Exempe	l: registrerin	g av avvikelse	r och ko	orrigerande
Produkt	Halvfast ost (Tils	siter typ)		
Datum	9.7.2018			
Tid	Process steg att övervaka	Parametrar	Målvärde	Uppmätt värde
	Förvaring/ lagring av mjölk	Lagringstemperat ur	6-8 °C	14 °C
	Varm	Typ av kultur	Mesofil	
	förmognad (med startkultur)	Mängd tillsatt kultur	0,8-1 %	
	star traitar j	Sensorisk kontroll	Culture defined	Stark jäst lukt
		Förmognads temperatur	31 °C	
		Förmognads tid	30 min	
		Surhetsgrad vid förmodandens slut	рН 6,55	

åtgärder			
Korrigerande åtgärder			
Mjölken pastöriseras före vidare bearbetning.Kylutrustni ng kontrolleras.			
Startkulturen kasserades och ersattes av DVS-kultur (direkt starter kultur).			

Production records

Enter the name of product you intend to compile a production record for.

Enter the procedural step appendant to the product.

Please enter the necessary recipe data to each procedural step.

Distinguished in colour or by short cut are **Recipe data**, **Food Safety Management System** as well as Please number all data for the reason of tracability and FSMS in column "Explanation".

Comment the highlighted procedural steps in a key.

Product	Semi hard sme				
Date					
Period of time	Procedural step	Parameter		Target value	Correction value
			R	Recipe data	
			F	FSMS	
			Т	Tracability	
	Milk storage	Kind of milk	R	cow milk	
		Age of milk	Т	Max. 12 h	
	1	Storage temperature	F	6-8 °C	
	Milk treatment	Heating temperature	F	Pasteurized milk (63 °C for 30 min)	
		Fat content	R	3.0 %	
	Hot pre- maturing of	Kind of culture	R	Mesophilic starter culture	
	milk (pasteurized)	Batch number	Т		
		Amount of culture	R	0,8-1 %	
		Sensory controll	F	culture defined	
	1	Inoculation temperatur	R	31 °C	
	1	Pre-maturing duration	R	30 min	
		Degree of acidification at the end of pre-maturing	R	6.55 pH	
	Curdling	Kind of lab-ferment	R	rennet	
	1	Batch number	Т		
		Activity of lab-ferment	R	1:15.000	
	1	Amount of lab-ferment	R	22 ml	
		Lab-ferment addition temperature	R	31 °C	
	1	Time to coagulation	R	20 min	
	1	Curdling time	R	50 min	
	Cutting	Cube size	R	5 mm	
		Degree of acidification prior to cutting	R	6.50 pH	
		Duration of curd treatment	R	5 min	
	Pre-caseation	Duration of stirring	R	15-20 min	
	Curd washing	Whey seperation	R	-30 %	

		Water addition	R	+10-15 %	
		Water temperature	R	30-35 °C	
		Degree of acidification after washing the curd	R	6.48 pH	
Post-he	eating	Postheating temperature	R	39 °C	
		Duration of stirring	R	20 min	
Post-ca	seation	Duration of stirring	R	5 min	
Whey separat	tion	Whey separation	R	-0-30 %	
Decanta pipe dir	ation via rectly	Degree of acidification prior to decantation	R	6,40 pH	
into the <u>or</u> deca through	e molds int firstly	Kind of mould	R	Semi hard cheese moulds	
in order seperat	r to te the	Size of cheese	R	Diameter 17-19 cm, Height 7 cm	
whey an decant moulds	nd then into	Weight of cheese	R	1.7-1.8 kg	
Cleanin	g	Kind of cleaning	R	according to R&D- Plan	
Drainin	g	Room temperature	F	20-24 °C	
		1. Turning	R	directly after decantation	
		Further turning	R	after 30 min, 1h, 2 h, 3 h, 5 h, 8 h	
Demou	lding	Degree of acidification during demoulding	F	5.15-5.20 pH	
Brining		Dwell period in brine	R	30 h	
		Batch number	Т		
		Temperature of brine	R	12-14 °C	
		Density of brine	R	17 °Bé	
		Degree of acidification of brine	R	5,10-5,20 pH	
		Salt content of cheese	R	1.5-2% NaCl	
Ripenin	ng	Room temperature	R	13-15 °C	
		Room humidity	R	85-90 % RLF	
		Maturation period	R	3 weeks	
Surface treatme red sme	ent with ear	Red smear solution	R	10% salt and Brevibacterium linens	
solutio	n	Batch number	Т		
		Start of smearing	R	on 2nd day of maturation	
		Smearing and turning	R	every 2 days	
Sale		Appearance	F	reddish peeling	
		Textur	F	sleek, smooth	
		Odour	F	aromatic	
		Flavour	F	strong, pure	

