FOS AND GOS AS FUNTIONALS SWEETENERS



Imane Al Baitar Jeradli February 2024

OBJECTIVES

- Find out if the fos and gos have been gaining importance over the last few years in the diferents products
- How the consumtions causes a benefit against deficiencies and diseases of greats importance today.
- Reserch about de methos of obtaining them



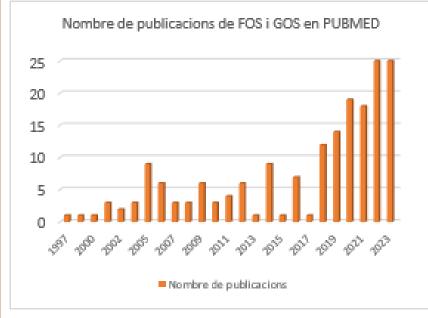


Figura 1 Dades del nombre de publicacions de FOS i GOS al llarg dels anys publicades en la plataforma PUBMED



Figura 2 Dades del nombre de publicacions de FOS i GOS al llarg dels anys publicades en la plataforma Mendeley

2 CHARACTERISTICS

- Low caloric intake
- Brings a feeling of satiety
- They contribute to the control of body weight
- They reduce constipation
- They have a low glycemic index

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FUNTIONAL EFFECTS

- Prebiotic effect
- Reduce risk for colon cancer
- Increase in the absorption of minerals
- Generation of short-chain fatty acids and reduction of cholesterol
- Sugar substitute benefits for diabetics

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One step bioprocess

Microbial fermentation

PROCESSING

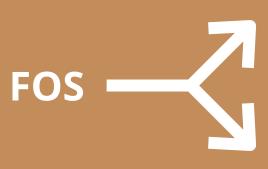
One step bioprocess

Two steps bioprocess

Enzym immobilitation

Nanofiltration

3 OBTENTION



fructosyltransferase

endo and exoinulinases

GOS —

β-galactosidase



- Concentration of Sucrose and Lactose
- pH and Temperature
- Origin of enzime
- Time of hidrolisis

CONCLUTIONS

- The interest in these compounds and the demand is constantly increasing
- The most effective and standardizable method is the enzyme method
- Further research is being done to obtain higher
 The
- The concentration of the substrate and the origin of the enzyme are important for the reaction.
- Further work is needed on the yield of the reaction and the purity of the final product