

HACCP

case study no. 1

(student's version)

Fresh cream and jam gateau

WHO / ICD

HACCP STUDY (CASE 1)

EXAMPLE OF HACCP PLAN FRESH CREAM AND JAM GATEAU¹

a. FACILITY

The purpose-built factory produces a variety of decorated gateaux for sale to the retail industry. The factory is based on a large new industrial estate and produces both chilled and frozen products.

b. PRODUCT

The product has a fresh cream and jam filling between two sponges. It is a chilled product and must be kept below 5 °C through the distribution chain. The shelf life is 3 days from date of manufacture.

c. MANUFACTURE

Sponge batters are baked at 150-170 °C through a travelling oven for 18.5 minutes. They are then cooled to ambient, automatically sliced and filled. There are a wide variety of fillings for the sponges. The sponges are flow-wrapped and put into cartons.

d. PRINCIPAL HAZARDS AND CONTROL MEASURES

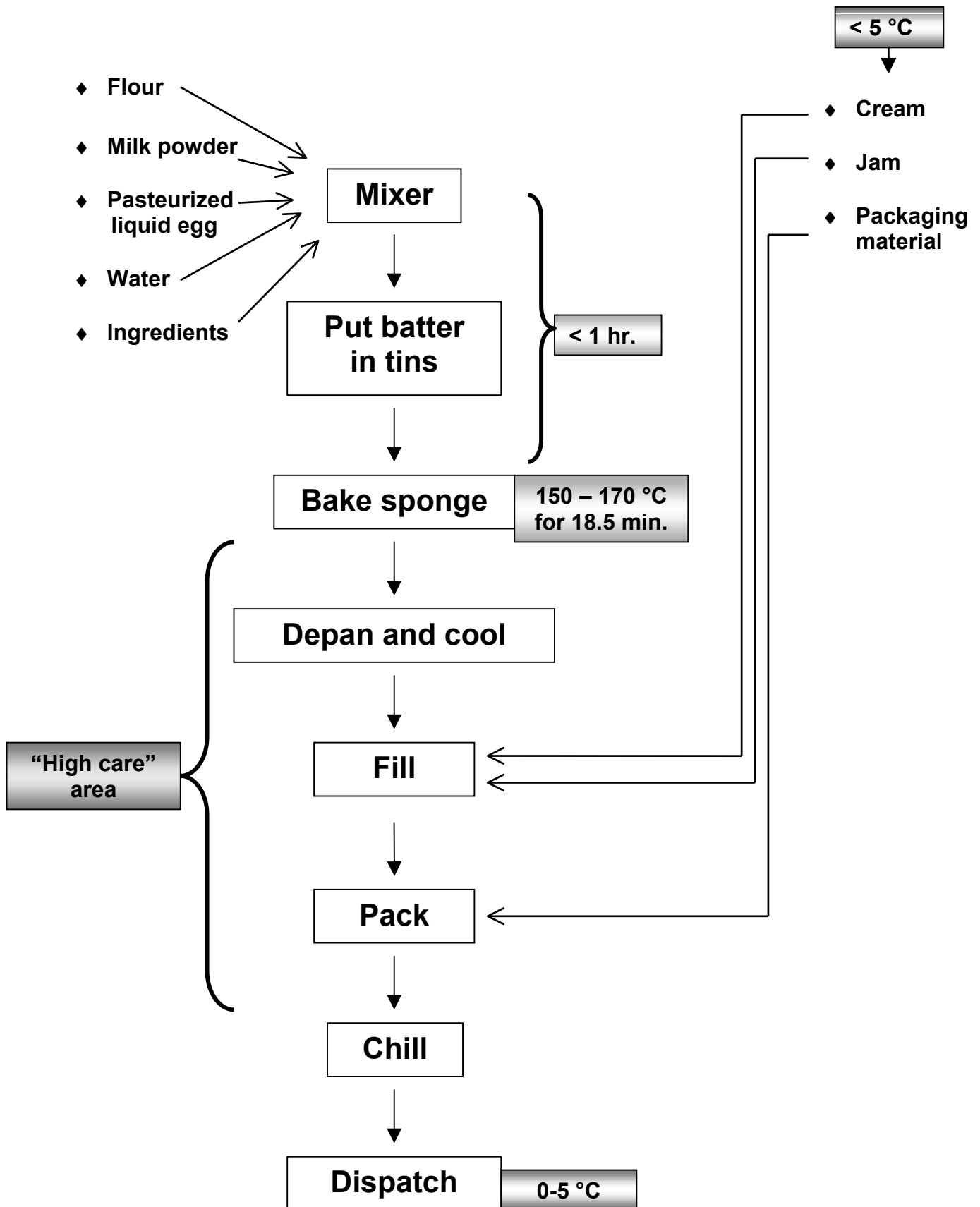
Principal biological hazards are the potential presence of pathogens in various ingredients and cross-contamination during processing. Control measures include approved suppliers and certificates of conformance, sensitive ingredient testing, baking and segregation.

