SUMMARY

Scientific research undertaken to date quantified publish, isolated on the chemical composition of milk.

Milk, „ white blood " contains appreciable amounts of protein, fat, carbohydrates , enzymes, micro and macro minerals, vitamins, characteristics for which it is used in feed for all animals, and especially of man from birth all life as well as in the treatment diet or as a component of medicines or herbal preparations. To obtain these chemical qualities we considered secretion of milk by the mammary gland must be constantly monitored and evaluated to prevent inappropriate secretion because the milk used as food leads to malnutrition, deficiencies and pathological conditions. More population explosion its early XXI century , is accompanied by increasing demand for food the most important share have the animal in milk and milk products is estimated to have the highest nutritional value and the highest.

Epidemiological investigations, morphoclinical, surveillance and nutrition, macroclimate, microclimate, chemical analysis of milk and blood, determining the heart rate and breathing and exam microbionţilor fluid rumen led to the formulation of scientific conclusions greenhouse for literature and for breeders dairy and dairy industry. The research was performed on 75 dairy cows in lactations II, III and IV, the early lactation and maximum Holstein of which were taken by 125 samples of milk and blood, and 5 samples of rumen fluid. The components of macroclimat and Environment were determined with specific equipment. Forage ration was checked periodically and adjusted standards in terms of nutritional value and energy. In the period studied animal nutrition (feeding) was done ration feed consisting of alfalfa, fodder beet mixture of feed concentrates (grain maize, Wheat bran, sunflower meal) premix in the early days of lactation and during maximum lactation and grazing pastures with vegetation characteristic Dobrogea region. External temperature recorded values of -5ºC to 2 ° C in winter, spring and summer 14 ºC to 32 ºC , the wind took the speed up to 60 km / h , humidity was 50 l / m . Microclimate recorded CO2 values of 5.42 mg / l , 2.88 Vol% a 2800 ppm for NH3 of 0.02 mg / l , 0.24 Vol% ; 24 ppm H2S of 0.016 mg / l , Vol% 0.009 a 9 ppm and CO 0.02 mg / l , 0.003 Vol% a 26 ppm.

Lactation cows and milk quality is variable and dependent on hormonal mechanisms , neurohormonal , metabolic profile , biological processes triggered by internal and external factors including feeding and climatological factors were dominant role. Dobrogea region has

specific characteristics , animals on the territory influenced by climate zone , which leaves its mark on the Black Sea coast and relatively different nutrition during the spring , summer and autumn . The research is being supported by the original complex scientific arguments which have practical effect.

Research has shown that there is a significant relationship between cow milk secreted and metabolic profile of the animals, the event being significant increases fat (3.32 %), protein (3.06%), casein (24.46 g /l), a- lactalbumin (0.75g / l), p - lactoglobulin (3.05g/l), protein (0.33g/l) and enzymes (catalase, peroxidase, xanthine oxidase, phosphatase, lipase, protease) (16,60g/l) farm B compared to farm A in summer (peak lactation by the decline thereof) III lactation ($p \leq 0.05$, $p \leq 0,01$, $p \leq 0.001$) reduced and were lower for calcium (1.32g/l), magnesium (0.1g / l), vitamin B1 (0.35 mg / l), vitamin B12 (7.06 mg / l) and vitamin C (20.32 g/l) compared to farms with farm B during spring, lactation II ($p \leq 0.05$, $p \leq 0,01$, $p \leq 0.001$) reduced and variations for dry matter (15.71 %), calcium (1.37g /l), total fat 49,36g / L).

Metabolic status revealed significantly elevated ($p \leq 0.05$) for RBC (6,45mil / mmc), hemoglobin (9,05mil / mmc), hematocrit (29.42 %), mean corpuscular volume (46,32μm³), mean red blood cell hemoglobin (14,55pg), mean red blood cell concentration homoglobină (31,02g / dl), leukocytes (7,32mii / mm³), total protein (9,61g / dl), glucose (45,64g / l), calcium (9,79mg / dl), magnesium (3,32mg / dl), phosphorus (7,72mg / dl), pyruvic transaminase - glutamico (43,54U/I), aspartate transaminase - (88,4U/I) and alkaline phosphatase (187.42U / I) in winter compared to spring and summer periods and lower is distinctly significant ($p \leq 0,01$) for triglycerides (10,88mg / dl), uric acid (1.25mg /dl), amylase (39.89 U/ L) in the three periods studied.

Hormone levels showed significantly elevated prolactin (0,77μUI/ml), follicle-stimulating hormone (0.92M/ml), luteinizing hormone (0,10mUI/L), estradiol (151,4pmol/) and progesterone (0,51nmol / L) in summer (peak of lactation to its regression) compared with the spring (peak lactation). For the three lactations respectively studied II , III and IV of prolactin and luteinizing hormone values were significantly increased follicle stimulating hormone and estradiol values were highly significant ($p \leq 0.001$) reduced and progesterone was elevated significantly distinct ($p \leq 0,01$) .

Rumen fluid revealed the dominance of a large number of species of protozoa that Holotricha genres Isotricha and Order and Order Oligotricha genres Dasytricha Entodinium ,

Diplodinium and Ophryoscolex . Flora was the streptococci bacteria , proteolytic bacteria in different proportions : Bacteroides succinogenes (Fibrobacter succinogenes) 19.5 -20 % Ruminococcus flavefaciens Ruminococcus fibers and 57-60 % , 11% and Clostridium Fibrisolvens Butyribriom lochheadii 3.8 to 4 % .

Results on the major functions of the body showed significantly elevated spring and summer compared to winter heart rate (82.20 contractions per minute) , significantly distinct summer low compared to winter and spring (28.28 breaths / minute) respitatorie rate and body temperature (38,38ºC) showed no significant variations .

The findings have highlighted significant variations and specific characteristics of the geographical area Dobrogea .

CONTENT

List of abbreviations

Hb - hemoglobin

Ht - hematocrit

MCV - mean corpuscular volume

HEM - mean erythrocyte hemoglobin

MCHC - mean erythrocyte hemoglobin concentaţia

A - albumin

B - basophils

E - eosinophils

N neutrophil

A - alpha

B - beta

CO2 - carbon biozid

NH3 - ammonia

H 2 S - hydrogen sulfide

CO - carbon monoxide

TS - total dry

SNF - solids not fat

PLT - platelets

WBC - total leukocyte

TGP - pyruvic transaminase - glutamico

ALP - alkaline phosphatase

AST - aspartate transaminase

FSH - follicle - stimulating

LH - luteinizing hormone