

Properties and benefits of β -glucans

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Objectives

- Know the structure
- Studying the different benefits
- Expose their properties and uses in the food industry

Method

- Literature review

Benefits

- ↓ Cholesterol levels
- ↓ Glycemic index
- ↓ Infectious disease
- ↓ Cancer
- ↑ Immune system response
- ↑ Satiety









Properties

- Viscosity
- Solubility
- Gelation

Security

- EFSA accepts 3g/day (minimum)

Structure and sources of origin

Type of β -glucans	Structure	Overview
 Bacteria		β -(1 \rightarrow 3) linear
 Mushrooms		β -(1 \rightarrow 3) with shorts β -(1 \rightarrow 6) ramifications
 Yeast		β -(1 \rightarrow 3) with long β -(1 \rightarrow 6) ramifications
 Cereals		β -(1 \rightarrow 3) / β -(1 \rightarrow 4) linear

Conclusions

- In the **food industry**, the β -glucans of barley and oats are used as additives: improved stability, resistance and elasticity
- The **benefits** caused by β -glucans of **cereals** are better known than others sources
- Important **continue** with **research** the mechanisms that produce this benefits