e. INTENDED USE

The product is targeted at the general public and may therefore be consumed by high-risk individuals. *Salmonella* and *Listeria* control is therefore critical.

¹ This study was partly reproduced and adapted from Sara Mortimer and Carol Wallace; HACCP, a practical approach, Chapman & Hall, 1994

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Example of HACCP data sheet

Case 1

Process step	CCP No.	Hazard to be controlled	Control measures	Critical limits	Monitoring		Corrective actions	Responsible person(s)
					Procedure	Frequency		
Incoming raw material Flour	1.1	Aflatoxin	Obtain Certificates of Analysis from suppliers	Aflatoxin: < 10 mg/kg	Inspect Certificate of Analysis	Every batch	Reject batch	Incoming Goods Clerk, Supply QA Manager
Mains water	1.2	Chemical contamination	Carry out on-site micro checks and obtain Certificate of Analysis of local sample- Water Authority	Chemical contamination (see spec.) Regulatory Compliance	Testing to include toxic substances <i>Giardia/ Cryptosporidium</i> Inspect Certificates of Analysis from Water Authority	Weekly	Contact Water Authority	QA manager
Jam	1.3	Pesticide residues	Certificates of Analysis from approved supplier	Within legal limits	Inspect Certificate	Annually	Contact Purchasing Manager	SQA Manager
					SQA Audit	Annually		SQA Manager
Cream	1.4	<i>Salmonella</i> and <i>Listeria</i>	Supplier Quality Assurance System	Absent/25 g	Laboratory tests <i>Listeria, Salmonella</i> , Procedure No s xxx	Every delivery	Reject batch	QA Manager
			Approved supplier	Inform purchasing	SQA audit	6-monthly		SQA Manager

Example of HACCP data sheet (cont.)

Case 1

Process step	CCP No.	Hazard to be controlled	Control measures	Critical limits	Monitoring		Corrective actions	Responsible person(s)
					Procedure	Frequency		
Storage of raw material	2	Physical contamination, biological growth	Store as specified, i.e. cream < 5°C, egg for specified max. time. Keep covered	No physical, chemical contamination. Maintain temp. < 5°C	Automatic temperature recorder. Visually inspect label to ensure stock rotation	Daily checks – continue during use. Every batch	Hold and inform QA Manager	Warehouse Manager and Operator
Bake sponge through oven	3	Survival of vegetative pathogens	Bake sponge at specified time/temperature	Bake at 70°C for 2 min. minimum core temperature	Automatic chart recorder	Continuous	Stop production. Reject faulty product. Adjust oven temp./time	Operator
Metal detect	4	Metal contamination	Metal detector	Absent – ferrous 2.0 mg, non-ferrous 2.5 mg	Metal detection check using test pieces. Calibrate metal detector	Every 30 min. Daily	Stop line, recalibrate, notify QAM. Hold stock manufactured since previous check	QA Inspector Line Engineer
Dispatch	5	Growth of pathogens	Low temperature during storage and distribution	0-5°C	Continuous chart recorder – warehouse and distribution vehicle. Check recorder calibration	Daily review Monthly	Hold, inform QAM, Sample and test product	Warehouse Manager Transport Manager Warehouse Manager

VERIFICATION

Case 1

What?	Why?	When?	How?	Action in case of deviation
Finished product <i>Listeria</i> testing	Check conformity with criterion Absence in 5 x 10g	1/week	ISO method	Find cause, Improve HACCP plan
Monitoring records review	Check adherence to HACCP plan	1/week	Inspection	Correct, Train, Improve