European Commission

Better Training for Safer Food

Initiative

Practical application of the alternative method for the identification of CCP

BTSF

Ethiopia, Addis Ababa – 2016

Food safety

PRINCIPLE OF OCCURENCE OF FOOD ACCIDENTS
(Biological, chemical, physical)

CAUSING ECONOMIC LOSS OR FOOD-BORNE POISONING

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ALL TYPES OF RISKS
Biological, chemical, physical
Stage of contamination

BIOLOGICAL RISKS
Bacteriological, parasitic
Stage of multiplication and/or survival

Lack of health control at recruitment (and later) OPERATORS

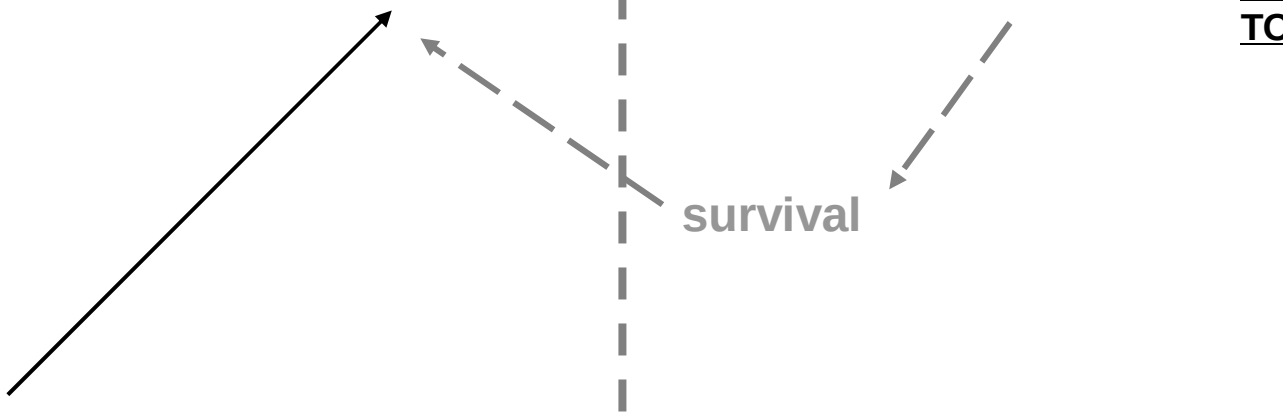
Lack of hygiene control in handling
CONTAMINATION

Lack of control of physicochemical parameters: time, T° pH, Aw

MULTIPLICATION

Over population of common flora and/ or disease bearing germs

LOSS
TOXI-INFECTION



ENVIRONMENT GERMS
Premises, tools,
Pests, raw materials

PRINCIPLE OF OCCURRENCE OF FOOD ACCIDENTS CAUSING ECONOMIC LOSS OR FOOD POISONING

KEY DEDUCTIONS OF THE DIAGRAM OF OUTBREAK OF ECONOMICAL LOSS OR FOOD-BORNE POISONING

The concomitant intervention of the contamination and the multiplication is essential to the appearance of a food accident

This diagram explains the mechanism of action of all the preservation methods, which reciprocally establishes its validity

- **total control of contamination or multiplication induces a long lasting preservation (canning, freezing)**

- **partial control of only one factor or of the both , induces a short lasting preservation (refrigeration, pasteurization)**

SPECIFICATIONS OF COMPREHENSIVE HYGIENE MANAGEMENT METHOD

METHOD FOR ASSESSMENT, PLUS IMPLEMENTATION OF A FOOD SAFETY MANAGEMENT SYSTEM

- *Assessment*

Consists in checking that all specifications (chapters of the manual of conditions of hygiene) are taken into account in the establishment.

