

BIOSECURITY OF TRADITIONAL PRODUCTS OBTAINED FROM SHEEP AND COW GRAZING IN ALPINE CONDITIONS OF THE COM. DOFTANEI VALLEY, JUD. PRAHOVA

Ioana COJOCARU¹, Andrei TANASE , Dorin TOGOE, Alexandru VITALARU²

¹CSV Doftana Valley , Jud. Prahova,Romania,Phone:+40720255605,Email:polivet37@gmail.com

²University of Agronomic Sciences and Veterinary Medicine of Bucharest,
University of Veterinary Medicine of Bucharest,Splaiul Independentei, nr.105 Bucharest, Romania,
Phone:+4021.224.19.92, Email:vetandrei@yahoo.com

Corresponding author email: polivet37@gmail.com

Abstract

Alpine Grazing is a common practice used in sheep and cattle breeding. Milk from this number is processed and converted into local traditional products. Biosecurity products is ensured mainly by the short time between milking and processing , which prevents the multiplication of germs of any kind. Laboratory determinations ; TPC(total plate count) made for control and detection of pathogens (E. coli) show that TPC(total plate count) is lower than for analyzes of milk from farms organized and collected , harvested at the factory for processing

Key words: biosecurity, traditional products, conditions, Alpine Grazing, milk.

INTRODUCTION

Alpine grazing is a practice commonly used in Romania , which exploits both feed resource exploitation and maximum biosecurity conditions resulting from livestock products . ValeaDoftanei ranks first, as a territory in Prahova County. The exploitation of animals in summer especially sheep and cattle herd is widely practiced with satisfactory economic results . Products of processed milk that comes from these animals is mainly represented by a traditional product registered as „OSIM Nr.1042439/29 August 2007”that is also called traditional cheese and bellows cheese .

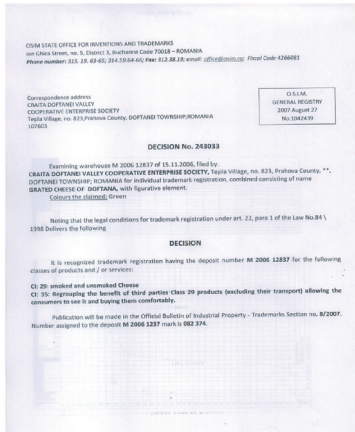
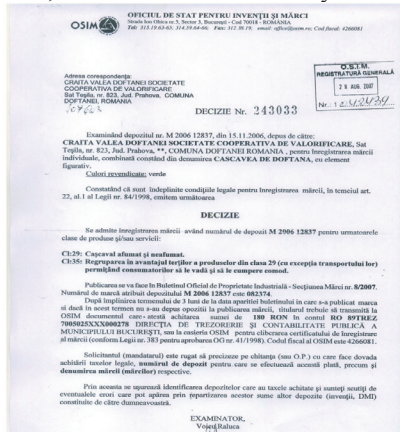
MATERIAL AND METHODS

Operating conditions of sheep and cattle grazing system were studied and also the conditions of biosecurity alpine and alpine grazing, specific biodiversity and the obtaining of milk and it's products. This study was conducted mainly aiming at the requirements of Regulation (EC) No 852/2004 as amended and updated, which

refers to a high level of consumer protection in the field of food safety. Foodtraceability is an essential element in ensuring food safety and hygiene requirements for structures that are covered by this Directive were also followed when analyzing the criteria that must be met to obtain raw milk for dairy products. Laboratory test results were compared with EC Regulation No 852/2004 and the results obtained from milk samples from industrial farms for processing. The samples were analyzed for udder hygiene before milking, milking time elapsed until the milk thermal processing, hygiene conditions in the milk processing room, sanitation conditions used for milk processing machinery, materials used for manufacture of containers for milk processing compliance of temperature, of preventing the bacterial growth during transport and processing of milk. Another direction was tracking healthy exploited animals. Animal health requirements mainly refer to contagious diseases that can be transmitted to humans through consumption of milk and milk products. These measures mainly refer to udder health and the general health of the animal. The anthrax

vaccination follows immunization of all animals, bovine tuberculin of the entire population by TCS. Serology for brucellosis and enzootic bovine leukosis, carried to its full and effective control of bovine paratuberculosis in 12% of the herd, the animals were randomly selected.

For herd of sheep were effectively controlled serological 5% for Brucella ovis and Melitensis.



RESULTS AND DISCUSSION

Obviously CSV Doftanei Valley, which plans to vaccinate against anthrax the entire cattle and sheep population in the territory of the constituency, it follows that in 2014 all cattle aged over 2 months were vaccinated and all bovine aged over 6 weeks tuberculinated and those over 24 months were checked serologically for brucellosis and LEB and for 12% of the actual paratuberculosis. The entire flock of sheep with a 2 months of age were vaccinated against anthrax, campaign at the beginning of the second quarter (April-May) before departure to alpine meadows. Also 5% of the actual sheep site over 12 months of age were blood sampled for brucellosis species *Ovis* and *melitensis*. We mention that in CSV records that matched records Doftanei Valley Record DSV epidemiological Prahova Valley CSV across Doftanei, not in the last 10 years there have been no cases of Anthrax, Brucellosis, Tuberculosis and LEB. From the above, it is found that the animals are free of diseases communicable to humans, so the milk can be used without restriction for consumption and processing in agreement with Directive 64/432 / EEC (1) and Directive 91/68 /

