PO34. UPCYCLING MELON BY-PRODUCTS: DEVELOPMENT OF A NUTRIENT-RICH AND SUSTAINABLE PASTA

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INTRODUCTION: Food waste is a growing concern worldwide, directly impacting the economy, society and the environment. One key aspect of this issue is the limited time to utilize the resources before they become waste. Therefore, optimizing food waste management becomes a crucial issue for ensuring food availability and sustainability. The valorization of fruit by-products offers an opportunity to develop new foods with added nutritional benefits while promoting a more efficient and time-conscious use of natural resources.

OBJECTIVES: This study aimed to develop a pasta with melon peel and seed flours (by-products) incorporation and evaluate their nutritional potential.

METHODOLOGY: In 2022, melon by-products were recovered from melon production and distribution companies. The melon peels were dehydrated, and the seeds were dried in an oven. Afterwards, by-products were ground to obtain melon peel flour and melon seeds flour, which were then roasted. The nutritional composition of these flours was analytically determined. The energy value and available carbohydrates were calculated. Antioxidant activity was determined using two different methods: 2,2-diphenyl-1-picrylhydrazyl and ferric reducing antioxidant power. Total phenolic content was also assessed.

RESULTS: The incorporation of melon by-products flour allowed the development of a nutrient-rich pasta (tagliatelle) containing 4 g/100 g of dietary fibre, making it a source of fibre according to Regulation (EC) No 1924/2006. Moreover, these flours increased the levels of total phenolic compounds (1786 mg of gallic acid equivalents/100 g), thereby enhancing the product's antioxidant capacity.

CONCLUSIONS: This work highlights the potential of melon by-products, demonstrating that their integration into food formulations not only enhances relevant nutritional properties to health over time but also contributes to reduce food waste and environmental impact. Additionally, the incorporation of dietary fibre in innovative food products may contribute to better glycemic control and satiety throughout the day, aligning with the role of nutrition in dietary patterns.

PO35. HOW DO WORLD FOOD-BASED DIETARY GUIDELINES FULFILL THE FAO'S PRINCIPLES TO PROMOTE SUSTAINABLE HEALTHY DIETS?

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INTRODUCTION: The FAO defines Sustainable Healthy Diets as dietary patterns that promote health and wellbeing, have low environmental impact, and are accessible, affordable, safe, equitable, and culturally acceptable. A key strategy for their implementation is the development of national food-based dietary guidelines (FBDGs), integrating health, environmental, and social sustainability to support food education and address obesity and undernutrition. Portugal has had an FBDG since 1977, updated twice in the last decade. A recent study found that while most FBDGs align with health principles, they fall short on environmental and social sustainability.

OBJECTIVES: To analyse the compliance of world FBDG with the FAO's guiding principles.

METHODOLOGY: 71 FBDGs written in English, Spanish and Portuguese were collected from the online repository developed by the FAO. Only the 2015 FBDGs were included for analysis, and for those versions where the updated version was not available on the FAO website, a search was made to read the updated version. FBDGs that only addressed children's diets, or another specific population, were excluded. After applying the inclusion and exclusion criteria, 28 FBDGs were selected and then analysed for their adherence to each of the guiding principles.

RESULTS: There were high levels of inclusion of factors related to health outcomes (principles 1 to 8), with the respective percentages of inclusion: 39%, 75%, 79%, 61%, 68%, 50%, 71%. The environmental impact and socio-cultural aspects of the diet were considered less frequently. For environmental impact (principles 9 to 13): 18%, 14%, 18%, 11%, 18% of inclusion, respectively, and for socio-cultural aspects (principles 14 to 16): 46%, 32% and 25% of inclusion. The most recent FBDGs include more of these aspects.

CONCLUSIONS: We conclude that for most of the FBDG, an update is necessary to increase compliance with social and environmental issues, namely in Portuguese Food Guide.

PO36. OGM NA ALIMENTAÇÃO INFANTIL: PERSPECTIVA PARENTAL

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INTRODUÇÃO: O crescimento populacional tem motivado a discussão sobre a utilização de Organismos Geneticamente Modificados (OGM), considerando a sua capacidade em aumentar a produtividade agrícola. Contudo, a introdução de OGM na alimentação, em especial na infantil, gera controvérsias, exigindo uma análise das percepções e dos comportamentos parentais de forma a promover escolhas conscientes e informadas.

OBJECTIVOS: Avaliar a percepção dos pais face à presença de OGM na alimentação dos filhos, compreender se essa informação altera a escolha alimentar e identificar o nível de conhecimento parental sobre a temática.

METODOLOGIA: Estudo transversal que procedeu à avaliação do conhecimento dos participantes relativamente aos OGM e os seus comportamentos face à presença de OGM nos produtos alimentares adquiridos. Os dados foram recolhidos através da aplicação de um questionário *online*, que recolheu igualmente, dados sociodemográficos. A recolha de dados decorreu entre os dias 2 e 30 de Abril de 2024.

RESULTADOS: Foram recolhidos dados de 101 encarregados de educação (78 do sexo feminino e 23 do sexo masculino), com idade compreendida entre os 30 e 72 anos. A amostra apresentou, maioritariamente, licenciatura (51,49%) como grau académico, um rendimento mensal líquido superior a 2500€ (44,55%) e percepção de conhecimento "básico" sobre OGM (51,61%). Contudo, 27,72% identificou correctamente os objectivos da modificação genética. Cerca de 64,35% não verifica a presença de OGM nos alimentos adquiridos e 45,54% alteraria a escolha alimentar se fosse informado sobre a existência de OGM.

CONCLUSÕES: A discrepância entre a auto-percepção de conhecimento e o conhecimento real destaca a necessidade de intervenções educativas que melhorem a literacia em OGM. Uma informação clara e acessível pode promover mudanças nos hábitos de consumo, permitindo escolhas conscientes na alimentação infantil.