

Kashkaval (Bulgarian type) Guidelines

Suggested Cheese Recipe

Kashkaval is one of the oldest cheese types in the world, and one of the most popular hard cheeses in the Balkans. Today it is mostly produced in the Balkans, the Arabian countries and the countries around the Mediterranean.

Kashkaval is manufactured from cow's, sheep's or goat's milk or sometimes from mixed milk. It belongs to the Pasta Filata cheese types, ie it is treated as in a Cheddar process until pH reaches around 5.2, and then heated to 60-65°C (140-149°F) in warm, salt water, temperature 72-75°C (162-167°F).

Technology

Milk	High quality standardised cow's, sheep's, goat's or mixed milk are used.
Heat treatment	Normally raw milk or milk heat-treated at 65°C (149°F) for 15 sec.
Additives	10-15 g of CaCl ₂ per 100 kg of milk.
Culture	For the production of Kashkaval an O culture (<i>Lactococcus lactis</i> subsp <i>cremoris</i> and <i>Lactococcus lactis</i> subsp <i>lactis</i>) is used or an O culture together with a yoghurt culture (<i>Streptococcus thermophilus</i> and <i>Lactobacillus delbrueckii</i> subsp <i>bulgaricus</i>) are used. If a yoghurt culture is chosen, a higher scalding temperature may be used.

The following cultures and inoculation levels are recommended.

Freeze-dried DVS	R-703, R-704 or R-707 500-700u/5000 l
or the blend of	R-703, R-704 or R-707 250u/ 5000 l
	TCC-3 or TCC-4 100u/ 5000 l or
Frozen DVS	R-603, R-604 or R-607 500-700 g/5000 l
or the blend of	R-603, R-604 or R-607 250-300 g/5000 l
	TCC-3, TCC-4, TCC-5 or TCC-6 100-200 g /5000 l

Some producers of Kashkaval prefer to use *Lactobacillus casei*. FD-DVS *L. casei-01* as 25 g or 250 g sachets are also included in Chr. Hansen's product range.

Pre-ripening	It is recommended to pre-ripen the milk at 32-34°C (90-93°F) for 30-40 min.
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Rennet	Liquid	NATUREN Standard Plus 175 15-25 ml per 100 l of milk or CHY-MAX Plus 15-20 ml per 100 l of milk
	Powder	CHY-MAX Powder Extra 1-3 g per 100 l of milk or NATUREN Standard 900 2-5 g per 100 l of milk
	A gel will form in 40-50 min.	
Cutting	Cut into 6-8 mm cubes.	
Stirring	The curd is stirred for 15-20 min.	
Scalding	The temperature should be raised to 38-39°C (100-102°F).	
Stirring	The curd and the whey should be stirred for 90-120 min, depending on the acidity of the whey.	
Draining	The curd is pressed under some of the whey. The curd is ladled into a cloth and pressed with 1 kg increasing to 4 kg per kg of cheese for 30-60 min.	
Cheddaring	Traditionally this involves cutting the curd into blocks and letting the acidity of the curd increase to pH 5.2-5.4 at 35-37°C (95-99°F).	
Milling	Milling involves cutting of the large curd blocks into strips of 0.3-0.4 cm.	
Stretching	The curd is heated in brine (8-12% NaCl) to about 60-65°C (140-149°F).	
Pressing	The salted, warm curd is filled into moulds and pressed. The moulds should be turned regularly for the next 24 hours.	
Salting	Brine salting to obtain a total salt percentage of 1.8-2.5% salt.	
Ripening	The cheese is ripened at 12-16°C (54-61°F) and at 85% RH for 60 days.	
Storage	The cheese is packed in plastic film and stored at 2-4°C (36-39°F) for 10-12 months.	

Chr. Hansen's worldwide facilities and the personnel of our application and technology center are at your disposal with assistance, instructions and guidance for your choice of culture and rennet.

The information contained herein is to our knowledge true and correct and presented in good faith. However, no warranty, guarantee, or freedom from patent infringement is implied or inferred. This information is offered solely for your consideration and verification.

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