EEC (2) . Regarding tuberculosis, the TCS results correspond Directive 64/432 / EEC. Milking animals is done manually in aluminum containers, observing the conditions of the udder before milking Zoo-hygiene by washing with water; transport of milk over a distance of between 20-50 meters from the animal and to the storage location is the same container and lasts about 2-4 minutes and milk storage space is located in a room protected by natural weathering in a container that is located above a heat source that provides the required temperature for heating (pasteurization) milk. The heat treatment is within the Regulation (EC) No 852/2004 Annex II, Chapter XI and was controlled at harvest samples by thermometry and was registered as a temperature between 60 and 70 degrees Celsius on a time interval 8-18 minutes. Milk samples were taken before storing the container for pasteurization for TNG's determination and transport temperatures of 4 degrees Celsius and a time delay to an approved laboratory (the time required to transport the two hours).

In all 5 samples collected NTG was as follows: the sample 1, 3 and 5 was 50.000, the sample 2 and 4 was 45.000.

It was the thermometer outdoor air temperature at the time of milking, finding a value of 8.5 degrees Celsius.

Milk is processed further washed with water collected in gauze temperatures exceeding 90 degrees Celsius and dried in natural conditions, then transferred in spaces specially arranged for the complete separation of the serum and the formation of the final product.

Containers used for pasteurization and getting cheese are made of metal and wood, with the possibility of proper sanitation.

Compared to the European Community Directives and Regulations 852/2004 and 853/2004, getting milk products in alpine grazing conditions meet all requirements and biosecurity products is achieved due to ambient temperature at milking (8.5 degrees Celsius) in August, short time needed milking and milk transport (about 5-10 minutes), pasteurization immediate health of the animals together not allow multiplication of bacteria in milk even if some links of the technological process are certain glitches regarding observance of hygiene conditions during milking, milk storage and processing. Sanitation samples also show that at least in terms of milk NTG, this is below the maximum allowed by almost 50%. Samples of the equipment used in the processing of milk were also below the maximum limits, absolute value of 18/cm² without coliform bacteria of 10/cm² and no bacteria were detected sampling species belonging to the genus *Escherichia coli* or *Salmonella*.

Even if the EC Directive No. 852/2004 as specified in point 3 this Regulation shall not apply in the following circumstances :

- a) primary production for private domestic use ;
- b) preparation, handling and storage of food (particularly dairy products) in order private domestic consumption ;
- c) the direct supply by the producer to the final consumer or to local retail establishments that provide products directly to the end consumer with small quantities of primary products

However, the present experimental points out that dairy farming in alpine grazing conditions meet in a proportion of 95 % European Community directives .

CONCLUSIONS:

Biosecurity milk products processed in alpine grazing conditions in the village Doftanei Valley, Prahova County is at a maximum.

Biosecurity milk products in terms of obtaining them at an altitude of over 1,400 meters is provided by the absence of chemical treatments of alpine grassland, lack of pollution sources of any kind, the health of farm animals, animals allowance against communicable diseases, low ambient temperatures at the time of milking and the short time needed to process milk.

REFERENCES

- Banu C.2002.Calitatea si controlul calitatii produselor alimentare .Bucarest. Edit Agir
- Banu C. 2008.Tratat de industrie alimentara.Bucharest, edit ASAB
- Croitoru C. 2013.Analiza senzoriala a produselor agroalimentare, vol I Bucharest.Edit Agir
- Mihaiu M. 2013.Analiza senzoriala. Brasov, Edit.Universitatii Transilvania
- Neagu I., Savu C., Mara Georgescu, Savu O., Anca Alexandra Dobrea, Elena Nistor, 2014.-Study regarding microbiological pollution of curd obtained with a traditional technology- Journal of Biotechnology, Volume 185, Supplement, September 2014, Pages S77-S78.
- Neagu I., Savu C., Savu O, 2013. - Nutritional quality of some traditional romanian cheeses. Current Opinion in Biotechnology, Volume 24, Supplement 1, July 2013, Pages S87-S88.
- Savu C.2013.Controlul de laborator al alimentelor de origine animala. Trargoviste Edit,Transversal
- Savu Ovidiu, Ilie Lucian Ionel, Niță Caragață. 2014. Editura Știința, tehnologia și calitatea alimentelorBibliotheca, Târgoviște, ISBN 978-973-712-947-5.
- Ministerul Agriculturii și Dezvoltării Rurale; Oficiul national al produselor traditionale si ecologice romanesti. Atestarea , inregistrarea si protectia produselor agro-alimentare romanesti.
- Ministerul Agriculturii și Dezvoltării Rurale; Oficiul national al produselor traditionale si ecologice romanesti. Promovarea produselor traditionale romanesti la nivel national si in U.E.
- Directiva 64/432/CEE
- Directiva 91/68/CEE
- Directiva 98/8/CE 16.02.1998
- Regulamentul CE 852 /2004
- Regulamentul CE 854/2004
- Ordinul nr. 976/16.12.1998
- Ordinul nr. 724/1082/360/2013 privind atestarea produselor tradiționale