All target values have been reached, if not the variation had been filled in the column correction

Date:

Signature:

Trocobility			
Tracability.	 	 	
Explanation			
A	 	 	
1	 	 	
2			
С	 	 	
4			
D			

5			
6			
E			
F			
F		 	
7		 	
8			
9			
10			

value:			

Key FSMS

Fill in the product you intend to compile a key for.

Copy all procedural steps, parameters and target values from your production record.

State reasons in the last column ("Requirements"), why the particular target value has to t

Determine controll measures, if target value is not maintained.

FSMS	Procedural step	Parameter	Target value	Requirements
1	Milk storage	Storage temperature	6-8 °C	Storage temperature should not exceed 8°C, otherwise microbial growth is forwarded.
2	Milk treatment	Sensory control	63 °C for 30 min	The culture should taste, smell and look like it is particularly defined for it (for example not yeasty, without abnormal gas formation, pure).
3	Cold pre- maturing of milk	Sensory control	culture defined	The culture should taste, smell and look like it is particularly defined for it (for example not yeasty, without abnormal gas formation, pure).
4	Hot pre- maturing of milk	Sensory control	culture defined	The culture should taste, smell and look like it is particularly defined for it (e.g. not yeasty, without abnormal gas formation, pure).
5	Draining	Room temperature	20-24 °C	Room temperature has to be permanently between 20-24°C. If room temperature is too low, cooling-down of the cheese leads to a delay of acidification, which promotes unwanted microbial growth.

6	Shaping	Degree of acidification while shaping	pH 5.15 - 5.20	Degree of acidification should have fallen beneath pH 5.2 ready for the moulding process. A delay in acidification could promote unwanted microbial growth.
7	Sale	Appearance	reddish peeling	Aberration of appearance indicates an error in production process
8	Sale	Textur	sleek, smooth	Aberration of textur indicates an error in production process
9	Sale	Odour	aromatic	Aberration of odour indicates an error in production process
10	Sale	Flavour	strong / aromatic, pure	Aberration of flavour indicates an error in production process

Key tracibility

Fill in the product you intend to compile a key for.

Copy all procedural steps, parameters and target values from your production record.

State reasons in the last column ("Requirements"), why the particular target value has to t

Product Semi hard smear cheese

т	Procedural step	Parameter	Target value	Require
	Product name and date of production			In case of producing only or name and date of productio records definetly to the batc number is not necessary.
A	Milk storage	Age of mik	Max. 12 h	Declaration of the milk age milk delivery from your own compared with records from application of antibiotics).

В	Cold pre- maturing of milk	Batch number	(current batch number)	Cultures are generally provi by the contractor. Entering t production records, the part retrieved easily.
С	Hot pre- maturing of milk	Batch number	(current batch number)	Cultures are generally provi by the contractor. Entering t production records, the part retrieved easily.
D	Milk acidification	Batch number	(current batch number)	Lab-ferment is generally pro numbers by the contractor. your production records, the retrieved easily.
E	Brining	Batch number	(current batch number)	Salt is generally provided w contractor. Entering this nur records, the particular contr
F	Surface treatment with lubricating solution	Batch number	(current batch number)	Cultures for lubricating solur provided with batch number Entering this number in you particular contractor is retrie

be achieved.			
Controll measures			
Milk is pasteurised immediately before processing or batch in- question has to be highlighted and prior to sale put under end- product control. The refrigeration unit has to be checked.			
If time-temperature- interval falls below target value, heat treatment needs to be carried out again.			
In case of abberation the culture has to be replaced by a backup or a direct-set starter culture.			
In case of abberation the culture has to be replaced by a backup or a direct-set starter culture.			
Raise room temperature. In case of deficient acidification, batch in- question needs to be marked and prior to sale put under end-product control.			

