Development of an online educational platform as support to the small dairy producers facing the problems during cheese production

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MILK-ED: Modern and Innovative-based Know-how on European Dairy processing

KA2 - Cooperation for innovation and the exchange of good practices
KA202 - Strategic Partnerships for vocational education and training

SIRENA: Modification of cheese ripening process and whey product development

Statement of the Problem

The demand for professional knowledge of milk processing has recently increased in consortium countries. Increasing demand for training is mainly expressed by farmers and their (family) members who are interested in on-farm dairy processing on a smaller scale. The only way to keep their farm alive is by adding value by processing the milk into dairy products, e.g., cheese. Maintaining the microbiological quality of cheese throughout ripening is one of the major problems faced by small cheese producers. Because of the cross contamination, and inability to maintain and control the atmosphere quality in the ripening chamber, small cheese producer have major problems with moulds and yeast development which adversely affects cheese microbiological and sensory properties.

The aim

Development of an online platform with training programme that is going to equip farmers with the necessary knowledge, skills and competencies for the establishment of an on-farm dairy processing multifunctional activity.

Methodology & Theoretical Orientation

Research team held several meetings with the representatives of small dairy producers from different parts of the country, in their homeland, to determine problems they encounter during production and to discuss about the improvement abilities based on recent findings. On top of that, the basis for the development of the uniform online educational platform was set, on which all producers could be connected to share their knowledge and consult about their problem with dairy experts.

Croatian family farms involved in research:

- OPG Ciganović (donkey breeding, production of donkey’s milk and donkey’s milk cosmetics)
- OPG Grčević (goat farming and cheese production from goats’ milk)
- OPG Zadračev (home-made cheeses and dairy products from cows’ milk)
- OPG Tomaić and Dairy “Runolist” (production of cheese from cows’, goats’ and sheeps’ milk)

Most of the small cheese producers reported following problems:

- financing problems related with market demands
- cheese hygiene during ripening process (moulds, yeasts)

To meet today’s financial challenges most of the interviewed small producers are focusing on engagement in rural tourism.

Collected findings slightly differed depending on the location of the production facility.

Main results

- Case study for each small family farm

Case study will be a basic component of a training programme (learning through the analysis of real, successful entrepreneurial initiatives related to dairy processing).

Research team identified the need of several training and seminars related to finance with an emphasis on the banking sector as well as tourism management, as well as education related to ripening for those cheese producing family farms.

Significance and Future perspectives

Educational online platform will enable easier problem-solving with expert counselling and provide multiple training and seminars depending on the needs of the small producer and will enable easier dissemination of novel findings in dairy sector.

Affordable methods for preventing the contamination during cheese ripening was pointed out as interesting to small producers, so should be one of the curriculum topics.

Recent publications pointed the possibility of application of modified and ozonized atmosphere or overpressure during ripening in chambers for optimization of cheese hygiene and microbiological properties, so a further research is planned trough SIRENA project focusing the application of such contamination reducing methods.

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