9th Edition of International Conference on **Environmental Science &Technology**

&

48th World Congress on **Microbiology**

&

50th International Congress on **Nursing Care**

June 24-25, 2019 Moscow, Russia

Effects of antibiotics on Saccharomyces cerevisiae strain CNCM I – 1077

Yulia N Kurkina, Irina V Batlutskaya, Violetta V Klueva and **Kristina A Degtyareva**

Belgorod State University, Russia

In the cost of livestock products, 65-70% of the costs are from feed and there is still the problem of shortage of feed protein. As protein additives, fodder yeast is used then the proportion of protein in the cells of which can be up to 2/3 of the dry mass, of which 10% is assigned to essential amino acids. Saccharomyces cerevisiae active yeast does not belong to the normal microflora of the gastrointestinal tract of ruminants, but they have a pronounced ability to normalize the acidity level of the rumen and stimulate cellulose degradation, reducing the likelihood of acidosis and increasing energy extraction from voluminous diet rations and it is believed that the yeast in the composition of feed additives are not sensitive to antibiotics and can be used simultaneously with them, preventing dysbacteriosis. The task of this work was to study the effect of antibiotics on S. cerevisiae strain CNCM I – 1077 of cattle feed additive for cattle Lewisel SC Titan Plus. Recorded the number of colonies on Saburo agar with the addition of antibiotics Enroflon, Florfenicol, Kvinocyclinum, Pulmokit, Soladoxy 500, Solamox, Sulteprim, Tilmipul, Tilmozin, (relative to the control, in percent). It can be seen that the preparations Enroflon, Pulmokit, Solamox, Sulteprim, Tilmozin inhibited the growth of yeast colonies, and Enroflon and Tilmozin reduced the number of colonies of S. cerevisiae by 22 and 36%, respectively. Interestingly, Florfenicol and Kvinocyclinum increased the number of yeast colonies by 14%, and Tilmipul - by 27%. Therefore, with the ineffectiveness of tetracycline antibiotics Soladoxy 500, Solamox, Sulteprim, which are neutral to S. cerevisiae, it is recommended to use Tilmipul macrolide or amphenicol Florfenicol, or fluoroquinolone Kvinocyclinum. Thus, when veterinary preparations were added to the nutrient medium it was found that the number of S. cerevisiae colonies Pulmokit and Soladoxy antibiotics did not change.

Recent Publications

1. Coton E, Coton M, Levert D, Casaregola S and Sohier D (2006) Yeast ecology in French cider and black olive natural fermentations. Int. J. Food Microbiol 108:130-135.
2. Kurkina YuN, Ngo Thi Lan Huong and Lazarev A V (2017) Feature of morphology and biology of broad bean samples in the south of the central black earth region (Russia). International Journal of Green Pharmacy 11(3):494-497.
3. Kurkina YuN, Ngo Thi Ziem Kieu and Lazarev A V (2018) Screening of Broad Bean Samples with Anthocyanin in Seed Coat in the South of the Central Black Earth Region (Russia). Indo American Journal of Pharmaceutical Sciences 05(07):6430-6433.
4. Suzzi G, Romano P, Ponti I and Montuschi C (1995) Natural wine yeasts as biocontrol agents J. Appl. Bacteriol. 78:304-308.

Biography

Yulia Nikolaevna Kurkina studies microscopic fungi as an object of applied research in the field of producer biotechnology, fodder production, plant pathology and plant protection. Based on her research, a collection of micromycete strains with high enzyme activity (phenol oxidase, cellulase) was obtained, fungi with mycophilic properties were selected, yeast strains with high protein content were selected.

kurkina@bsu.edu.ru

Notes: