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Transition to Cellular Nutrition as a Solution to Reduce Threats to Environmental Stability

Nutrition is the process of supplying the organism with substances that have certain useful characteristics for the organism. It is through the process of nutrition that the organism receives the necessary amount of energy required for normal life activity.
The cell is a structural and functional unit of the human body, and it is from a set of similar formations that tissue, organ, and organ systems are formed. Consequently, each cell of the body must receive the necessary supply of nutrients in order to continue its normal functioning.
Cellular nutrition is the ability of each cell of the human body to consume nutrient molecules in the amount they need. In this case, the object of the study is just that nutrition, which begins with the nourishment of an individual cell.
This article presents the results obtained by analyzing the data regarding the process of making the cell's consumption of the right nutrients while taking into account how the transition to cellular nutrition affects the environment and its constituents.

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Evaluation of Heavy Metals in Commercial Baby Foods

Nutritious and safe foods are essential to meet normal physiological and metabolic functions. This study evaluated heavy metals in selected food products for newborns and toddlers. These substances may result in adverse health risks and young children are extremely vulnerable due to their immature immune systems and organs. Industrialization and technological advancement have contributed to an increase in heavy metals in the soil; therefore, entering the food system in potentially harmful amounts. Safe levels have been established by monitoring agencies to reduce the presence of heavy metals. Ten national brands of baby foods were analyzed for selected heavy metals. The main ingredients ranged from vegetables, fruits, dairy, poultry, meats, and grains. The products were analyzed in triplicates using QQQ-ICP-MS instrumentation to detect the presence of arsenic, cadmium, zinc, lead, nickel, aluminum, and chromium. Based on the Agency for Toxic Substances and Disease Registry [1] guidelines for safe quantities, aluminum (4.09 µg/g and 2.50 µg/g) and zinc (33.5 µg/g 69.5 µg/g, and 30.2 µg/g) exceeded the recommended levels of 1 µg/g/day and 2 - 3 µg/g /day respectively. Mixed model analysis found significant differences in metal concentrations ($F_{6,24} = 2.75$, $p = 0.03$) with an average metal concentration of 0.96 µg/g. However, no significant correlations were found between the packaging materials used and the observed metal concentrations in the food samples. The study concluded that the presence of heavy metals may be due to food type and the soil on which it is grown and not the packaging materials, establishing food system contamination by heavy metals.

Review Article **Published Date:-2024-02-13 16:16:53**

Determinants of Rural Women's Participation in Agricultural Cooperatives in Burundi: The Case of the TWITEZIMBERE and REKATUJANE Rice Cooperatives in the GIHANGA Commune

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This article shows the driving factors of rural women's participation in the TWITEZIMBERE and REKATUJANE rice cooperatives in the GIHANGA commune. These factors are related to the preservation of traditional culture in Burundi in general and in rural areas in particular, where women are in the majority. To achieve this, the research methodology used is both qualitative (individual interviews and documentary research) and quantitative (questionnaire administered to respondents). The results of this research show that traditional culture has forced rural women to stay at home to care for children and perform various household chores. This situation of isolation leads to a lack of information about the benefits of rice-growing cooperatives and the value they can bring to their members. It is also observed that rural women lack the will to adopt the new rice farming practices in Cooperatives. This situation of lack of will to adopt new behavior has hindered the massive participation of rural women in rice cooperatives. Finally, the article emphasizes that the illiteracy of these rural women and the lack of external technical and financial support are considered other important factors that constituted the barriers to their massive participation in rice cooperatives. To deal with this series of problems, the researcher has discovered strategies that can encourage rural women to participate massively in rice cooperatives, in particular, to become members of rice cooperatives that help their members to make them known and receive external technical and financial support, for example, incentives from the government. For this, the Government must therefore help them by providing multifaceted support including local and foreign technical and financial partners. Similarly, cooperative leaders might seek out various donors for their agricultural cooperative associations.