



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">European Journal of Nutrition &amp; Food Safety</a>                                       |
| Manuscript Number:       | Ms_EJNFS_39486  |
| Title of the Manuscript: | Novel Combination contains probiotic bacterial and yeast strains to reduction of Aflatoxin M1 in Milk |
| Type of the Article      | Original Research Article   |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/journal/30/editorial-policy>)



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**PART 1: Review Comments**

|                                     | Reviewer's comment   | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
|-------------------------------------|--|---|
| <b>Compulsory</b> REVISION comments | <p>AFM1 is an important contaminant of milk products and due to the importance of this foods for children, the investigations of possible remediation procedures, and especially those that may be applied during industrial processes are of interest. So, the aim of this paper that reports the possible use of a cocktail of microorganisms to reduce AFM1 contamination in milk during fermentation is of interest.</p> <p>However, as it, this paper suffers from important defects that make it not acceptable for publication.</p> <p>Here are the major ones:</p> <ul style="list-style-type: none"> <li>- There are many publications dealing with the same subject and the interest of this specific study is not clear. It seems that the strains used here were already characterized for their ability to bind AFM1 in previous assays. So why testing them again? What is the bonus of this study? It could have been the preparation of a mixture of microorganisms but it is not clearly explained. Moreover, this part of the study is not clearly described or lack some experiments. Since the cocktail is more efficient than microorganism alone, it would have been interesting to work on a precise definition of the best cocktail by testing the efficacy of different ratios between the microorganism used here.</li> <li>- There is no statistical analysis of results. It is therefore impossible to see if the differences that could be observed between the tested conditions are significant or not.</li> <li>- The presentation is not satisfactory. There are plenty of tables showing almost the same thing (tables 1 to 3 and tables 6 to 8). Moreover, the results presented on the tables are rewritten in the text of the article instead of interpreting them of presenting the data using another form. On the same way, there are 2 tables (11 and 12), and 2 figures (2 and 3) to present the organoleptic analysis. All these illustration report almost the same data and are redundant.</li> <li>- The interpretation of SEM analysis is quite strange for me. The authors suggest that spots on the walls of treated microorganism are due to AFM1 absorption. Does it suggest that SEM allows the AFM1 visualisation? It would be very surprising.... There is no explanation of such an affirmation.</li> <li>- English as to be strongly and deeply checked since, as it, the text is hardly understandable due to miscellaneous mistakes (typing, grammar, sentences...)</li> </ul> |   |
| <b>Minor</b> REVISION comments      | <p>Here are listed some remarks according to their appearance (those related to English language are not listed here)</p> <p>Abstract: "non viable strains"... of what? <b>Did</b></p> <p>Introduction, line 38: AFM1 is more specifically a problem of food safety than a problem of Hygiene <b>done</b>.</p> <p>Lines 49-51: all Latin names have to be written in italic, which is the case for all names of bacterial or yeast species. <b>Done</b></p> <p>Line 52: since many previous studies are available, authors have to indicate, at the end of the introduction, what is the aim and interest of this specific study compared to all those that were previously published. <b>Done</b></p> <p>Material and methods: what is the origin of strains used here? <b>Done</b></p> <p>Line 87-89: the number of cells was determined using DO mesurment. Was a calibration curve done before, <b>we did not make calibration curve but we measured the bacterial count</b></p>   |   |



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|                                  | <p>using haemocytometer.</p> <p>Table 1, last line: in the mixture of microorganism, were each strain placed at a concentration of <math>5 \times 10^9</math> CFU/ml or was it the sum? In that later case, what is the number of each strain? It would have been very interesting to test different mixtures. The number of the cells was unique in all the study.</p> <p>Lines 110-114: When living cells were used, how can the authors be sure that the toxin was adsorbed? It could also have been metabolised by microorganisms into another compound. Authors added the word "metabolized" to solve this problem.</p> <p>Lines 138-145: although the thermal treatment is important, was its efficacy verified? Are the authors sure that all microorganisms were killed? Yes we are sure.</p> <p>Since only non-viable microorganisms were tested for AFM1 detoxification of milk, why having performed tests with living cells before? Because nonviable means; both bacteria and yeasts are living whenever, viable means bacteria are living but yeasts are dead.</p> <p>Line 218: why boiling the milk before inoculation? Was it raw milk? It wasn't heat treated before marketing? Done</p> <p>Since milk was transformed in yoghurt, the title of the paper is not completely correct. In all results, the authors describe the results obtained by others in previous studies but there is no comparison with what was found here... Is it in agreement? Contradictory? What is the new information brought here? Done.</p> <p>Line 323: what means Cerelac? (it is a commercial baby food and it is common in Egypt)</p> <p>Line 325: what means coctile? (It is kind of combination of probiotic bacteria and yeasts).</p> <p>Data presented in table 11 and figure 3 are exactly the same. Only one shall be kept. Figure 3 was deleted.</p> |  |
| <u>Optional/General</u> comments |   |  |