**

5 index name	value for concentrate					
	«Lazet-PC»	«Lazet- P»	«Lazet- D»	«Lazet- L»	«Lazet-Vita-D»	«Lazet-Vita-L»
1	2	3	4	5	6	7
weight fraction, %, not more than	50,0	50,0	45,0	33,3	45,0	33,3
weight fraction of lactulose in a dry substance, %, not less than	66,0	66,0	75,0	75,0	75,0	75,0
vitamin C, g/kg	12,0	-	-	-	-	-
vitamins mg/100ml, not less than						
B ₁	-	-	-	-	6,0	6,0
B ₂	-	-	-	-	6,0	6,0
B ₆	-	-	-	-	7,0	7,0
B ₉	-	-	-	-	0,7	0,7
PP	-	-	-	-	6,3	6,3
density, kg/m ³	1230±3	1230±3	1260±3	1360±3	1260±3	1330±3
bulk weight, kg/ m ³	-	-	-	-	-	-

6



a



b

Fig. 1. Dynamics of bifidus bacteria quantity when lactulose is added:
 a) before ripening; b) after a blob is formed. For the products with added 2
 b) and 0,5 % lactulose and control, confidence intervals ± 2 of standard
 c) deviation are indicated.

7

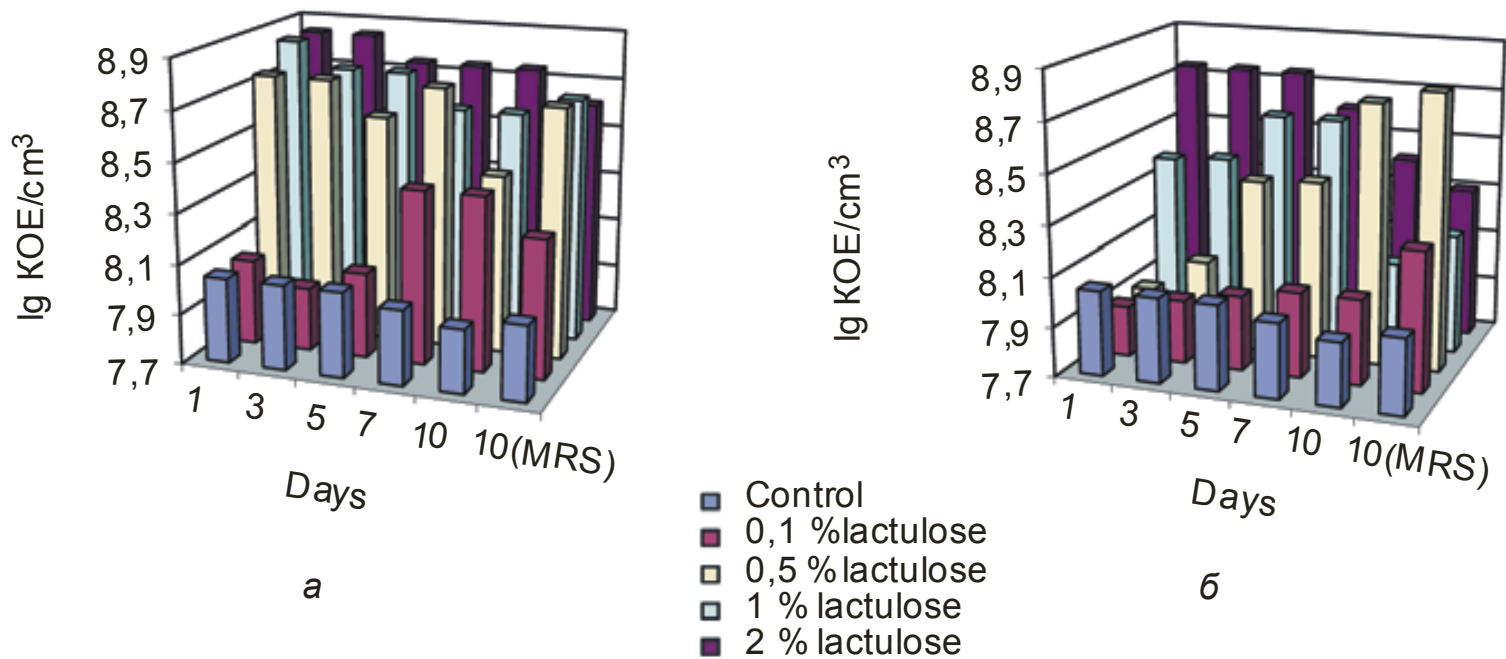


Fig.2. Dynamics of lactic-acid bacteria quantity when lactulose is added: a) before ripening; b) after a blob is formed.

