

LE RÉSEAU FORMATION EN INDUSTRIE LAITIÈRE ANFOPEIL - ENIL

DETAILED DESCRIPTIVE OF THE COURSE N°34

USING AND CONTROL OF LACTIC AND RIPENING STARTERS IN CHEESE TECHNOLOGY

ORGANISATION

Date: From 11/09/2024 (starts 8:00) to 13/09/2024 (ends 5:00)

Duration: 3 day course – 21 hours

Trainer: Pascal Ratouit

Cost: € 1910

Location: Surgères

Training language: English

Who we are: As a member of the National Dairy Schools Network and the European Association of Dairy technologists, our school trains students and dairy professionnals from all over the world.

INFORMATION AND REGISTRATION

ENILIA-ENSMIC Tél.: 05 46 27 69 00

Contact: Emmanuel AUDEBERT emmanuel.audebert@educagri.fr

ANFOPEIL

Tel.: 03.84.37.27.24 accueil@anfopeil-enil.fr

PUBLIC ET PREREQUISITE

Manufacturing managers, team leader R&D people

Remarque : Le dispositif de FOAD / e-learning : Webalim™ peut être mis en

œuvre pour atteindre ou valider ces pré-requis.



CONDITIONS

In the case of an insufficient number of participants, ANFOPEIL may cancel or postpone the training course. The applicant will be informed of this decision at least 2 weeks before the starting date of the training course.

TEACHING METHODS

Theoretical courses will be supplemented by practical works in the technological hall of ENILIA. A tasting session will be planned in order to identify the specificity, appearance and impact of the ripening starters.

GLOBAL OBJECTIVES

At the end of the training, trainees must be able to:

- Identify and understand characteristics of lactic and ripening flores.
- Assess their growth conditions and interactions.
- Target key points in their preparation and implementation





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- Identify their selection criteria according to objectives and industrial site.
- Understand the major impact of bacteriophages in the fermentation process
- Proceed accordingly in order to limit and control risks.

PROGRAMME

Trainees reception and training presentation

Generalities, characteristics and particularities of lactic bacteria:

Roles and interests.

Classification, genera and specificities.

Reproduction, growth and parameters of influence

Biodiversity, impacts of the modern cheese factory, Rio convention, collections management.

Use of lactic starters in cheese technology

Place of lactic starters in the cheese making process.

D.V.I vs Bulk set: Features, advantages and disadvantages.

Conduct of maturation, management and monitoring of acidification parameters.

Bacteriophage: Mechanisms, risks, control, prevention, Crisp-R technology.

Selection and management of lactic starters:

Criteria for the selection of lactic starters

Freeze-dried/frozen/liquid forms: Features, advantages and disadvantages.

Reception, control and storage.

Implementation of lactic starters, handling, security and storage

Generalities, characteristics and particularities of ripening starters:

Penicillium *candidum*, Geotrichum *candidum*, yeast, flavouring bacteria, corynebactéria, Penicillium *roqueforti*

Characteristics and taxonomy.

Roles, interests in cheese making and organoleptic impacts.

Growth, influencing factors, interactions and conditions of use.

Selection criteria, form and presentation, implementation and storage.

Interactions between lactic starters and ripening starters.

Key role of acidification for the control of the ripening.

- pH, MCFFC, aw, minéralization, residual sugars and influences on ripening.

Conclusion and assesment of the training.

Note: Content can be adapted according to the trainees needs

ASSESSMENT

The trainees will be assessed at the end of each training course in the form of questionnaires, oral evaluation with the trainer or practical tests. The type of assessment will depend on the topics covered on the course and the type of activities (theory and/or practical).

TRAINING COURSE VALIDATION

A document and a certificate will be awarded to the trainee and/or the trainee's company At the end of the course the trainee will be able to validate a block of skills after deliberation by the certification commission of the Enil Certification Body.