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| Book Name: | [**Research Perspective on Biological Science**](https://www.bookpi.org/bookstore/product/research-perspective-on-biological-science-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_5920** |
| Title of the Manuscript: | **Variations in Nutritionally Significant Organic Components of Milk Depending on the Energy Status of Simmental Cows** |
| Type of the Article | **Book Chapter** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**Asian Journal of Research in Animal and Veterinary Sciences, 8(2): 183-192, 2025.**

**DOI: 10.9734/ajravs/2025/v8i2346**

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | The study investigates how the ****energy status**** of ****Simmental cows**** during early lactation (peripartal period) affects the ****organic composition of milk****, specifically levels of fats, protein, lactose and dry matters.It aims to use these milk parameters to assess ****nutritional balance****, detect ****metabolic disorders****, and optimize both ****milk quality**** and ****reproductive performance.**** - Proper energy-protein balance in cow diets is essential to maintain metabolic stability, especially during early lactation, a critical phase characterized by high physiological demands.  - Milk composition (urea, fat, protein ratios) reflects metabolic and nutritional status, offering a non-invasive diagnostic tool.  - Evaluating the relationships among milk components to identify potential dietary imbalances in cows, aiming to ensure high nutritional quality of milk intended for human consumption while simultaneously preventing metabolic disorders and reproductive problems in the animals. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | An alternative title is prefered Variations in Milk's Nutritionally Important Organic Components Based on Simmental Cows' Energy Status |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | The abstract of the article is informative and comprehensive |  |
| **Is the manuscript scientifically, correct? Please write here.** | The manuscript is scientifically, correct. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | The references are sufficient and almost recent |  |
| Is the language/English quality of the article suitable for scholarly communications? | The language/English quality of the article suitable for scholarly communications |  |
| Optional/General comments | This study conclude that:  - **Energy-protein balance in feed** is vital for both **milk composition** and **cow fertility**.  - Monitoring **milk urea and protein levels** is a **cost-effective diagnostic approach**.  -Study supports incorporating **milk biochemistry analysis** into **routine farm management**.  - Reinforces the importance of **modern feeding technology** to prevent negative energy balance, especially in high-yielding cows.  S**urveys found diet misalignment during the dry phase, reinforcing the need for targeted dietary adjustments.** |  |

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| **PART 2:** | | |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in detail)* |  |

**Reviewer details:**

**Iman Mohamed Kamel Abumourad, Egypt**