

**MANAGEMENTUL CALITĂȚII II: CONTROLUL CURĂȚENIEI  
SUPRAFEȚELOR CU SANI-TEST**

**QUALITY MANAGEMENT: CONTROL OF SURFACE CLEANNESS  
BY SANI-TEST**

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**Cuvinte cheie** : proteine, suprafețe, sanitație  
**Keywords**: proteins, surface, cleanness

**Rezumat**

Pentru a fi considerate igienice, suprafețele de lucru, ustensilele și alte echipamente trebuie să nu conțin bacterii, fungi sau reziduuri alimentare bogate în proteine. Trusa de sanitație SANI-TEST indică gradul de igienă după decontaminare, detectând reziduurile proteice ce pot rămâne în urma unui proces de curățare neadecvat. Acest trusă nu este un indicator direct al activității microbiene.

**Summary**

To be hygienic, worktops, cookware, utensils and other equipment in contact with food must be free of invisible residue that food leaves behind which could provide opportunities for microbial growth. The sanitation kit SANI-TEST indicates the hygiene level after cleaning by detecting residuals of protein which can be left behind after inadequate cleaning. The kit does not directly indicate microbial activity.

## RESEARCHES CONCERNING DAMBOVITA RIVER WATER QUALITY IN LACUL MORII AREA

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Key words: surface water, quality parameters, admitted limits, pollution

### SUMMARY

Water, central element in human society life, represents a renewable but irreplaceable resource. From an universal and free of charge stuff like air, it becomes a very high valuable merchandise.

In the present paper it was had in view water quality in Dambovita River, Lacul Morii area, by sampling in three checkpoints: tail of the lake, middle of the lake and dam area.

By sampling there were carried out the following parameters:  $\text{NH}_4^+$ , P,  $\text{C}_6\text{H}_5\text{OH}$ ,  $\text{CBO}_5$ ,  $\text{O}_2$ ,  $\text{Cl}^-$ ,  $\text{SO}_4^{2-}$ ,  $\text{NO}_2^-$ ,  $\text{NO}_3^-$ ,  $\text{Ca}^{2+}$  i  $\text{Fe}^{2+}$ .

The methods used for carrying out the parameters were those stipulated by MMGA 161/2006 and MAAP 1146/2002 standards.

Following the researches it could conclude:

- from the most carried out parameters point of view, Dambovita water is framed in the fifth quality class;
- the increasing of the limits beside the values stipulated in the fifth quality class were for:  $\text{NH}_4^+$  by 1,5 – 1,8 times; phenoles by 1,4 – 5,6 times;  $\text{NO}_3^-$  by 1,4 times;  $\text{NO}_2^-$  by 5 - 9 times;  $\text{Fe}_2^+$  by 2-3 times and sulphates by 1 – 1,3 times.
- water in the Dam section recorded the most values of the parameters which exceed the stipulated limits for the fifth quality class;
- the amount of the phosphorus in the three control sections records the water in the third quality class;
- the phosphorus concentrations in Lacul Morii water carried out the progressive eutrophic process of the lake, contributing to algae development;
- the low concentration in water-dissolved oxygen in Lake Tail section is due to the pollution of water by detergents.

## **THE COPPER POLLUTION AND SHEEP HEALTH IN ISALNITA AND TURNU-MAGURELE AREA**

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Key words: copper; pollution; admitted limits; organs; sheep

### **SUMMARY**

In two areas next to Isalnita Chemical unit and Turnu-Magurele Chemical Unit there were focused on copper concentration in different organs (liver, kidney, spleen) in sheep.

In Isalnita area, the samples were completely sampled from animals in four areas: Isalnita, Almaj, Breasta and Mofleni, situated at different distances beside the Chemical Unit (2, 6, 8 and 12 km).

In Turnu-Magurele area, the organ samples were collected from sheep in three checkpoints, respectively 0,5 and 2 km beside the Turnu-Magurele Chemical Unit and 56 km beside Zimnicea checkpoint.

Copper dosation was made by atomic spectrophotometry and the results interpretation was made conformingly the Health Ministry Order 975/1998.

Following the researches we can conclude:

- Copper concentrations in organ samples, in Isalnita and also Turnu-Magurele area recorded values which exceeded the admitted limits by 1,6 – 21, 6 times;
- The exceeding decreased at the same time with the increasing of the distance to the polluting sources;
- The highest concentration was determined in liver, then in kidney and spleen;
- The large amount of copper in organs, correlated with the clinical signs and the anatomopathological modifications confirms the copper poisoning of sheep in the two areas.

**COMPARATIVE STUDY BETWEEN THE WELFARE LEVEL OF LAYING HENS  
REARED IN HOUSEHOLD UNITS AND THE WELFARE LEVEL OF THE LAYING  
HENS REARED IN ALTERNATIVE SYSTEM**

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Key words: laying hens, welfare assessment, household units, alternative rearing system, Animal Needs Index 35

**SUMMARY**

The researches in this paper work have as aim to compare the welfare level of the laying hens reared in household units and hens reared in alternative system, in southern area of Romania, June - September 2005.

Because our country don't have an official system of animal welfare assessment which to permit comparisons between various in-field situations, regarding the welfare level in flocks, it was used the Austrian assessment system Animal Needs Index 35. This is an integrative numerical system, joining both *animal-based factors* (health status on group level and hens behavior) and *engineering-based factors* (housing conditions and management systems and practices). The factors in ANI 35 assessment sheets were scored by executing some measures and behavior observations at group level or by using the last generation equipments, such as: BK 2250 sound meter (to assess level of noises), Dräger Miniwarn gas meter (to assess air quality), IM5 light meter (to assess light in the shelters), Anemosonic UA6 (to assess draughts speed and turbulence degree). It was applied an improvement of the assessment system in 2 factors among assessment sheets – feathers condition and skin condition – by correlating the ANI 35 sheets with feathers status score and skin status score, methods proposed by R. Tauson in 2004.

The study leads to a final ANI 35 score of 23,5 points in alternative system (that reveals good welfare) and an average ANI 35 score of 18 points in household units (that reveals medium welfare). Among critical situations, could be mentioned: the lack of the health records, the lack of the litter and the grass area for household units; the allowed space per hen too small, the percent of scratching area too small reported to the total floor area for alternative system.