

## 35309 - Food Safety and Traceability - (module 1, 24 hours)

Students must know hygiene and technology of the dairy products starting from primary production to distribution. The SCC, total bacterial count, freezing point physical, biological and chemical hazard along the dairy chain will be treated; technologies of treatment and cheese making and their critical points for food safety and methods for their control will be explained.

### Lessons

Subjects and skills acquired	Specific contents	Hours
<b>1 HAZARD IN THE DAIRY CHAIN:</b> <i>knowledge on hazard in the dairy chain: biological, chemical and physical hazards. Control of hazards in the primary production</i>	Source of biological, chemical and physical hazards in the dairy chain and their occurrence	3
	Chemical hazards Source, management and control of aflatoxins, environmental contaminants, veterinary drugs residues in milk	3
	Biological Hazards Tuberculosis, brucellosis, and other foodborne diseases due to the consumption of milk and dairy products	3
<b>2. DAIRY TRANSFORMATION:</b> <i>knowledge on methods of dairy transformation, control of hazards during transformation and inspection of the dairy products</i>	Pasteurized and UHT liquid milk, cheeses, whey cheeses, acidified milk products, other dairy products; hazard identification and control during dairy transformation	4
	Physical and chemical parameters useful for milk and dairy inspection: freezing point, RSM, phosphatase, peroxidase, furosine, total bacterial count, protein, casein, fat and lactose content of milk and dairy products	4
<b>3. LEGISLATION:</b> <i>ability to identify legal requirements applicable to the dairy production chain</i>	Legislation on the primary production: requisites due for animals, facilities, equipment, management and milk during the primary production	3
	Legislation on dairy transformation: milk collection, temperature control, requisites for trucks, cleaning and disinfection, milk and dairy product storage, pasteurization, chemical and microbiological requisite (hygiene and safety objectives) of dairy products	3
<b>4. WRITTEN TEST</b> <i>Assessment of acquired knowledge and skills</i>	Written test on the course content Test correction and results discussion	1

### Practical training – Module 1

Subjects and skills acquired	Specific contents	Hours
<b>5 TRACEABILITY AND SAFETY REGULATIONS</b> <i>acquisition of: a) the ability to correctly identify the</i>	Identification of the regulations applicable to breeding farms and to milk processing	2
	Check on the production flow of a dairy farm and cheese factory	2

<i>regulations applicable to a dairy operation; b) the ability to analyse an operative food business and identify hazards and methods for their control</i>		
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### **35309 - Food Safety and Traceability (module 2, 12 hours)**

**Course training objectives: at the end of the course student** learns and knows:

- principles on food safety legislation (Reg. EC 178/2002);
- principles on internal traceability and food chain traceability;
- principles on food labelling;
- legislation on traceability and labeling of food of animal origin.

<b>Subjects and skills acquired</b>	<b>Specific contents</b>	<b>Hours</b>
<p><b>1. REGULATION EC 178/2002</b> <i>Acquisition of correct terminology and ability to apply the concepts in the field of food safety</i></p>	<p>Explanation of the course program, the assessment method and management course materials Reg. EC 178/2002:</p> <ul style="list-style-type: none"> <li>• EFSA and RASFF</li> <li>• risk analysis</li> <li>• precautionary principle</li> <li>• food and feed safety requirements and traceability</li> <li>• recalls</li> </ul> <p>Reg EU 931/2011: traceability requirements for food of animal origin</p>	4
<p><b>2. TRACEABILITY</b> <i>Acquisition of correct terminology and ability to develop traceability systems</i></p>	<p>Basic principles on internal traceability and food chain traceability</p>	2
<p><b>3. FOOD LABELLING</b> <i>Acquisition of correct terminology and ability to apply the concepts in the field of food labelling</i></p>	<p>Reg EU 1169/2011: food labeling</p>	3
<p><b>4. TRACEABILITY AND LABELLING OF FOOD OF ANIMAL ORIGIN</b> <i>Acquisition of the ability to apply the concepts in the field of food traceability and labelling</i></p>	<p>Traceability and labelling of food of animal origin:</p> <ul style="list-style-type: none"> <li>• Bovine meat</li> <li>• Pork</li> <li>• Egg</li> </ul>	2

<b>5. WRITTEN TEST</b> <i>Assessment of acquired knowledge and skills</i>	Written test on the course content Test correction and results discussion	1
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