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ARTICLE INFO

Received: 19.06.2023

Revised: 10.08.2023

Accepted: 20.08.2023

Publish online: 27.08.2023

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CITATION

Al Salihi Karima Akool, Zaman kh. F. AL-Mhsenawi, Zainab Hamed Awad, Rukaya Mohsen Ali (2023). A comparative study between red and white meat: a literature review MRVSA. 12 (2): 1-9.

Doi: <http://dx.doi.org/10.22428/mrvsa-2023-00122-01>

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A COMPARATIVE STUDY BETWEEN RED AND WHITE MEAT: A LITERATURE REVIEW

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ABSTRACT

Meat is a significant part of human diets, providing essential nutrients and playing a role in various culinary traditions. Therefore, this review article aims to focus on the physical-chemical characteristics and the contents of some mineral elements of red meat, compared to white meat, by reviewing the publications and previous studies conducted on this subject. Previous studies concentrated on comparing chicken meats to sheep, cows, and goats. Published studies showed differences in moisture, protein, ash, and other mineral elements such as potassium, calcium, magnesium, zinc, iron, manganese, and copper, and some toxic heavy elements, such as cadmium, lead, and chromium. Published articles showed that poultry breast meat had the highest protein content, averaging 21.99%. In contrast, the muscle of sheep and cow carcasses had the highest fat content, with an average value of 9.67%. The percentage of ash was 0.7% due to the low percentage of moisture. As for poultry meat, previous studies showed an average increase manganese, magnesium, and zinc levels in compare to sheep and cow meat, with high levels of potassium, iron, and zinc. In contrast, the published research showed a lack of copper in poultry and sheep meat. Previous studies have shown that there is a discrepancy in the content of the heavy metal elements lead, cadmium, and chromium between poultry, sheep meat, and cow meat, and its dependence on the highest and lowest level acceptable by FAO/WHO, which is 0.1 ppm for lead, 0.05 ppm for cadmium and 1 ppm for chromium in poultry. The researcher recommends implementing this study on the ground as a practical study to evaluate the physical and chemical characteristics of red and white meat and conducts actual comparisons between them, especially in the meat produced locally from Iraqi animals.

Keywords: cows, chicken, chemical composition, copper, Manganese, Potassium, Sheep.

Doi: <http://dx.doi.org/10.22428/mrvsa-2023-00122-01>