

## **ABSTRACT**

Increased cattle production is a special department of animal husbandry, which, both now and in the future, is and will be the attention of specialists, given the importance of this sector to the national economy. The ability to harness biological nutrients in feed products for human food very valuable, raising cattle contributes to living it. The current global situation shows that with increasing living standards of human consumption weight loss foods of plant origin for the animal. Cattle are important economic, social and environmental particular because they provide a large and diverse production and animal products of primary importance for household consumption as raw material for manufacturing.

Is currently assessing the milk, depending on the content and quality parameters that will influence the course, the price that the processor will pay for raw materials. Failure of these parameters will lead to product rejection.

The thesis includes 221 pages and is written in chapters VIII and is structured according to the criteria in force in two parts. The first part (chapters I, II and III) summarizes the main bibliographic data in the literature concerning bibliographic data on afecițiunile genital, mammary and acropodiale in cattle nutrition and biological characteristics of cow milk and EU requirements on milk biological cow, and is current state of knowledge and Part 2 (Chapter V, VI, VII) relates to their research. Each chapter in Part 2 has included material and working methods, the results with their discussion and partial conclusions.

Chapter VIII are summarized in cele 30 final conclusions, key issues drawn from the investigations.

The book is illustrated with a number of 37 figures, 53 tables and is based on 159 bibliographic titles.

Research goal was to correlate some constant indicating nutritional quality, hygienic and biological milk obtained from cows with severe Dorna Basin breast, genital and acropodiale by determining parameters such as:

- influence genital diseases, breast and acropodiale on physico-chemical parameters of cow milk;

- - Influence of genital disease, breast and biological parameters acropodiale on cow milk;
- - Influence of sex diseases, breast and the total number of germ acropodiale on aerobic mesophilic and somatic cells in cow milk;
- Statistical evaluation of biological impairment in diseases genital cow milk, breast and acropodiale;
- Economic evaluation of biological impairment of cow milk in genital disease, breast and acropodiale;

The quality of milk obtained from Brown breed is better with a added value due to its high in fat (4 - 4.5%) and protein (3.5 - 4.8%). It also is very good quality protein, containing very high for casein (78% of total milk protein), especially k-casein. Brown breed cows produce milk containing the 7-8% more calcium and phosphorus, more lactose, but less chlorine, which makes the milk to be more tasty.

Following investigations the group from healthy animals, the physical-chemical parameters of milk were found following results: the amount of fat varied the minimum and maximum 3.59% 5.30%, the percentage of protein presented a maximum of 3.59% with a minimum of 2.42%. Lactose showed maximum values of 5.02% and 4.59% minimum values and SUD% had maximum values of 9.21% and 7.89% minimum.

As the pH and temperature of milk collected from healthy cows lot they were: for pH values were 6.81 maximum and the minimum of 6.75, acidity ranging within 15 to 15 , 50t.

Compared with healthy control group in physical and chemical parameters examined in group subclinical mastitis cows varied amount of fat in the minimum and maximum 3.14% 4.33%, the percentage of protein had a maximum of three , 90% with a minimum of 3.12%. Lactose showed maximum values of 5.13% and 4.53% minimum values and maximum values SUD was 9.38% and 8.77% minimum.

PH and temperature of milk collected from cows with mastitis subclinical group were: for pH values were maximum and the minimum 6.75 6.80 acidity ranging between 15 - 160 °. In this case we have not revealed major changes in these parameters compared with controls.

Compared with healthy control group in physical and chemical parameters examined in clinical mastitis group of cows with varied amount of fat in the minimum and maximum 3.14% 4.29%, the percentage of protein had a maximum of 4 , 02% with a minimum of 3.12%. Lactose showed maximum values of 4.98% and 4.27% minimum values and maximum values SUD was 9.47% and 8.77% minimum.

pH and acidity of milk collected from cows with mastitis clinical group were: for pH values were maximum and the minimum 6.75 6.80 acidity ranging between 15 - 160 °. In this case we have shown the same values as for subclinical mastitis consignment., Subliind that irrespective of these parameters retain their values mastitis in both forms of mastitis.

In the physical and chemical parameters examined in the group of cows with endometritis varied amount of fat in the lower limit of 2.67% and 5.47% maximum, the percentage of protein had a maximum of 3.82% with a limit minimum of 2.47%. Lactose showed maximum values of 5.11% and 3.56% minimum values and maximum values SUD was 9.24% and 7.88% minimum. PH and temperature of milk collected from cows with endometritis group were: for pH values were maximum and the minimum 6.47 6.80 acidity is in the range of 15 to 22.50 T.

If physico-chemical parameters examined in group pododermatită amount of fat cows varied in the minimum and maximum 2.26% 3.20%, the percentage of protein had a maximum of 3.25% with a limit minimum of 2.73%. Lactose showed maximum values of 5.18% and 4.78% minimum values and maximum values SUD was 9.00% and 8.35% minimum.

PH and temperature of milk collected from cows with pododermatită group were: for pH values were maximum and the minimum 6.60 6.80 acidity ranging between 15.5 - 170T.

The presence of a large number of somatic cells in milk is hygienic and sanitary significance and technological significance, influencing and shelf-life milk somatic cell count milk cows with good health and well-being varies between maximum value - minimum based on race, age, physiological status of the lactating mammary gland.

