### **YARUP**



#### Yacon syrup as novel source for prebiotic-based

sugar alternative

**Food Department** 

C Celabor 2023

#### WHAT IS IT?

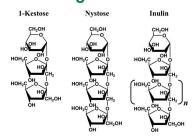
Yacon is an Andean root containing high amounts of fructooligosaccharides (FOS). FOS, known as inulin-type fructans, are short-chain molecules presenting a naturally sweet taste and a prebiotic effect: they are able to resist the hydrolysis of enzyme in the human digestive system.

#### **Yacon tubers**



Andean root Low content in sugar High content in FOS

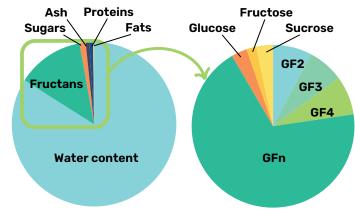
#### **Fructooligosaccharides**



Short-chain fructans Naturally sweet taste Prebiotic properties

# Yacon tubers *Rojo* nutritional composition

Fructans, FOS and sugars repartition



Key figures (dry basis)

73% Total fructans

**7%** Total sugars

**34%** inc. FOS (GF2, GF3, GF4)

#### **SYRUP PROCESSING**



Gentle processing



Preservation of FOS content: prebiotic rich



Good functional and sensory properties:

natural sweet taste



Good stability

**50%**Total fructans
(dry basis)

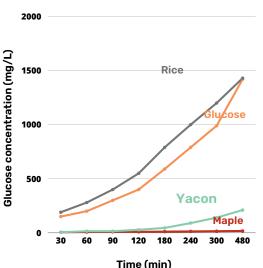
32% Short-chain

fructooligosaccharides

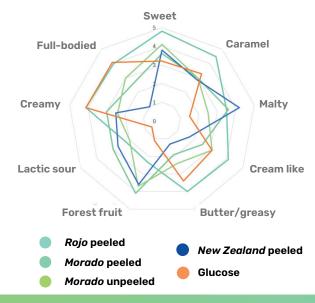
(dry basis)

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# *In-vitro* Glucose release of different syrups



# Sensory attributes of yacon syrups from different varieties



# Incorporation of yacon syrup in cereal bars and sweetness ranking comparison

