

USER-FRIENDLY NUTRIENT PROFILING CALCULATOR

A web-based nutrient profiling calculator designed to evaluate overall healthiness and nutritional quality of food and beverage products.

Problem / Market Need

Despite growing awareness of the links between diet, health, and Non-Communicable Diseases (NCDs) consumers, policymakers, and even food manufacturers often lack easy access to reliable, objective, and consistent tools to assess the nutritional quality of foods. Classification of foods based on their nutritional composition is crucial for implementation of regulations, informing health initiatives, guiding food and nutrition policies, food labeling, taxation, and applying restrictions on marketing.

Description of Solution / Technology

The NutriRank online nutrient profiling calculator was developed by Dr Mariaan Wicks from North-West University (NWU) using dual, science-based nutrient profiling models (NPMs) tailored to the South African regulatory standards. This versatile tool is suitable for use by both government and the food industry to support compliance with regulations related to nutrition and health claims, as well as front-of-pack warning labels. In addition to assessing the overall nutritional quality of foods, NutriRank also supports product reformulation by enabling direct nutrient comparisons. The tool supports bulk data import/export and can be customized to align with shifting public health goals and regulatory changes.

Key Benefits / Advantages

- Developed by an academic institution; free from industry bias
- Founded on validated NPMs for objective food classification
- Suitable for government, industry, researchers, and NGOs
- Aligned with South African food labelling laws, including warning labels and health claim criteria.

Applications / Relevant Industries

Nutrient profiling has a broad category of users and applications. The key user groups include:

- Food Industry: Product development, reformulations and regulatory compliance
- Government and Health Organizations: Policy development, marketing restrictions, establishment of informed health initiatives, determine health taxes
- Consumers: Understand nutritional quality of foods to make healthier and/or informed food choices
- Other Industries: to strengthen education and practices (e.g. Insurance industry, Researchers/Academics, Dietitians, Pharmacists, Food technologists)

Stage of Development

The main tool is fully developed and in active use. Its structure and evaluation criteria have been validated to ensure accurate classification of food and beverage products. Improvements continue to be implemented based on user feedback, including the integration of tailored features. Additionally, the team regularly updates and manages the database to keep the products information up to date and relevant.

Intellectual Property Status

The IP portfolio for NutriRank includes copyrights, proprietary know-how, and registered trademarks*, along with domain name registration to maintain brand integrity. The collection, verification, and ongoing management of the data are vital components of the tool and are safeguarded under database rights.

Opportunity

The NWU invites government entities, food manufacturers, medical insurers, NGOs, healthcare providers, and researchers to license the scientifically designed and scalable online nutrient profiling calculator. Licensing options include exclusive or non-exclusive agreements tailored to the various sectors and uses. NWU also offers back-end and data management services to keep the tool current







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