

OBJECTIVE

Due to the high demand for proteins and sustainability problems due to meat, the aim objective is to present the mycoprotein as an alternative to meat, showing all its benefits from a bibliographic review

Graphic 1: Protein requirements depending on the type and level of the activity developed

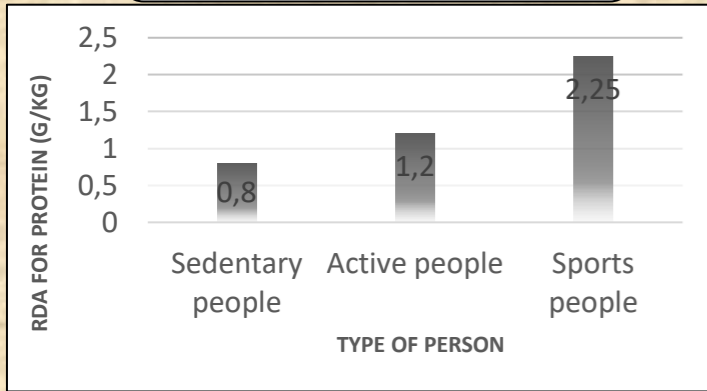


Table 1: Nutritional information for 100 g of mycoprotein (wet weight)

Nutrient	Quantity
Energy, kcal	85
Protein, g	11
Total fat, g	2.9
Saturated fatty acids, g	0.7
Monounsaturated fatty acids, g	0.5
Polyunsaturated fatty acids, g	1.8
Total Carbohydrate, g	3.0
Sugars, g	0.5
Dietary fiber, g	6.0
Cholesterol, g	0

Nutritional Claims

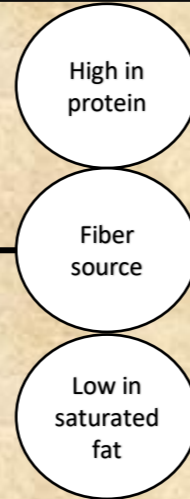


Figure 1: Greenhouse gas production and use of water to produce a 30 g of protein from different foods

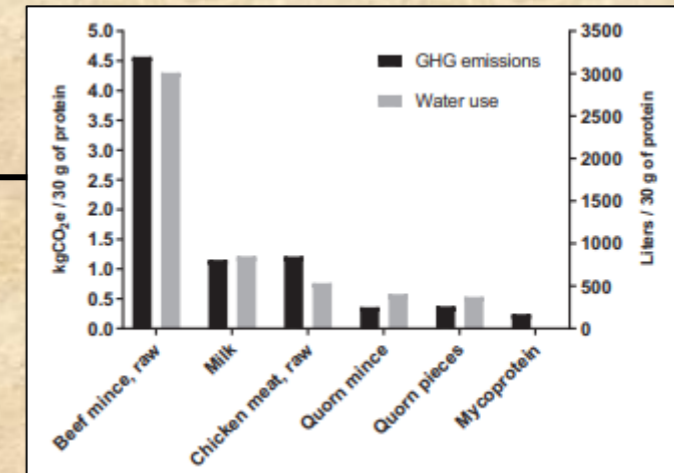


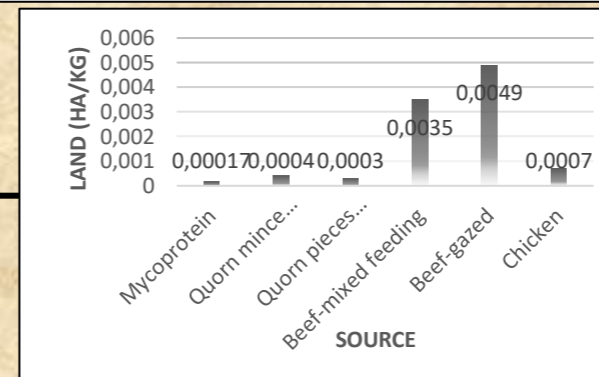
Figure 2. Market products



Table 2: Amino acid content of mycoprotein and protein milk for 100 g

Amino acid	Grams per 100 g of mycoprotein (dw)	Grams per 100 g of milk protein
Alanine	2.8	2.6
Arginine	3.3	2.6
Aspartic acid	4.6	
Cystine	0.4	0.2
Glutamic acid	5.6	16.7
Glycine	2.0	1.5
Histidine	1.6	1.9
Isoleucine	2.4	2.9
Leucine	3.9	7
Lysine	3.8	5.9
Methionine	1.0	2.1
Phenylalanine	2.3	3.5
Proline	2.0	7.3
Serine	2.3	4
Threonine	2.5	3.5
Tryptophan	0.8	
Tyrosine	1.8	3.8
Valine	2.8	3.6
EAA's	20.9	30.4
NEAA's	24.6	38.7
BCAA's	9.0	13.5

Graphic 2. Comparative land use per kg of product



BIBLIOGRAPHY:

- Mariana O.C. Coelho*, A. J. M., & Francis B. Stephens, and B. T. W. (2019). *Mycoprotein as a possible alternative source of dietary protein to support muscle and metabolic health protein*. <https://watermark.silverchair.com/nuz077.pdf>
- Dunlop, M. V., Kilroe, S. P., Bowtell, J. L., Finnigan, T. J. A., Salmon, D. L., & Wall, B. T. (2017). *Mycoprotein represents a bioavailable and insulinotropic non-animal-derived dietary protein source: A dose-response study*. *British Journal of Nutrition*, 118(9), 673–685. <https://doi.org/10.1017/S0007114517002409>

CONCLUSIONS:

- Proteins have an important role in recovery for athletes
- The global increase in meat production and consumption is associated with environmental and health problems
- Mycoprotein is a source of nutritious and sustainable protein
- It can help to maintain healthy blood and promote muscle synthesis, help control blood glucose and insulin and increase satiety