In case of deficient acidification, batch in- question needs to be marked and prior to sale put under end-product control.			
In case of outward aberration, batches are prohibited to market.			
In case of textural aberration, batches are prohibited to market.			
In case of olfactory aberration, batches are prohibited to market.			
In case of flavourful aberration, batches are prohibited to market.			
be achieved.			
ments			
ne batch a day, product n allocate production h in-question. A batch			
facilitates retracing of a barn and can be easily the barn log (e.g.			

ded with batch numbers his number in your icular contractor is			
ded with batch numbers his number in your icular contractor is			
ovided with batch Entering this number in ∋ particular contractor is			
ith batch numbers by the nber in your production actor is retrieved easily.			
tions are generally 's by the contractor. r production records, the eved easily.			







Produ Enter the na	ction reco	intend to compile a production	n reco	rd for.		-		
Distinguisne	Distinguished in colour or by short cut are Recipe data, Food Safety Management System as well as Tracability.							
Product	Semi hard sme	ear cheese (Type Tilsiter)						
Date								
Period of time	Procedural step	Parameter		Target value	Correction value	Corrective action		
			R	Recipe data				
			F	FSMS Treashility				
	Milk storage	Kind of milk	R	cow milk				
	Milk Storage			Mox 12 h				
		Age of milk		6-8 °C	14 °C	Milk has been pasteurised		
				0-0 0	14 0	immediately before processing. The refrigeration unit has been checked.		
	Milk treatment	Heating temperature	F	Pasteurized milk (63 °C for 30 min)				
		Fat content	R	3.0 %				
	Hot pre- maturing of	Kind of culture	R	Mesophilic starter culture				
	milk (pasteurized)	Batch number	Т					
	(pasteurizeu)	Amount of culture	R	0,8-1 %				

	Sensory controll	F	culture defined	yeasty- smelling	Starter has been rejected and replaced by a direct starter.	
	Inoculation temperatur	R	31 °C			
	Pre-maturing duration	R	30 min			
	Degree of acidification at the end of pre-maturing	R	6.55 pH			
Curdling	Kind of lab-ferment	R	rennet			
	Batch number	Т				
	Activity of lab-ferment	R	1:15.000			
	Amount of lab-ferment	R	22 ml			
	Lab-ferment addition temperature	R	31 °C			
	Time to coagulation	R	20 min			
]	Curdling time	R	50 min			
Cutting	Cube size	R	5 mm			
	Degree of acidification prior to cutting	R	6.50 pH			
	Duration of curd treatment	R	5 min			
Pre-caseation	Duration of stirring	R	15-20 min			
Curd washing	Whey seperation	R	-30 %			
	Water addition	R	+10-15 %			
	Water temperature	R	30-35 °C			
	Degree of acidification after washing the curd	R	6.48 pH			
Post-heating	Postheating temperature	R	39 °C			
	Duration of stirring	R	20 min			
Post-caseation	Duration of stirring	R	5 min			
Whey separation	Whey separation	R	-0-30 %			
Decantation via pipe directly	Degree of acidification prior to decantation	R	6,40 pH			
or decant firstly	Kind of mould	R	Semi hard cheese moulds			

in order to	Size of cheese	R	Diameter 17-19 cm,		
seperate the			Height 7 cm		
whey and then	Weight of cheese	R	1.7-1.8 kg		
decant into					
 moulds					
Cleaning	Kind of cleaning	к	according to R&D- Plan		
Draining	Room temperature	F	20-24 °C		
	1. Turning	R	directly after decantation		
	Further turning	R	after 30 min, 1h, 2 h, 3 h, 5 h, 8 h		
Demoulding	Degree of acidification during demoulding	F	5.15-5.20 pH		
Brining	Dwell period in brine	R	30 h		
	Batch number	Т			
	Temperature of brine	R	12-14 °C		
	Density of brine	R	17 °Bé		
	Degree of acidification of brine	R	5,10-5,20 pH		
	Salt content of cheese	R	1.5-2% NaCl		
Ripening	Room temperature	R	13-15 °C		
	Room humidity	R	85-90 % RLF		
	Maturation period	R	3 weeks		
Surface treatment with red smear	Red smear solution	R	10% salt and Brevibacterium linens		
solution	Batch number	Т			
	Start of smearing	R	on 2nd day of maturation		
	Smearing and turning	R	every 2 days		
Sale	Appearance	F	reddish peeling		
	Textur	F	sleek, smooth		
	Odour	F	aromatic		

	Flavour	F strong, pure					
All target values	have been reached, if not the variat	on had been filled in the colu	imn correction	value:			
Date:							
Signature:							