Biological parameter values, the NCS / ml in healthy control group revealed the following limits: NCS / ml had maximum values and minimum values of 2.000/ml 175.000/ml so by enrolling in the EU requirements

Biological parameter values, the NCS / ml in the group with subclinical mastitis revealed the following limits: NCS / ml had maximum values and minimum values of 439.000/ml 2.430.000/ml,

The values of biological parameters, the NCS / ml in the group with clinical mastitis showed the following limits: NCS / ml had maximum values and minimum values of 549.000/ml 2.546.000/ml. Biological parameter values, the NCS / ml group showed endometritis following limits: NCS / ml had maximum values and minimum values of 8.000/ml 171.000/ml,

Biological parameter values, the NCS / ml in group pododermatită revealed the following limits: NCS / ml had maximum values and minimum values of 2.000/ml 121.000/ml,

Analysis results reveal for clinical mastitis lot of animals with SCN / ml has increased the value to the control group 2.315.000/ml where this value is 56.000/ml. Milk from the farm organicmilk is a healthy because the whole control period, the number of milk somatic cells was maintained in our country standards.

The significance of microbial load of milk may make the milk sanitation, protecting consumer health, conservation and physicochemical properties of sensory milk. Contamination of milk with microorganisms dangerous to consumers should be avoided as the usual cleaning milk, currently applied, does not warrant exclusion of the general risk of the presence of microorganisms in raw milk.

Maximum values NTGMA / ml in the control group were healthy and the minimum being 212.000/ml 10.000/ml. These values do not fall entirely within the EU requirements, while indicating the total number of germs and hygiene milking of each animal individually examined. Parameter values NTGMA / ml in the group with subclinical mastitis revealed the following limits: maximum values NTGMA / ml were 1.742.000/ml and the minimum being 85.000/ml, with an average of 1.423 million / ml.

Clinical mastitis cows lot revealed the following limits for biological parameter values NTGMA / ml: maximum values and minimum values of 406.000/ml 1.735.000/ml. Compared with healthy control group where the maximum was 212,000 / ml and the minimum was 10,000 / ml, these values were more elevated. Values NTGMA / ml in cows with endometritis lotulde revealed the following limits: NTGMA / ml had maximum values and minimum values of 4.000/ml 510.000/ml.

Lot of cows with parameter values presented pododermatită biological NTGMA / ml following limits: NTGMA / ml had maximum values and minimum values of 5.000/ml 45.000/ml. Subclinical mastitis cows batch showed the highest average value of girl 1.423.000/ml NTGMA the healthy control group where it was at the 78,000 / ml. Among the hygienic quality of milk and microbial load there is a particular inter-relationship is one of basic criteria

If mastitis occurs in the first two months of lactation by increasing the interval calving-first, lower losses are recorded quality subclinical mastitis milk cows, with reference to increased milk somatic cell count, decreased percentage of fat and protein percentage, which adversely affecting the cost price and can cause problems processing units

Media parameters examined compared with controls where the fat was 4.35%, 3.29% protein, lactose 4.93%, 8.81% South 6.79% and pH was at most of the measurements around lower values.

If pododermatitis fat lot of animals had the lowest value of  $2.74 \pm 0.31$  compared to control group where this new value of  $4.35 \pm 0.47$ . Due to damage the ability of the mammary gland secretion effect was striking in the case of clinical mastitis and less evident for subclinical mastitis. Fat content in cows with mastitis subclinical group was  $4.13 \pm 0.31$  on average, and clinical mastitis in batches of  $3.75 \pm 0.13$ .

Protein content for milk from cows with pododermatită recorded decreases of  $2.99 \pm 0.08$  values compared to control group where this value is  $3.29 \pm 0.26$ . Mastitis milk protein content showed significant changes, mainly casein, which decreases the amount, its place being taken by other proteins, especially whey specific. If clinical mastitis cows with average value of lactose was  $4.58 \pm 0.27$  compared with control group where it was

If the batch of animals with endometritis SUD% is the lowest of  $8.69 \pm 1.03$  compared to control group where this value is  $8.81 \pm 1.15$ . The analysis results can be seen that if the lot of animals with endometritis pH is the lowest value  $6.67 \pm 0.32$  compared to control group where this value is  $6.79 \pm 0.44$ . If the batch of animals with endometritis acidity has increased the value of  $16 \pm 0.140$  T to the control group where this value es

Analysis results reveal for clinical mastitis lot of animals with SCN / ml has increased the value of 2.315 million / ml compared to control group where this value is 56.000/ml. If the lot with subclinical mastitis NTG / ml has increased the value to the control group 1.423.000/ml where this value is 78.000 NTGMA / ml and in those with clinical mastitis was 1.317.000/ml value.

Reducing the number of cows not correlate with the level of milk production this phenomenon is not just a simple bio-statistical findings, but an argument about the strategic choice towards efficiency, that privatization in this area, you can give.

Various studies have indicated that specialty, if subclinical mastitis, a doubling of the number of somatic cells in milk loss occurs on average from 0.5 to 0.7 liters of milk / cow, and found that milk losses throughout lactation varies between 7-9%. Other studies have shown that subclinical mastitis are 20.5 times more present than the damage produced clinical and extremely important (80% of losses in milk, 15% compensation and early weaning and 5% of the cost of treatment. Control group of clinically healthy cows had an average milk production per day in volume of 24.6 liters.

The evaluation of milk collected from cows with subclinical mastitis was a decrease with

a rate of 17.1% compared to the amount taken from healthy cows lot. Clinical mastitis cows lot showed significant changes in the amount of milk coming from this group, with a 48.4% decline in production from the production of healthy group.

Lot of cows with endometritis showed changes in the quantity of milk, with a 36.6% decrease in production with production from the healthy group. The group of cows with lower pododermatită to healthy group was 65.5%.