- *Implementation*

Consists in designing modes of action to satisfy requirements ignored (or not correctly fulfilled) in the existing system of hygiene management

The Alternative Method to the Codex Alimentarius Decision Tree

Applicable to:

- food safety control means determination on a process (GHP/GMP or CCPs) by FBOs

- quick assessment of the FSMS applied on a process by inspectors/auditors

Microbiological risk's characteristics

3 components

- Contamination → Controlled by GHP & GMP non appropriate to CCPs implementation
- Multiplication, Survival → Depending on physicochemical parameters (Time, pH, Aw) suitable to CCPs implementation

"That is the reason why HACCP is essentially adapted and applicable to microbiological risks' control with very few exceptions":

- residues dilution or concentration in liquid foodstuffs
- neoformed substances by cooking and/or other heat treatments

Chemical & physical risks' characteristics

1 component

Contamination → Controlled by GHP & GMP Non appropriate to CCPs implementation

Flow chart Toma cheese

INPUT	CONTACTS	OPERATIONS	PARAMETERS	RISK	CONTROL MEAN
		storage			
		warming- up			
		adding morning raw milk			
		salt			
		2° warming- up			
		breaking curd/ rest			
		end of warming up put in small baskets			
		turning			
		seasoning			

C= Contamination M=Moltiplication

(m) microbiologic (c) chimical (p) physical

Flow chart Toma cheese

INPUT	CONTACTS	OPERATIONS	PARAMETERS	RISK	CONTROL MEAN
raw milk	tank	storage			
yeast	caldron	warming- up			
raw milk	containers	adding morning raw milk			
salt		salt			
rennet	containers	2° warming- up			
	blade	breaking curd/ rest			
	baskets	end of warming up put in small baskets			
	hands	turning			
	cave/room	seasoning			

C= Contamination M=Moltiplication (m) microbiologic (c) chimical (p) physical

Flow chart Toma cheese

INPUT	CONTACTS	OPERATIONS	PARAMETERS	RISK	CONTROL MEAN
raw milk	tank	storage	T° = 6 C°		
yeast	caldron	warming- up	T° = 37 C°		
raw milk	containers	adding morning raw milk			
salt		salt			
rennet	containers	2° warming- up	T° = 37 C°		
	blade	breaking curd/ rest			
	baskets	end of warming up put in small baskets	T°= 38-39 C°		
	hands	turning			
	cave/room	seasoning			

C= Contamination M=Moltiplication (m) microbiologic (c) chimical (p) physical

Flow chart Toma cheese

INPUT	CONTACTS	OPERATIONS	PARAMETERS	RISK	CONTROL MEAN
raw milk	tank	storage	T° = 6 C°	C(m,c,f) M	
yeast	caldron	warming- up	T° = 37 C°	C(m,f)	
raw milk	containers	adding morning raw milk		C(m,f)	
salt		salt		C(m,f)	
rennet	containers	2° warming- up	T° = 37 C°	C(m,f)	
	blade	breaking curd/ rest		C(m,f)	
	baskets	end of warming up put in small baskets	T°= 38-39 C°	C(m,f)	
	hands	turning		C(m,f)	
	cave/room	seasoning		C(m,f)	

C= Contamination M=Moltiplication (m) microbiologic (c) chimical (p) physical

Flow chart Toma cheese

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INPUT	CONTACTS	OPERATIONS	PARAMETERS	RISK	CONTROL MEAN
raw milk	tank	storage	T° = 6 C°	C(m,c,f) M	GMP:milking GHP: cleaning plan
yeast	caldron	warming- up	T° = 37 C°	C(m,f)	GMPraw materialGHP:cleaning plan
raw milk	containers	adding morning raw milk		C(m,f)	GMP:milking GHP: cleaning plan
salt		salt		C(m,f)	GMP raw material
rennet	containers	2° warming- up	T° = 37 C°	C(m,f)	GMP raw material
	blade	breaking curd/ rest		C(m,f)	GHP: cleaning plan
	baskets	end of warming up put in small baskets	T°= 38-39 C°	C(m,f)	GHP: cleaning plan
	hands	turning		C(m,f)	GHP: cleaning plan/ hands
	cave/cellar	seasoning		C(m,f)	GHP: cleaning plan

C= Contamination M=Moltiplication (m) microbiologic (c) chimical (p) physical

THANK YOU!

AESA Consortium

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