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THE DEGREE OF MICROBIOLOGICAL CONTAMINATION OF THE DAIRY COW CONSUMED WATER

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SUMMARY

In conformity with the recomandations regarding the dairy cows welfare; they should have permanent acces to fresh potable water; in plenty quantity. Drinking a qualitatively unproper water can affect the health and the production of cows (3). The posible consecvences of drinking a microbiologically contaminated water are of such a gravity; that its control must be always of the first importance and never be compromitted. Considering these aspects; the aim of this study was the appreciation of the microbial contamination level of the water consumed by dairy cows. The evaluation was made through determination of the presence and number of coliform bacteria in the water drinked by cows. There were sampled and examinated 30 water samples originated from different sources: spring (2); fountains (13) and waterholes (15). This water is used for drinking by 340 cows in individual households (2-9 cows) and multiple farms with more than 30 cows (3). The coliform bacteria were determinated through the method of multiple tubes; relating their number to 100 ml of water. As results of analysis; there were identified coliforms in all of the examinated samples; in some of cases having extreamely high values. Therefore; the water samples originated from the spring have between 33-130 coliforms/100 ml; samples from wells have between 11-1609 coliforms/100ml (10 samples); and three of the samples have more than 1609 coliforms/100ml water. The water sampled from waterholes: 10 samples showed between 11-1609 coliforms/100ml water; in the same time 5 samples had a smaller number of coliforms; 11-14/100 ml water. The microbial contamination of the water can take place at the source or in the waterhole. American researchers; after different studies; concluded that waterholes are a major source of enterobacterial contamination for the cows (2). Our results; as well; are concordant with those of other authors; showing that the water offered to cows is often of poor microbiological quality; with high level of coliforms and E. Coli O 157; which was isolated in 1;3% of waterholes (1). All the examinated watersamples are microbiologically contaminated; 50% showing extreamely high levels of contamination. The water can not be considered potable and it should not be used for drinking by cows.

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