

- Bricker B.J. & Holling S.M.** Differentiation of brucella abortus bv 1,2 & 4, & B. melitensis, B. ovis & B. suis bv 1 by PCR. Y. Clin, Faqe 2660-2666, Microbiology 32, 1994.
- Casos Y & bp.** Decetion of brucella with on automatic homoculture system. Bact/Alert. Enferm.Infeç.Microbial.Clin 12, Faqe 497-500, 1994.
- Carbel M.Y.** Brucellosis on overview emerging infect., Dis.3, Page 213-221, 1997.

### DEFINITION OF PHYSICOCHEMICAL PARAMETERS OF COW'S MILK

Rabchenko O, Zubritskaja T - students  
of 2 courses of Engineering Technological Faculty  
Scientific advisers: Kudyenko T.G., Maljevsckaja E.V., Tsvetnitsckaja E.V. -  
assistants of Chemistry Department.  
Grodno State Agrarian University,  
Tereshkovoi-28, Department of Chemistry,  
230008, Grodno, Belarus.  
e-mail: lena7843041mal@rambler.ru

#### ABSTRACT

Milk is one of the most valuable food stuff. It contains all nutrients necessary for human life. Quality of milk as uniform physicochemical system depends on characteristic of components containing in them. Therefore, any changes in content and condition of milk components should be accompanied by changes of its physicochemical properties.

Definition of physicochemical properties of unboiled cow's milk from various settlements of the Grodno region with aim of definitions of its quality was the task of this work.

Indexes of acidity and density were studied in this work. Acidity of milk is determined by method of acid-base titration and potentiometry. Titratable acidity of (oT) milk depends on a ration of feeding, breed, age, individual features of animal. Rise of acidity of milk to 20-25 oT as a rule depends on deficient quantity of salts of calcium in forage. Besides, acidity of milk increased at storage at development in them of microorganisms. Deacidification of milk can be caused by its falsification, notably by dilution by water.

At dilution by water tightness and weight fraction of neutral fat is reduced. It is considered to be that tightness of milk decreased approximately on  $3 \text{ kg/m}^3$  on each ten percent of added water. For natural milk tightness is  $1029 \text{ kg/m}^3$ . Removing of cream or dilution by skim milk (which tightness make up  $1033 - 10.35 \text{ kg/m}^3$ ) caused by rise of tightness. Change of milk density also caused by various diseases of animals, for example mastitis.

Thus, on base of received results was established that physicochemical parameters can variety under the influence of various factors (phase of lactation, diseases of animals, etc.), and also at milk falsification. Therefore their definition allows estimating of naturalness, quality and suitability of milk to processing in different dairy products.

### **PHYSICAL CHARACTERISTICS OF SEA BUCKTHORN BERRIES GROWN IN 2007**

Piret Raudsepp, Tiina Lõugas

Department of Food Processing, Tallinn University of Technology, Ehitajate tee  
5 Tallinn 19086 ESTONIA  
e- mail: [piretra@hot.ee](mailto:piretra@hot.ee)

#### **ABSTRACT**

Sea buckthorn (*Hippophae rhamnoides* L.) is a native bush to Europe and Asia that produces orange to yellow berries. Its berries have a wide range of uses in medicine and also in food industry.

Harvested sea buckthorn berries proceed to several processing operations which all emphasize knowing all the necessary data about their physical properties like size, shape, weight, moisture content and firmness.

Size and shape showing the uniformity are important features to achieve the highest level of efficiency in processing. Moisture content refers to the juicy of the berries. Force and energy required to rupture the sea buckthorn berries depend on several factors as the strength of the skin, the firmness of the flesh, the viscosity of the juice, the turgid pressure, and the size of the fruit.

#### **INTRODUCTION**

Sea buckthorn (*Hippophae rhamnoides*) is native to Eurasia and the plant is noted for its impressive range of uses: for soil conservation, as an ornamental, in the tea industry, and especially as a fruit, which is rich in vitamin C and other nutritional and bioactive compounds (Tang, 2000).